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New Suez Canal... Egypt's Gift to the World

Dr. Ahmed Abul-Hassan Zard

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Introduction

The process of digging the new Suez Canal is in itself a major national epic, to be added to the great number of the major epics of the Egyptian people. This is manifested in the first drilling operations (1859 –1869), the battles (1956 – 1973), which were raged on the banks of the canal in defense of the Egyptian national territory, the epic of the construction of the High Dam, and other epics of construction and development which continue on the land of Egypt.

On August 5, 2014, when President Abdel-Fattah El-Sisi launched the beginning of the New Suez Canal Project, he was keen on allocating only one year for the completion of the project. He said: “It is a race against time and we want to build our country”. Today, he proves to the world that he is true to his word and that the Egyptian dream came true, when Egypt massed all its national forces to engage in the greatest and noblest battle, i.e. digging a new canal, to declare to the whole world that despite the troubles and difficulties, Egypt always manages.

The sixth of August 2015 will remain a major turning point in the modern history of Egypt, as it is, really, a symbol of the victory of the Egyptian will and its ability to defy all the crises and difficulties it faced during a crucial and critical stage.

This victory is expressed by the facts and figures that state that the drilling process resulted 250 million cubic meters and that the dredging process resulted 260 million cubic meters of sand saturated water, which is considered an unprecedented historic achievement.

It is important to highlight the society's participation – or citizenship at its best forms – which appeared the moment President Abdel Fattah Al-Sisi exploded the embankment (August 5, 2014), with the attendance of a big number audience, declaring the start of digging in the new canal.

Such participation reached the climax, during the underwriting process, for the purchase of the Suez Canal investment certificates. This is not new to the Egyptian society, as the contemporary history shows the depth and the penetration of the idea of participation in the Egyptian national fabric, which clearly appeared during the construction of the High Dam, the nationalization of the Suez Canal, and the revolutions of January 25,2011 and June 30, 2013.

However, professor of geography Dr. Gamal Hamdan confirmed, in his book "*The Suez Canal ...The Pulse of Egypt*" (1975), that the canal, to a great extent, is considered the history of modern Egypt, it could be argued that the new Suez Canal is the most accurate expression of the reality of the situation in contemporary Egypt, which managed to change the hard times into great expectations.

If the inauguration day of the new canal crowns a year of firm determination to achieve broad goals, yet, in fact, it is considered a beginning of a new phase of the national action based on the investment of this vital artery to push the comprehensive development with its economic and social dimensions.

**Chairman of State Information Service
Ambassador/ Salah Abdel-Sadeq**

Chapter One

Suez Canal... Historical Development

The historians agreed that pharaoh Senusret III was the first one who thought to dig a canal connecting the Red Sea and the Mediterranean.

However, the actual history of Suez Canal started from the first concession decree and the subsequent decrees until reaching the drilling process which began on April 25, 1859 when the first digging in Suez Canal started in "Farma" city, currently Port Said, with the participation of about 20,000 Egyptian workers who performed their duty in extremely harsh humanitarian conditions.

Since its inauguration on November 17, 1869, the canal experienced historical stages and witnessed major developments and events, salient of which are: the nationalization decree which restored the rights to their respective owners. As well, the Canal was closed in the wake of 1967 War, and reopened in June 1975. The most important of these developments are:

1- The Emergence of Suez Canal idea

It is known that the first person who thought to link the Red Sea and the Mediterranean indirectly through the Nile and its branches was the pharaoh Senusret III of the 12th Dynasty in order to consolidate trade and facilitate transportation between East and West. The ships that come from Mediterranean, sail in the Nile to Zagazig then to Red Sea through Bitter lakes that was attached to it that time. The remnants of such canal still exist until today in "Jennivh" near Suez.⁽¹⁾

Re-digging of the Canal (610 BC):

In 610 BC, the Canal was filled with dust and there was a barrier isolating the Bitter lakes from the Red Sea due to lack of maintenance for a long period. So, pharaoh Necho II, known as Nicos, exerted much effort to re-dig the canal. He succeeded to link the Nile with Bitter lakes but he failed to connect it with the Red Sea.

In 510 BC, Darius I, king of Persia paid attention to the canal, so, he linked the Nile with Bitter lakes but he also failed like his predecessor to connect the

⁽¹⁾ Georg Halim Kirlus, Suez Canal and universal maritime Canal (Cairo: Dar Al-Fakr Alarabi, 1964) P.64...

lake with the Red Sea except only through small canals that were not suitable for navigation except in the Nile flood season only.

In 285 BC, Ptolemy II overcame all the previous obstacles. He succeeded to restore the navigation in the Canal after digging the part between Bitter lakes and the Red Sea to replace the small canals.

The Romans decided to re-use the Canal for their trade. So, the Roman Emperor Trajan dug a new canal in 98 AD, starting from Cairo at "Gulf Mouth" and ending in Abasia where it connects with the old branch at Zagazig.

During the reign of the Byzantines (400AD), the canal was neglected once more where the dust accumulated until it became unfit for navigation at all.

In 641 AD, Amr Ibn al-Aas restored the navigation in the canal and named it "Amir Al-Moamenein" Canal. He thought to dig a canal linking directly between the Red Sea and the Mediterranean but the Caliph Omar Ibn-al-Khattab didn't agree because he believed that the digging of such canal will expose Egypt to the flood of the Red Sea water.

In 760 AD, the Abbasid Caliph, Abu Jafar al-Mansur is said to have ordered Closure of this canal to prevent supplies from reaching the people of Mecca and Madina who revolted against his rule.

So, the navigation was disrupted between the two seas for nearly 11 centuries during which the land roads were used for transporting Egypt's trade. In 1820, Muhammad Ali ordered to reform a part of the canal to irrigate the area between Abasia and Al-Qasasien⁽²⁾

2-Suez Canal from the Concession Decree in 1854 to the Opening Ceremony in 1869

The real history of the Suez Canal started from the first concession decree and the subsequent decrees until the end of the excavation work on 18 August 1869 which crowned with the opening ceremony on November 17, 1869.

First Concession Decree.⁽³⁾

The first concession decree which granted Ferdinand De Lesseps the right to set up a company to construct the Suez Canal, was issued on November 30,1854. The decree stipulates in its 1st article that De Lesseps shall establish a

² Ibid, P.68

³ Review the text of the first concession decree of this book.

company and supervise it. In the 2nd article the company director to be appointed by the Egyptian government, in the 3rd article the company shall operate the canal for 99 years starting from the date of opening, and in the 5th article the Egyptian government will get 15% of the company's net profit. This decree also provided that transit fees in the canal shall be agreed upon by the Khedive and the company and that all countries are dealt on equal footing without discrimination or privilege and at the end of the company's concession, the Egyptian government will replace the company and capture the canal and all its installations.

