Abstract:
Located strategically between three continents which hold thousands of markets and industrial global zones, the Suez Canal is considered to be the shortest link between the east and the west due to its unique geographic location. This importance is getting augmented with the evolution of maritime transportation of the world trade, being the cheapest means of transportation, whereas more than 80% of the world trade volume is transported via waterways.

Saving the distance for ships has its potential effect on the cost of time and on operational costs for materials and commodities that are shipped through the Canal, maximizes this importance.

After the Egyptian revolution on 2011 and the increasing need to develop the national economy of Egypt, a major project to develop the Suez Canal passage way was launched by the Egyptian government on 2012.

This paper aims to investigate the impact of developing the region of the Suez Canal passage on Egyptian economy and the world economy. In order to achieve this purpose a research methodology consisting of literature review is used to achieve an in depth understanding of the importance of Suez Canal in global trade. Second part of the paper investigates the plans laid by the Egyptian government to develop the corridor as a world logistics hub. The third part introduces the idea of constructing a similar route of Suez Canal in Sinai to maximize the benefits of the developed area and the impact this can have on Egyptian and global trade.

Keywords:
Suez Canal, Egypt, Egyptian Economy, Economy, world trade, maritime transportation

JEL Classification: A30, A19, A10
Introduction

Located at the passageway between Asia and Europe the Suez Canal Region plays a strategic role in international trade. The project of developing the Suez Canal corridor, which is covering both sides of the Canal represents the first integrated and structured approach to seize the economic potential of this unique location\(^1\).

Given the continued growth in world trade, the increased need for market proximity and supply chain responsiveness, the determination for Egypt to take advantage of this asset has never been stronger. It is the Government of Egypt’s intention to develop the region to transform it into an economic International hub thus contributing to long term development \(^1\).

Vision:
The main aim is to transform the corridor to be a pioneer zone in maritime transport industry in the world and to make it a kernel for a future industrial zone around the Suez passage. The vision is for Egypt to play a more important role in the global trade system and in supply chain management. The seaborne trade constitutes 80-90\% of global trade volumes and 70-80\% of global trade value. Such huge shares of world trade volumes and values are considered alone a major asset in developing the region\(^2\).

\(^1\) AbdelMonsef, March 2013, Marlog 2013- Redefining Suez Canal region – Port of World trade.  
\(^2\) The Technical Secretariat for the Suez Canal Corridor Development – SCC, May 2013
Importance of Suez Canal:
Maritime transportation is considered one of the most efficient ways of transportation in global trade due to its low cost in comparison to other methods of transportation. About 80% of the world trade depends on maritime transportation, 20% of this volume passes through Suez Canal each year. An average of 49 of various types of vessels passes through the canal daily in both directions. That's an average of 650 million tons of raw materials, semi-finished materials and finished materials per year and a total of 17885 vessels passing per year (3).

A Logistics Hub:
The world trade has been directed in the past years towards globalization and the economics of large capitals which lead to an increase in the amount of transported goods

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and materials around the world. These systems have forced the necessity to control the costs of transportations and manufacturing \(^4\).

In the past years Egypt scored 90 on the Enabling Trade Index (ETI) which is a very low grad. On the Logistics Performance Index (LPI) scored 92. The ETI measures factors, policies and services that facilitate trade in goods across borders and to destinations. LPI measures the capacity of the country to efficiently move and connect manufacturers and consumers with the international markets. Egypt scored a much higher score in Linear Connectivity Index (LCI) where it holds the 16\(^{th}\) position. All these indicators showed that the problems are linked to the procedures not to the physical infrastructures \(^5\).

**More than just Logistics:**
According to the above mentioned indicators by adopting the logistics industry in the Suez Corridor it can be a kernel for more industrial zones and Egypt will be transferring from facilitating traffic to facilitating trade thus participating in a strong manner in the world trade \(^6\)

**Objectives:**
The ambition to establish such a global hub requires the strategic alignment of the legal, economic, administrative and planning frameworks at both national and regional level. The Regional Development Plan and its Master Plans will provide a detailed roadmap to achieve this ambition \(^7\).