Second Concession Decree

The second concession decree was issued on January 5, 1856, including 23 articles describing the contents of the provisions of the first concession.

However, it is noted that articles 14 and 15 of the second concession decree emphasizes clearly the neutrality of the canal.

Article 14 stipulates that: "Major maritime Canal from Suez to Tina and its affiliated ports are always open as a neutral passage for any commercial ship".

Establishing of the Universal Company of Ambition Suez Canal⁽⁴⁾

The Universal Company of Maritime Suez Canal was founded on December 15, 1858 with a capital of 200 million Francs (8 million pounds), divided into 400,000 shares, each worth 500 francs. The company allocated to each state a certain number of them. Egypt's share was 92136 shares and the shares of England, USA, Austria and Russia were 85506, but these countries rejected to participate in the subscription. So, Egypt was forced to borrow 28 million francs (L.E 1120000) at a high interest rate in order to buy their shares out of its desire to consolidate the project. So, Egypt owned 177642 shares worth nearly 89 million francs (L.E 3560000) nearly half of the company's capital. Beginning of the digging of the Suez Canal:

On April 25, 1859, the digging in Suez canal began despite the objections of England and the sublime Port. Mediterranean Sea water flowed in Timsah Lake on November 18, 1862. At that time, the lake was a depression surrounded with sand dunes and is located midway between Port Said and Suez.

On August 18, 1869, the Red Sea and the Mediterranean Sea water met, creating this the vital artery for global navigation. Thus, the works in this huge project which

⁽⁴⁾ George Kirlus, previous reference P.69

took ten years, ended after the extraction of 74 million cubic meters of dusts. The project costs amounted to 433 million Franc (L.E 17320000), twofold of the previously set cost.

The Canal Fabulous Inauguration Ceremony (November 17, 1869)

The water of Red Sea and the Mediterranean Sea met together on August 18, 1869 to form Suez Canal "The artery life for Egypt and the world" which the professor of geography late Dr. Gamal Hamdan described as "the pulse of Egypt"

The Canal was opened in a fabulous Ceremony on November 17, 1869 in the presence of 6000 guests on top of them Empress Eugenie, the spouse of France Emperor, Napoleon III, Emperor of Austria, king of Hungary, Crown prince of Russia, the brother of the king of the Netherlands, the ambassador of Great Britain in Asitana, prince Abdul Qadir of Algeria, crown prince Tewfiq of Egypt, the most famous Norwegian writer Henrik Ibsen, Prince Toson; son of late Khedive Said Pasha and Nubar Pasha and others.

Imperial yacht "l'Aigle" transited the canal on November 17, 1869 with the senior guests on board followed by 77 ones including 50 warships. On this occasion great celebrations and festivals were held. Khedive Ismail spent about a million and a half pounds for this purpose.

Properties of the Canal When it was Opened in 1869

Length :162.3 km

Depth : 7.50 m

Width in bottom :22 m

Width at the surface of the water level: 52 m

Draft allowed for passing ships: 6,78 m (22.25 feet)

3- After the Opening until Constantinople Convention

On February 15, 1875, the British Prime Minister Disraeli purchased 176602 shares from Khedive Ismail at 3,976,580 Sterling Pounds. These shares represented 44% of the total stocks. They entitled Egypt to obtain 31% of the total profits of the company.

On April 17, 1880, the government waived 15% of the profit of the company for 22 million francs to the French Real Estate Bank. So, the company has become under the financial control of France and England, the first has 56% of the shares and the second has 44%.

From May to September 1882, England occupied Egypt in the wake of the Arab Revolution. The British army seized the company's facilities and stopped passage in the Canal temporarily.

A statement by Lord Grandfield on January 3, 1883 issued to the major countries declaring that the British government was willing to withdraw its army from Egypt at the nearest opportunity, when the conditions of the country allow. He proposed to organize the Suez Canal position by an agreement concluded between the major powers.

Then, on March 30, 1885, an international committee met in Paris to draw a document to ensure the freedom of navigation in the canal at all times and for all countries. But, they didn't agree to such document.

The Constantinople Convention (October 29, 1888)

An agreement was concluded between France, Austria, Hungary, Spain, England, Italy, the Netherlands, Russia and Turkey to draw a final system to ensure freedom of navigation in the Suez Canal⁽⁵⁾

Related to the issue of Egypt's respect to the Convention of Constantinople, Egypt sent a letter on July 17, 1957 to the International Court of justice, informing it that Egypt had accepted the compulsory jurisdiction of the Court in accordance with the provisions of Article 36 of the Basic law of the Court for all disputes related to the passage in Suez Canal.

4- Nationalization of the Canal Return of the Right to its Holders:

President Gamal Abdel Nasser declared in his historic speech in Alexandria on July 6, 1956, the nationalization decree of Suez Canal.

Article (1) of the decree stipulates that the nationalization of the Universal Company of maritime Suez Canal (Egyptian Joint stock company).

All money, rights and obligations of the company are transferred to the State. All organizations and committees now operating the company are dissolved.

Shareholders and holders of constituent shares shall be compensated in accordance with the value of the shares on the Paris Stock Market on the day preceding the enforcement of this law.

⁵ The full text of the convention within supplements of this book.

Payment of compensation shall take place immediately the state receives all the assets and property of the nationalized company.

Indeed the Egyptian state has fulfilled all its duties on 1st January 1963, the compensation was paid. The compensation reached L.E 28300000 the value of 800000 shares which totally paid in foreign currency and before one year of maturity⁽⁶⁾

However, the nationalization decree came as a direct response to the major countries and World Bank's situations concerning financing the High Dam ⁽⁷⁾, but the decree in fact revealed the Egyptian rights and it was closely related to the Egyptian sovereignty over the entire national territory after the July 23 Revolution.

Egypt had refuted all the sources that questioning the nationalization decree. This was in the famous speech that Dr. Mahmoud Fawzi, Egypt's Foreign Minister delivered before the General Assembly of the United Nations on October 8, 1956. He said that "Every independent state has the right to nationalize anybody subject to its sovereignty the General Assembly confirmed in its resolution no 12626 on December 23, 1952 that each state has the right to use its resources for the welfare of its people by virtue of its the sovereignty and the principles of the UN charter. So, Egypt's action of nationalization of the Suez Canal company is just an enforcement of this resolution.