It is expected that the Plans will address the objectives of the government and the people for this project:
- Increase export and develop international trade.
- Create areas of international maritime services, logistics, industrial, and urban development
- Diversification and expansion of existing activities in the region
- Ensuring long term economic growth by integrating the above activities and attracting foreign investment
- Using this opportunity to adopt best practices in sustainable development
- Job creation and investment
- Increasing volumes of cargo transport and the revenue of Suez Canal
- Higher share of multimodal operations
- Magnify the role of the multimodal transportation
- Developing Sinai region
- Raise the efficiency of the Egyptian labor to the advanced international levels \(^8\)

**The Integrating Roads:**

\(^4\) Sharaf, June 2013, Alahram - Mega Plans for Suez
\(^5\) Sharaf, June 2013, Alahram - Mega Plans for Suez
\(^6\) Qenawy, June 2013, Alahram – Mega Plans for Suez
\(^7\) The Technical Secretariat for the Suez Canal Corridor Development – SCC, May 2013
\(^8\) The Technical Secretariat for the Suez Canal Corridor Development – SCC, May 2013
The final studies set 28 major projects to develop the Suez Canal corridor, 6 of those projects are urgently necessary. Those 6 projects are mainly aiming at facilitating transportations around the development zone:

1- Developing the Cairo-Suez –Ismailia roads into free zone roads to facilitate the transfer between various parts of the Suez Corridor zone and connecting it to Cairo.
2- Constructing Ismailia tunnel to connect the west and east banks of the Canal.
3- Constructing south of Port Said tunnel to connect between the west and east banks of the Canal.
4- Developing Neouiba Port
5- Developing Sharm Al Sheikh air port
6- Extending the Ismailia sweet water channel till the new development zone along the Suez Canal

The Strategy:
Targeting 100 billion dollars revenue after completing the whole stages of the project, in addition of providing 1 million direct jobs, the project aims to develop 3 major regions along the banks of Suez Canal. These regions are:
A- Port Said Region
B- Al Ismailia Region
C- Suez Region

Those 3 already existing regions constitutes the nuclei of the developing zones by maintaining a development plan for logistics and industrial zones surrounding the 3 already existing cities and ports.

1- Port Said Zone (Zone A):
The existing west of Port Said port is considered largest central port in the world due to its location on the Suez Canal and its area which is about 35 km², with 37 quays for various purposes. Adjacent to the port is the largest industrial free zone in Egypt with an
area of 99 Km$^2$ and an agricultural zone of 50000 acres. The existing port consists of 4 major zones divided into:

- The Touristic Zone which has 3 quays for the large touristic vehicles and a submersion of 11m.
- The North Zone which is the general cargo zone which has quays along 580m and a submersion of 6-8 m and the dry cargo quay along 246m with a submersion of 12.7m.
- The South Zone which contains TUE quays along 974m and a submersion of 13.2m and the liquid poring quay along 575 m and a submersion of 3.8m . An RORO quay is also found in this zone along 40 m and a submersion of 8.2m.
- The East Zone which contains housewares for ships\(^{11}\).

The intended development of the Port will be mainly in the existing east zone which is near Port Fouad city. The development will aim to expand the port into a logistic hub that will increase the quays in the target year of 2017 to 8 quays and in 2022 four more quays will be added. In the target year 2030 the port will reach its full capacity with 10 more quays to add up a total sum of 22 quays. The total area of the East port after development is expected to be 1.5 million m$^2$.

Many infrastructures have been added accordingly to aid the development in this upcoming zone. Studies have been made to construct a tunnel beneath Suez Canal to facilitate the movement between the 2 sides of the Canal near the region of the East and West ports near Port Said.

\(^{11}\) The Technical Secretariat for the Suez Canal Corridor Development – SCC, May 2013
In fact part of the earlier stages of the project near Port Said have been constructed like TUE – stages 1 and 2, liquid pouring station 1 and 2. Other stages are expected to end soon as shown in figure 5\(^{12}\).

Ismailia Zone (Zone B):
The second zone targeted by the development plan is the zone adjacent of one of Egypt's important cities which is Ismailia city. The development plan targets mainly an area named “Alqantra Shareq”. This zone belongs to Ismailia governorate and is bounded by Port Said governorate from the North, Suez governorate from the South and Sinai from the east. The area of Qantara Shareq is about 2400 km\(^2\) which represents about 49% of the total area of Ismailia governorate. Qantra Shareq is considered the largest zone in Ismailia while it is the least occupied zone by tenants.
The developing plan of Qantara Shareq aims to develop industry in 2 directions. The first direction is developing technological industry while the second direction is developing miscellaneous industry like medications and petrochemicals\(^{13}\).

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\(^{12}\) The Technical Secretariat for the Suez Canal Corridor Development – SCC, May 2013

\(^{13}\) The Technical Secretariat for the Suez Canal Corridor Development – SCC, May 2013
**Technology Valley:**
The technology valley project will be the cornerstone towards developing this area and attracting tenants from crowded governorates towards the new developing area.