He added that the canal authority is an Egyptian authority that was given its privileges of construction by the Egyptian government for 99 years.

Article no. 16 of the agreement between the Egyptian government and the canal authority signed on February 22nd, 1866, provided that the International Navigation Authority of Suez Canal is an Egyptian joint stock company subject to the laws of the country. The British government acknowledges this fact and defended it before the

⁽⁶⁾ George Halim Kirlus, previous reference. P 105

⁽⁷⁾ USA emphasized in a statement issued on 19 July, 1956 that its contribution in the construction of the High Dam is not practical matter not only through arguments and poor excuses, but also doubted Egypt's capabilities to accomplish this project. US Secretary of State at that time, John Foster Dulles on 20 July, 1956 in response to the Ambassador of Egypt when he said that US government is no longer willing to contribute to finance the High Dam due to the weakness of Egypt's economy that can not afford such a project Review the details in :

-Fathi Risk, Suez Canal: Location and Date (Cairo Dar Al-Nasr of the Islamic print, 1983) p.138

mixed court on April 12, 1939.

He also declared that Egypt adhered to its right of sovereignty over its land and its respect for the 1888 agreement and its readiness for negotiation in order to reach a solution for the canal problem in a peaceful means.⁸

After the resolution of nationalization of the canal, Egypt was exposed to a colonial force attack and started to stifle the Egyptian economy by the withdrawal of the foreign guides and technicians working at the canal in order to hinder the work so as to embarrass the Egyptian government as the Egyptians would not be able to manage the canal.⁹

But the Egyptian's spirit of challenge helped to undergo the crisis. The Egyptian pilots with the aid of pilots from some of the friendly countries were able to conduct navigation after two days from the withdrawal of the foreign pilots. On September 16, 36 ships transited the canal, on September 17, 35 ships transited, on September 18, 32 ships transited and on September 19, 34 ships transited.¹⁰ On September 18, 1956, the SIS arranged a visit for 50 foreign correspondents to Ismailia to visit the Canal Zone to see by themselves the accuracy of navigation. On September 19, 1956, the main headlines of Al-Ahram newspaper referred to the foreign correspondents who were impressed by the navigation in the canal, while the convoys of ships crossed peacefully.¹¹

⁸ For more details review:

-Mohamed Youness, "Suez canal": Past, Present and Future from page 275 (Cairo: Abu Al Magd publishing house, 2006)

⁹ In September 14, the foreign guides withdrew. Review George Halim Kerles previous reference from page 92

¹⁰ Mohamed Youness, Previous reference from page 254

¹¹ The same reference page 255

pilots. It seemed that Nasser fulfilled what he was always proud of, as 2432 ships crossed the canal peacefully and secure, of which 301 ships crossed after the collective withdrawal of the foreign pilots.¹² Many events followed and ended by the Tripartite Aggression on Egypt which lasted from October 31st to December 22nd 1956, causing the closing of the canal. However, at that time and in particular on December 23rd 1956, Egypt achieved victory in the glorious Suez War, as called by the historians, by which Egypt ended the age of colonization and started the age of liberation lighting the way to the wave of independence that stroke the Third World.¹³

5 –Projects of the Canal after the Tripartite Aggression:

On March 29, 1957, after the canal was reopened, the canal company began the 1st phase of “Nasser project” in order to increase the waterway from 1250m² to 1800m², and to increase the ship draft from 35 feet to 37 feet. In 1958 the fleet of dredges reached the canal.

- **A- The Execution of the 1st phase of “Nasser project”:**

In 1961, the development process was going fast and the 1st phase ended on April 30th 1961, while the second phase ended on September 1st 1961. In December 1961, the cornerstone was laid down for the arsenal of the Suez Canal Authority.

The Giant Carriers Transit: Many of the foreign newspapers and magazines wrote about the success of Egyptian administration in arranging the navigation in the canal, among which was the American magazine “Times”, that published on October 1 1956, an article entitled “Under the New Administration” which was written after 8 weeks of the nationalization of the canal and after one week of the withdrawal of 2/3 of the **Giant Carriers**. On March 13th 1962, the biggest tanker in the world, “Manhattan” transited the canal. It is an American tanker with a maximum load of 106500 Tons a length of 286.7 m, a width of 40.2m, and a maximum draft of 15.05m while its height is equal to that of a 10-floor building.

¹² The previous reference page 259

¹³ Dr. Gamal Himdan “Suez Canal, the pulse of Egypt “(Cairo, Alam El Kotob Publicatin House, 1975) page26-27

Since the nationalization of the canal the following giant tankers had transited the canal:

- On May 8, 1966 the English tanker “British Admiral” transited with a maximum load of 111274 Tons.
- On July 17 1966, the English tanker “British Argosy” transited with a maximum load of 112786 Tons.
- On July 27, 1966, the Swedish Tanker “Sea Spirit” transited with a maximum load of 119400 tons.
- On November 6th 1966, the Swedish tanker “Sea Spray” transited with a maximum load of 116250 tons.

The Giant Ships Transit:

On October 8th, 1962, the canal authority celebrated the transit of the “100 thousand” vessel since its nationalization on July 26th, 1956. This vessel was a Norwegian tanker “« Borg Hess »” which was constructed in the Stanford harbor in Norway in 1955 with a length of 194m, a width of 26m, a depth of 14 m and a total load of about 20990 tons. On April 14, 1964 the new dredge “Khoufou” joined the dredges arsenal, and it was constructed for the Suez Canal authority in Scotland. This dredge seemed like the ‘July 25’, ‘September 15’ and ‘Thoutmosis’ dredges ,but it is bigger and has a greater power since the power of its machines reached to 8500 horse , and thus it could crumble rocks till 21m depth, absorb and throw them to 35km far, at a cost of LE 1.5 million.

-The Ship “Birghaven” Transit:

On October 22, 1966, The Norwegian tanker “Berghaven” transited the canal with a load of 153511 tons, a length of 278.9m and width of 44.2m. It is the biggest ship that had crossed since the canal establishment.

6- The Re opening of the Suez Canal (June 1975)

The navigation in the canal stopped after the Israeli attack on June 5, 1967 till

president Sadat announced re opening the canal on his historical speech before the People's Assembly (March 29,1975), in which he said : "I do not want the peoples of the world to imagine that the Egyptian people want to punish them for a fault that they didn't commit", but they all supported us and we want our canal as they want it a way for prosperity and we are able to protect it as we could protect the canal cities that we constructed. The age of the colonialist has gone."

on June 5, 1975 the canal was re opened for navigation and Sadat said in his speech that "I announce for the son of this land who excavated the canal with his tears and sweat to be the connection between continents and civilizations , the reopening of the canal it for navigation as a branch for peace and an artery for prosperity and cooperation among human beings."

President Sadat boarded the destroyer 'October 6' to go on the first trip through the Suez Canal in a convoy headed with two minesweepers followed by the destroyer 'October 6', the yacht 'Freedom', and the leadership vessel in the 6th fleet 'Little Rock', besides the 2 Egyptian ships 'Syria' and 'Aida', in addition to two military launches, and the locomotive 'Mared'. While at the rear of the convoy, there were 3 military ships and the Qatari ship 'Ghazal'. When the convoy arrived to Ismailia, President Sadat removed the curtain from the memorial plaque at the city entrance.¹⁴

On October 31st, 1976, the Liberian giant tanker Asocandria transited the Suez Canal with a maximum load of 254 thousand tons, a length of 348.5 m, a width of 51.90 m and a draft of 65.60 feet. It transited the canal while it was empty with a draft of 28 feet and it is considered the biggest vessel that had crossed the canal since its excavation in 1869.

On February 1979 'Al-Temsah' bypass was excavated from the km76.6 to the

¹⁴ Egypt's contemporary memory Link:

<http://modernegypt.bibalex.org/Types/Events/Details.aspx?ID=LorJVYE5Dcfu5b%2f1HkmsHg%3d%3d>

km81.7, with the length of 5.1 km. It was inaugurated in 1980 to achieve the duality of the waterway at the km68 from a total length of 179 km, extending from Port-Saïd to Port Tawfiq in Suez. On March 19, 1980, Egypt celebrated the connection of Port-Saïd bypass with the Mediterranean, starting from km17 to meet the old waterway of the canal in Port-Saïd at k95, and extending to km195 till to reach a total length of 36.5km. This caused the outgoing and incoming of the vessels to the canal without hindering the movement in Port-Saïd harbor

7-Expanding and deepening the waterway: ¹⁵

When the canal was opened for navigation on November 17 1969, it was 164Km long, 52m wide at the water level and 75m deep. The draft of the ship permitted to cross was not more than 22.5 feet and the navigation was permitted only during the day for 18 years until the canal authority permitted navigation at night on March 1st 1887. During the period between opening the Suez canal and its nationalization in 1956, the authority implemented many programs to develop and improve the Suez canal, which resulted in increasing the depth of the canal to 13.5m and its width from 22m to 42m, and also it increased the water sector from 304m² to 1250m², and the permitted draft from 2.4 feet to 35 feet. The total costs of this improvement reached LE 20 million and 500 thousand.

16- According to the development of ship building industry, and building bigger ships in its loads, the need for developing the Suez canal emerged, and this was with the support of the world authority of the Suez canal till the draft of the ships reached 35 feet and the area of the water sector reached 1200m², before the nationalization of the Suez canal on July 20 1956.

¹⁵ For more details refer to: The official site of the Suez Canal (<http://www.suezcanal.gov.eg/Default.aspx>), and Mahmoud Youness, *ibid* from page 384

The development of the canal continued till May 1952, where the draft of the ship increased to 38 feet, and the area of the water sector to 1800m. The canal administration in June 1966 declared an ambitious plan to develop the canal in two phases to reach so as to the draft of the ship reaches from 48 to 58 feet respectively.

As a result of the war of June 1967 the development stopped, and the canal was reopened for world navigation in June 1975 after cleaning the canal from the remnants of the war and picking up the sinking ships between the 1967 and 1973 wars, the Suez canal remained with its same depth and water sector that was before its closure.

The Egyptian administration of the canal continued the development of the canal till the load of the ship permitted reached 210 thousand tons, and the draft of the ship reached 191.80km in 2001.

Also, in this project the curved paths in the canal were redesigned and the radius of every path reached 5000 m at least, also a new bypass was excavated that started from km17 south of Port Said at the north till the Mediterranean east of the city of Port Fouad.

Thus the ships that are going north can reach the sea without going in the harbor of Port Said. The draft of the ship permitted to transit the canal reached 6 feet in 2010, to have all the containerships, till a load of 17000 containers besides the transit of all the ships from all over the world.

The Bypasses of the Canal:

The bypasses of the canal reach 80.5km long and they are:

- Port said bypass with a length of 40.1km, excavated in 1980
- Al Ballah bypass with a length of 4.3km, excavated in 1980
- Al Defreresour bypass with a length of 8.4km, excavated in 1480.

- Al Bohirat bypass with 11.8km, excavated in 1955
- KabreetBypass with a length of 7.0km, excavated in 1955.

Chapter Two

The Development of the Navigational Traffic in the Canal (1869- 2014)

The records of the canal reveal that the number of ships that passed in the first year of its inauguration in 1869 reached 140. In 1879, after 10 years, the number jumped to 1477 and was doubled to 3425 in 1889. This rate continued with a little increase until 1910 where the number of the ships passed through the canal rose to 4533. Then, in 1912 the number jumped to 5373 ships but the rates decreased in 1914, 1915, 1916 and 1917 because of the World War I where in 1917, the number of ships reached about 2353 only¹⁶.

In the years that preceded the World War II, the passing ships through the canal reached their highest rates amounting to 6171 in 1937. However, it decreased in the following years to the third where it reached 1642 in 1942. The navigational traffic was swinging until 1948 where it increased to 8686 ships. Moreover, the year 1949 witnessed a noticeable increase where the number of passing ships reached 10420 then jumped to 14666 in 1955, a year before the nationalization, and decreased to 13291 only in 1956 because of the closure of the canal during the Tripartite Aggression on Egypt.

The year 1957 witnessed the beginning of the permanent increase in the navigational traffic in the canal although that the canal started work on April 10, 1957 after clearing it from the aggression. The numbers refer that 10980 ships and vessels passed through the canal and the number jumped to 17842 in 1958. The navigational traffic continued increasing until it reached 21250 in 1966, the year before the Israeli aggression where the traffic stopped in the canal on June 5, 1967.

The navigation resumed in the canal on June 5, 1975 where the number of ships and vessels that passed in 6 months and 25 days reached 5579 and increased to 16806 in 1976. Then, it jumped to 19703 in 1977 and 21900 in 1981 according to December estimation in 1981 and to 22000 in 1982.

The Navigational Traffic Development during 2014¹⁷

¹⁶Fathi Rizk, previous resource pp. 327-328

¹⁷ The SCA official website

In 2014, a number of 17148 ships passed through the canal from the two sides, a complete passage, compared to 16596 in 2013 with an increase that amounted up to 552 ships, at a rate of 3.3%. The daily average of the ships that passed in 2014 reached 47.0 compared to 45.5 in 2013.