**Targeted Industries in the technology valley:**
The technology valley targets to develop technical industry as follows:
- Software industry
- Electronics industry
- Biomedical industry
- Materials and polymers
- Renewable Energy industry
- Communications industry

The technology valley development plan is divided into 4 major phases:
1. The first phase is on an area of 3021 acres and represents 19% of the total area of the valley
2. The second phase is on an area of 5482 acres and represents 33% of the total area of the valley
3. The third phase is on an area of 3837 acres and represents 23% of the total area of the valley
4. The fourth zone is on an area of 4160 acres and represents 25% of the total area of the valley

Every phase consists of an industrial zone and a housing village for the employees, engineers and workers. Some parts of the first zone have been already sold to companies and factories. \(^{(14)}\)

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Figure 8 – The Phases of development in Technology Valley

The Technical Secretariat for the Suez Canal Corridor Development - SCC

\(^{(14)}\) The Technical Secretariat for the Suez Canal Corridor Development – SCC, May 2013
The Industrial zone in Qantara Shareq:
The industrial zone in Qantara Shareq is located on the road of Shat and Newiba which is 40 km away from Shareq Al Tafreia port. The total area is 910 acres to be developed in 6 phases as well as housing and services phase. The infra-structure for the 1st and 2nd phase are being completed and about 50% of the lands designated for factories are being occupied (15).

The Ismailia Tunnel:
A major project that will help expedite the development of Qantara Shareq zone is the Ismailia Tunnel that will connect the 2 sides of the Suez Canal (16).

The Suez Zone (Zone C):
The third zone is the zone behind Ain ElSokna Port and extends behind the existing touristic zone of Ain ElSokna. The targeted zone consists of 13 phases as well as a couple of heavy industry zones at the southern and western areas. The targeted industry for this zone is:
- Building materials
- Petro chemicals
- Cars
- Fabrics
- Food Industry
- House hold
- Medications
- Packing

The Technical Secretariat for the Suez Canal Corridor Development - SCC
This area has its infrastructure already constructed due to the existence of functioning tourist zone in Ain Al Sokna. Many factories are already there and functioning with full capacity.\(^{(17)}\)

**Ain Al Sokna Port:**
The project aims at extending Ain Al Sokna Port by developing the second harbor basin as well as constructing a liquid bulk terminal and the fifth harbor basin.\(^{(18)}\)

![Figure 11 – Al Ain Al Sokna Harbour](image1)

**Al Adabia Harbor:**
This zone also includes developing Al Adabia harbor which close to Suez harbor. A dry bulk terminal will be added as well as extending the quay to be 600 m. The total area of the harbor is 100 km\(^2\) as well as constructing a TUE station in an area of 400 km\(^2\) with a special quay along 1000 m.

![Figure 12 – Al Adabia Harbour](image2)

**Changing the role of the Suez Canal from facilitating traffic to facilitating trade:**
A proposed new development area: This paper introduces a proposed new development area in addition to the mentioned zones already discussed. The proposed area extends from the Suez Canal region on the

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\(^{(17)}\) The Technical Secretariat for the Suez Canal Corridor Development – SCC, May 2013

\(^{(18)}\) The Technical Secretariat for the Suez Canal Corridor Development – SCC, May 2013
west towards Sinai. This suggested area is between a suggested new road that extends from a new harbor on the Mediterranean in the north to the Suez Gulf in the south. This road forms a route similar to Suez Canal.

The suggested area forms a triangle which can be a kernel to an international industrial free zone.

The suggested road extends from Kesm Romana west of the lake Bardawil to Qantara Shareq in the south. Two harbors should exist at the beginning and at the end of the suggested road. One harbor should be north at Kesm Romana and the other should be south at Qanatra Shareq on Suez Gulf.

Ships carrying raw materials or semi manufactured products from the north or the south can unload on either harbor to enter the logistics and manufacturing area where commodities can be shipped as final or semi products to European, African or Asian markets.

The idea of the suggested road and the near manufacturing area can replace the Suez Canal only for the companies and factories that are willing to build factories at that area. Thus the tolls for passing the canal can be eliminated for the manufacturers and replaced by investments in Egypt which can have higher impact on both sides.

Together with the development zones in East of Port Said and Qantara Shareq, this area can change the role of the Suez Canal from facilitating traffic to facilitating trade.

Summary and Recommendations:
During the past 50 years Suez Canal has faced many changes nationally and internationally. The canal faced some wars in the region. Globalization in the past 25
years forced many changes in world trade as maritime transportation became no longer a separate function but rather a part of a chain of multi modal transportation which itself became a part of a chain of integrated logistic services providers.

These facts in global trade made it necessary for the Egyptian government to reconsider the role of the canal to make it a part of the world trade rather than just facilitating traffic around the world.

The aim of the Egyptian government is to make the development zones a kernel for major industrial zones that contribute in world industry and in world trade.

It is recommended to construct new harbors along the Mediterranean and the Suez Gulf to increase the development area in Sinai rather than having most of the harbors constructed along the Canal only.

Progressing in such project is recommended to expedite the steps in economics reformation that Egyptian government is undertaking now.

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