The Net Tonnage:

The total net tonnage that passed through the canal reached 962.7 million tons in 2014 compared to 915.5 million tons in 2013 with an increase that amounted up to 47.2 million tons at a rate of 5.2%.

This increase resulted from the increase in the oil tankers net tonnage (18.1 million tons at a rate of 12.5%), bulk carriers (6.6 million tons at a rate of 6.5%), common vessels (0.5 million tons), containers (28.1 million tons at a rate of 5.5%), tractor carriers (0.3 million tons at a rate of 4.8%).

While the net tonnage decreased in the natural gas ships (3.4 million tons at a rate of 4.9%), public cargo ships (0.3 million tons at a rate of 1.9%), car carriers (1.9 million tons at a rate of 3.1%), passengers ships (0.6 million tons at a rate of 18.2%) and other ships (0.05 million tons at a rate of 1.1%).

Ships' Flags:

In 2014, the ships passed through the canal raised 103 flags of different countries compared to 99 countries that passed during 2013. Panama, Liberia, and Marshal Islands are at the top of these countries.

Cargo Traffic:

In 2014, the cargo traffic that passed through the canal achieved an increase that amounted up to 67.9 million tons at a rate of 9.0% where the cargo directed to the south increased by 28.1 million tons at a rate of 7.3%. Moreover, the cargoes directed to the north increased by 39.7 million tons, at a rate of 10.8%.

The most important areas in the north of the canal in cargo traffic are north and west of Europe areas as they represent (27.5%) of the total goods passed through the canal as well as east and southeast of the Mediterranean as they represent (20.1%). At the south of the canal, the southeast of Asia areas represent (33.9%) and the Arab Gulf areas represent (26.9%).

Moreover, the quantity of the oil materials passing through the canal increased in the southern direction to be amounted up to 12.1 million tons at a rate of 18.9% and increased in the northern direction to 13.3 million tons at a rate of 14.9%.

The Performance Indicators Development:

In 2012-2013, the Suez Canal income witnessed an increase from \$ 5 billion to \$ 5.310 billion equivalent to L.E 37 billion with an increase amounted up to 5.5% in \$ revenues and 14.1% in L.E during 2013- 2014¹⁸.

On December 12, 2014, the canal achieved a record in the ships numbers and tonnage that passed, where 71 ships passed from the two sides, carrying 4.6 million tons¹⁹

The Suez Canal Container Terminal "SCCT" announced on July 12, 2015 that it received the "MSC Istanbul " ship affiliated to the AM4 service which is the largest container carrier received at the station, as the capacity of the ship reached 16.652 equivalent containers while its special draft reached 15.5 m and its length is 399 m.²⁰

Changing the Logo of the Suez Canal Authority (SCA):

It is worth mentioning that on May 30, 2015, the logo of the SCA has been changed after it was two letters (SC), it became a logo that shows two ships in opposite directions with the letters (SC) on them to show the new canal, the ships route in two different directions, and the elimination of waiting time for the ships, that leads to great economic revenue to the state.

Evolution of Suez Canal activities during the period (2000/2001-2012/13)

Payload		number of passing ships		Revenues		year
Growt h rate %	Millio n tons	Growt h rate %	Thousa nd ship	Growt h rate %	Billion dollar	
--	462,3	--	14,4	--	1,9	2000

¹⁸Lieutenant General Mohab Memesh's statement, Head of the SCA, Al-Ahram on July 3, 2014

¹⁹Chairman of the SCA on December 13, 2014

²⁰The websites of Newspapers: Al Watan, Al Youm Al Sabee, Al-Ahram Gate (July 12, 2015)

4,9-	439,6	6,9-	13,4	1,6	1,87	2001/0 2
13,7	499,9	9	14,6	23	2,3	2002/0 3
15,7	578,5	11	16,2	21,7	2,8	2003/0 4
11,8	646,5	6,8	17,3	17,9	3,3	2004/0 5
8,6	702,3	6,9	18,5	9,1	3,6	2005/0 6
12,8	792,4	5,4	19,4	16,7	4,2	2006/0 7
12,4	890,9	8,2	21,1	21,4	5,1	2007/0 8
8,9-	811,4	8,1-	19,4	7,8-	4,7	2008/0 9
2,9-	787,5	9,8-	17,5	4,3-	4,5	2009/1 0
13,9	696,9	3,3	18,1	11,3	5,1	2010/1 1
4,7	938,6	2,1-	17,7	2,0	5,2	2011/1 2
2,8-	911,9	5,6-	16,6	3,4-	5	2012/1 3

Ships passing through Suez Canal (1964-1869)²¹

Dailyaverage	Number	Year
3,3	140	1869
1,3	486	1870
4,1	1494	1875
5,5	2026	1880
9,9	2624	1885
9,3	3389	1890
9,4	3434	1895
9,4	3441	1900
11,3	4116	1905
12,4	4533	1910
10,2	3708	1915
11,0	4009	1920
14,6	5337	1925
15,8	5761	1930
16,4	5992	1935
7,1	2589	1940
11,5	4206	1945
32,2	11701	1950
32,0	11694	1951
33,2	12168	1952
34,9	12731	1953
36,2	13215	1954
40,2	14666	1955
43,6	13291	1956
⁽²²⁾ 39,4	10958	1957
48,9	17842	1958
48,6	17731	1959
51,2	18734	1960

²¹ Geroge Halim Cyril, *ibid*, p.22

²² The daily average increased to 64.6 ships after the regularity of navigation in the canal from July 1957

49,7	18148	1961
50,7	18518	1962
52,5	19146	1963
54,6	19943	1964
55,5	20279	1965
58,2	21250	1966

Evolution of numbers and cargo of ships (1975-2014)

Payload (100 tons)		Number of ships		Year
Daily average	Total	Daily average	Total	
240,2	50441	26,6	5579	(*)1975
513,0	187757	45,9	16806	1976
604,0	220477	54,0	197,3	1977
680,2	248260	58,3	21266	1978
729,2	266171	55,8	20363	1979
768,6	281305	56,8	20795	1980
938,0	342356	59,1	21577	1981
996,0	363538	61,8	22545	1982
1036,2	378226	60,9	22242	1983
1013,8	371039	58,4	21361	1984
966,0	353579	54,2	19791	1985
1002,9	366076	50,4	18403	1986
950,8	347038	48,1	17541	1987
975,2	356913	49,7	18190	1988
1023,1	373429	48,3	17628	1989
1124,2	410322	48,4	17664	1990

(*) days of actual navigation 210

1168,4	426449	50,2	18326	1991
1010,3	369779	45,4	16629	1992
1086,4	396550	47,4	17318	1993
998,6	364487	44,8	16370	1994
987,3	360372	41,2	15051	1995
969,9	354974	40,2	14731	1996
1010,2	368720	39,5	14430	1997
1057,7	386069	36,9	13472	1998
1054,8	384994	37,0	13490	1999
1199,6	439041	38,6	14142	2000
1249,6	456113	38,3	13986	2001
1218,6	444786	36,8	13447	2002
1505,2	549381	42,9	15667	2003
1697,4	621253	46,0	16850	2004
1841,0	671951	49,4	18224	2005
2034,8	742708	51,1	18664	2006
2323,7	848162	55,8	20383	2007
2486,5	910059	58,5	21415	2008
2012,2	734453	47,2	17228	2009
2318,9	846389	49,3	17993	2010
2544,9	928880	48,8	17799	2011
2543,8	928372	47,2	17224	2012
2508,1	915468	45,5	16596	2013
2637,7	962748	47,0	17148	2014

Disruption of Navigation in the Canal (25)

The canal's records assured that navigation in the canal was disrupted for the first time because of the British occupation against Egypt and for two days only in 1882. The second time was on July 10, 1885 when the dredger 16, affiliated to the canal's authority, hit the (Comos Millville) ship and sank, and it was lifted afterwards. This resulted in disrupting the navigation for 11 days ⁽²⁶⁾. The navigation was also

disrupted on September 5, 1905 for 10 days because fire erupted in "Shanam" ship that hit "Clan King" ship.

The navigation stopped in the canal on February 3, 1915 during the World War I, and was also disrupted for 76 days, discontinuously, as a number of ships sank in it or for lifting mines during the World War II.

On December 31, 1955, the navigation stopped for 4 days as "World Peace" ship hits Ferdan Bridge. The navigation stopped totally in the Suez Canal as a result of the Tripartite Aggression from November 1, 1956 to March 28, 1957 where the waterway was greatly damaged and 48 ships and maritime pieces from the SCA service units have been sunk. Moreover, Ferdan Bridge that connects the western bank by the eastern one and the iron line on the bridge were harmed in addition to 15 small units from the SCA equipments.

And navigation was disrupted for several hours on April 18, 2015 due to the "Mersek Line" container's running aground at the Km 94 at Defersoir, causing stop of navigation and disruption of the movement of 21 ships.

(25) Revise in this:

- George Kerolos, previous resource, p. 122

- Fathi Rezk, previous resource, p.214-222

(26)Fathi Rezk, previous resource, p. 215

Chapter Three

New Suez CanalDream realized

In contemporary period (1956 - 1973), the "Suez Canal" and what surrounded it were scene of national liberation battles and the defense of Egypt's national security .From its banks, Egypt fought over the past year (August 5, 2014 - August 5, 2015) with all its national forces the most noble battles, battle of development and construction in order to secure a decent life for all Egyptians.

The New Canal Excavation Document ... Sincere Expression of the Egyptian National Conscience

It was the first spark for President Abdel-Fattah Al-Sisi to launch the new canal excavation document on August 5, 2014, that stipulates that:

"In the name of God the Merciful, and on behalf of the people of Egypt, and a continuation of our ancestors path and relying on God, we Abdel Fattah Al-Sisi, President of the Republic give instructions to begin excavating the New Suez Canal, to be a lifeline for the good of Egypt and the whole world and God save Egypt and its great people and Long live Egypt, long live Egypt".

It is important to stop at this document, it reflects – honestly- the Egyptian national conscience in referring first to the continuation of the march of our ancestors who excavate the Suez Canal in extremely hard conditions, and referring secondly to the importance of the canal to all mankind as a vital artery that brings good for Egypt and the world.

The New Suez Canal... Generations Project:

The new canal extends from the Km 60 to the Km 95 (canal numbering) in addition to widening and deepening the Great Bitter Lakes and Ballah by-passes at a total length of 37 Km (the project's total length is 72 km) ⁽²⁷⁾.

The project's idea is based on establishing a new canal parallel to the existing one and maximizing the benefit of the present canal and its by-passes to achieve the

greatest percentage of doubling for moving the ships in the two directions without stopping in the waiting areas inside the canal , reduce the time of the passage the transit ships, increase the accommodative capacity for the passage of ships, raise the degree of confidence in the canal as the best global waterway, and raise the degree of confidence in Egypt's arrangements for the success of the development project in the Suez Canal. All the above will be reflected to increase the national income, provide great number of job opportunities for Egyptian youth and create new urban communities.

Project Objectives:

It can be said that the new canal will achieve a package of objectives, salient of which are:

- Increasing the Egyptian national income of foreign currency.
- Achieving the greatest percentage of doubling in the Suez Canal up to 50% of the waterway length.
- Reducing the passage time from 18 to 11 hours for the north convoy.
- Reducing the waiting time for ships to be 3 hours in the worst conditions instead of (8 to 11 hours), which are reflected on reducing the cost of the trip for the ship owners and raising the degree of valuing the Suez Canal.
- Contributing in increasing the demand for using the canal as a major global waterway and raising the degree of its classification.
- Increasing the accommodative capacity for passing ships in the canal to meet the expected growth volume of world trade in the future.
- An important step for the success of the development project of the Suez Canal and for boosting the Egyptian national economy to turn Egypt into a commercial and logistical global rank.

Return and Outcome of the Project:

-Increasing the accommodative capacity of the canal to be 97 ships in 2023 instead of 49 ships in 2014.

- Achieving direct non-stop passing for 45 ships in both directions with the possibility of allowing passing ships up to 66 draft ft in all parts of the canal.

- Increasing the Suez Canal returns rating at 259% in 2023 to be \$13.226 billion, compared to \$ 5.3 billion which is the current return.

- Increasing job opportunities for the sons of the Suez Canal cities, Sinai and the neighboring governorates with the creation of new urban communities.

- Maximizing the competitive capacity of the canal and distinguishing it from similar canals as a result of the increase of maritime safety rates during the passage of ships.

An Integrated Strategic Vision for the Implementation of the Future Project:

President Abdel Fattah Al-Sisi in his speech on August 5, 2014 offered an integrated strategic vision for the implementation of this mega project; its features are manifested in:

1. Setting a time schedule for the completion of the project

2. Taking into account national security considerations

3. Activating the principle of community partnership in the launch process and in the People's subscription

First: Setting a time schedule for the completion of the project

The political leadership was keen to set a period of time (one year) for the completion of the project, after it was scheduled to take three years of work. This means that there is awareness of the value of time. President Sisi's words had clear

indication where he said: ".....We are racing against time ... We want to build our country and we will not sell illusion to the people... ".

Second: Taking into account national security considerations

It was clear from the beginning that the concept of national security is deeply-rooted in the mind of the decision maker, and therefore a commission was formed by the Armed Forces to study the issue. This Commission discarded "making a parallel canal that was intended in the previous scenario to find an area with width ranging from 7 to 10 km between the two canals along the entire canal...In the appreciation and perception of the Commission it was to create a new entity on the extension, and for national security and security considerations in Sinai, this was excluded ". (From the speech of President Sisi on August 5, 2014)

And in confirmation of those established constants, it was decided that the specialized Egyptian national companies will work in the project under the direct supervision of the Armed Forces. And this is in commitment to the fundamental principle which is: the projects of digging the Canal along with its ownership are for Egyptians only, while the development project will be put forward in accordance with the Investment Law.

Third: The Implementation of the Project: Facts and Figures:

Implementation of the project took one year (August 5, 2014); the dry excavation works amount to 250 million cubic meters at an estimated cost of L.E 4 billion, while lengths of revetments reached 100 linear km at an estimated cost of L.E 500 million. Furthermore, the total dredging works amount to 260 million cubic meters at an estimated cost of L.E 16 billion.

Therefore, the existing western by-passes have been widened and deepened to a depth of 24 meters to allow ships with draft of 66 feet to transit. These by-passes include: the western by-passes of the Great Bitter Lakes, about 27 kilometers; the western by-pass of Ballah, about 10 kilometers. Moreover, the parallel waterway was dug by about 35 kilometers at the following specifications: the width of water level reaches 317 meters, and the depth of dredging reaches 24 meters.

Fourth: Dry Excavation Works: Main Stops ²³

On August 5, 2014, the President of the Republic exploded the sand dunes with of a large number of attendees, announcing the start of digging the new Canal.

After one day, August 6, 2014, excavation works started; these works were assigned to 33 civil companies specialized in excavation works in addition to two road battalions of the Engineering Authority of the Armed Forces.

On August 8, 2014, President Abdel Fattah Al-Sisi checked the start of excavation works in the New Suez Canal on the ground to get acquainted with the progress of work. He met during his tour, which lasted for 5 hours, from 5 am until 10 am, the project staff to be acquainted with the course of work.

The excavation rates of the New Suez Canal project at the end of day 20, (August 27, 2014), reached up to 18.5 million cubic meters of drilling mud after the supervising authority has directed the companies working in the project to increase the daily drilling rates to 1.4 million cubic meters, in addition to introducing an extra number of equipments and machinery to the work sites, some of them belong to the Engineering Authority of the Armed Forces.

Some 20.5 million m³ of sand have been completely lifted in the dry excavation works on August 29, 2014, and the number of companies involved in the project reaches up to 53 companies, in addition to the road battalions belonging to the Armed Forces.

On November 5, 2014 the daily average of the excavation works rose to 1.4 million m³, and the number of companies involved in the project increased to 72, and the working equipments increased by about 25%.

Some 100 million m³ of sand have been lifted completely in the dry excavation phase by November 7, 2014, out of a total of 180 million m³ schemed to be lifted during the project, which represents about 55% of the dry excavation works.

²³ A statement issued by the Armed Forces Morale Affairs Department, July 17, 2015

On January 15, 2015, the dry excavation works of the New Suez Canal have been completed at a length of 35 kilometers, and the four communication channels at a length of 4 kilometers after 161 days of starting excavation works.

On January 16, 2015, President Abdel-Fattah El-Sisi toured the New Suez Canal project by air, in light of the completion of the dry excavation works at a total of 180 million cubic meters before the scheduled date by three weeks, where he followed-up the work of the equipments and local and international dredgers that widen and deepen the new and the old waterways, in preparation for its inauguration as scheduled on the sixth of August, 2015.

And the excavation works were totally finished on January 22, 2015, in the new canal's waterway and the northern and southern entrances of the canal. And the discharging of sedimentation basins and engineering equipments in Ballah Island was completed as well, and features of the New Canal began to crop up whether in the waterway or in its sides.

The Morale Affairs Department of the Armed Forces issued a statement on July 17, 2015, in which it confirmed the completion on the ground of digging 250 million cubic meters of the dry excavation works at a rate of 100% of the main canal at a length of 35 km from the Km 60, Canal's numbering northwards until the Km 95, Canal's numbering southwards, and the communication channels at the Km (65-76-84- 89), Canal's numbering at a length of «4» km, with a total of «180» million cubic meters dry excavation works. Its implementation has been completed 100%. Moreover, the drilling of 70 million cubic meters to widen Ballah by-pass at a length of «10» km and width of «61» meters has been completed at an implementation percentage of 100% so that its width became «312» meters in addition to the engineering preparation of bridges and ferries, and discharging of sedimentation basins in the main channel, and the deepening and widening of the natural lakes in New Ismailia as well as excavation works by engineering equipments under water surface. Now, the works of filling with rubble after clearing and leveling of the sides of the canal are underway, where 57000 meters long have been completed of the total length, 80 Km long, planned to be implemented at an implementation percentage of 68.6%.

Chapter Four

Dredging the Waterway of the Suez Canal

Unprecedented Historic Achievement

The Suez Canal witnessed the largest dredging operation in history, according to the maritime concepts and standards, where the dredging process has been finished in nine months, with the participation of 75% of the global fleet of dredgers.

The lifting of 250 million cubic meters of dry sand, and about 260 million cubic meters of water-saturated sand in one year is not only an unprecedented achievement, but an event that has enabled Egypt to enter the "Guinness Record" by the largest dredging operation in the world²⁴.

Hence, the epic of dry excavation and dredging that took place in the Suez Canal over a full year will continue to be a witness to the strength and determination of the Egyptians in facing challenges and overcoming difficulties in order to restore Egypt's regional and international position.

First: Identifying the Terms: Dredging, Dredger and Revetment:

Dredging means the process of deepening waterways and removing sediments in them by special vessels known as dredgers²⁵.

The dredger is a digger that has a drawing slot from underneath that has the capacity of its own pumps that reach up to 12,000 horse, it drags sand blended with water to a depth of 30 meters and passes it in floating pipes, then in earthen pipes, where the cleansing output is dumped in the sedimentation basins prepared for that.

²⁴Admiral Mohab Memesh in an interview with the mediaman Khairy Ramadan in his program "Momken" on "CBC Channel" (29/05/2015)

²⁵George Halim Kirlous, op. cit., p. 163

The revetment is a building of stone or concrete that coats the banks of waterways to protect them from corrosion and collapse due to the effect of water currents or waves caused by ships' crossing²⁶.

Second: Preparing for the Implementation of the Dredging Project:

The specialists of the Economic Commission of the Suez Canal Authority with the participation of each of: the Engineering Department, the Dredging Department and the Transit Department have drawn up the economic feasibility studies and determined the expected return on shipping traffic of the Suez Canal from the implementation of the project. The results were encouraging for implementation for their good impact on both the ship owners and the Suez Canal Authority.

The results of the study were all in favor of what is currently being implemented, through taking into consideration the national security, and implementation of the entire project within the territory of the Suez Canal Authority earmarked for future projects of the Canal without resorting to expropriating public or private properties²⁷.

Starting Dredging Process:

Major General, Kamel Al-Wazir, Head of the Engineering Authority of the Armed Forces, announced the start of the dredging process after the completion of all preparations by using the giant dredger *El-Seddik*, which arrived at the work site in September 2014, to work in the northern entrance of the new canal at the km 58, Canal's numbering at Ballah area. The sedimentation basins that have been connected to suction pipes from the dredger to the sedimentation basin laden with water and sand, have been prepared and the water is separated from the sand and returns again to the excavation site.

Admiral Mohab Memesh, Chairman of the Suez Canal Authority announced on August 29, 2014²⁸ the arrival of the giant dredger *Tariq ibn Ziyad* and the dredger

²⁶ Ibid., the same page

²⁷ Admiral Mohab Memesh's statement, Al-Ahram Newspaper, April 4, 2015

²⁸ Al-Youm Al-Sabe'a, August 29, 2014

Tenth of Ramadan for the southern entrance at the km 95, Canal's numbering. Furthermore, the giant dredger *El-Seddik* joined them on August 30, 2014 at the Km 58; Canal's numbering, in Ballah area²⁹

Challenge Alliance: Giant Dredgers involved in Dredging the New Suez Canal³⁰

Prime Minister, Ibrahim Mahlab witnessed on October 18, 2014, the signing of the contract of dredging the New Suez Canal, which was concluded between the Suez Canal Authority and a group of the world's largest dredging companies under the name of Challenge Alliance due to the sheer magnitude of the required dredging works.

The Alliance includes the fleet of dredgers of the Suez Canal Authority, and the National Dredging Company of UAE (NMDC), and "Van Oord" and "Boscals" companies both based in the Netherlands, and "Jan De Nul" and "Dredging International", both of Belgium, and the US "Great Lakes" Company³¹.

According to the declaration, which took place in the Cabinet in Cairo, the dredging specifications and conditions necessary for the implementation of the project; "specifications - Drawings - Quantity Tables - Report for soil Researches - Contractual terms", have been prepared to be proposed to international companies specialized in the field of "dredging".

The project was divided into six zones: "Lot 1, 2, 3,4,5,6 ", and international companies were addressed. These companies are "Hota, Van Oord, Great Lakes, China Harbor, Boskalis, Jan De Nul, Demi, Penta Ocean, and the National Bulldozers".

²⁹ Al-Youm Al-Sabe'a, September 6, 2014

³⁰ Abdullah Khalifa, 9 giant dredgers involved in the first wave of dredging the New Suez Canal, Al-Badeel, December 8, 2014.

³¹ The news of the link: <http://www.ismailia.gov.eg/suezcanal/Lists/List/DispForm.aspx?ID=39>

After matching and reviewing proposals, 6 companies won out of 7, in addition to the fleet of dredgers of the Suez Canal Authority. The winning proposals were for the Dredging Company alliance in 4 areas: " Lot 2, 3, 4, 5", and the Alliance of "Demi and "Great Lakes" companies in the area "Lot 6", and Dredgers of the Suez Canal Authority took charge of the implementation of works of "Lot 1".

The technically matching companies have been called to complete the contract procedures and to start moving their dredgers fleet and the assisting units to work in the project. Then, a ceremony was organized in Ismailia on November 13, 2014 to announce the start of the Alliance's work officially. The first arriving foreign dredger was the UAE *Merfaa* "Harbor" on October 29, 2014.

Working Dredgers:

The dredgers working on the project included two types; the first is the "Trailing suction hopper dredger" which can carry 10,000 cubic meters of water-saturated sand and walk out with it to a distance of more than 20 Km to be dumped in another place. The Suez Canal Authority has three dredgers of this kind that are now working in the maintenance of the old waterway. The second type is the "Cutter suction dredgers"; they rely on the same idea but without moving from their place³².

Meticulous Follow-up to the Dredging Process:

The dredging process took place through three commissions, the first is for management, the second is for the follow-up, and the third is for logistics; and all of them are from the youth of the Suez Canal Authority³³.

The dredging works started on September 29, 2015 from the northern Ballah entrance and the southern Defersoir entrance where 3 dredgers entered the Canal.

³² Al-Ahram Newspaper, April 4, 2015

³³ Declarations of Lieutenant General Mohab Memesh, Head of the Suez Canal Authority, Al-Ahram Newspaper, April 4, 2015

45 Dredgers Participated in the Project:

The Suez Canal Authority succeeded in transferring 45 dredgers participated in the project, along with 300 other assisting maritime units. In addition, it expanded the expulsion lines of the dredgers whose total lengths reached about 100 Km to get to the sedimentation basins to dump the drilling mud, as well as finishing procedures of customs clearance for these equipments during this short period.

Important Stops during the Dredging Process:

Implementation rates of the plan for dredging the waterway of the New Suez Canal began by about 391,000 cubic meters per day, and increased for several times, reaching 500,000 cubic meters in December 2014. Moreover, the daily rate of drilling reached 850,000 cubic meters on January 20, 2015, and reached one million cubic meters on January 27, 2015, and reached about 1.3 million cubic meters per day in February 2015.

With the use of new dredgers, rates hit record levels as the daily dredging average almost reached 1, 400,000 m³ (in March 2015), and then increased to 1,500,000 m³ (in April 2015) till it reached 1, 627,000 m³ (in April 14, 2015)

Such record levels kept increasing as follows :

-1,642 000 ,m³ (April 29, 2015).

-1,695 000 , m³ (May 2, 2015).

-1,726 000 ,m³ (June 2, 2015).

-The highest monthly dredging average was recorded in April, where 45 million m³ were removed compared to the world record which is 8.5 million. Therefore, this record qualifies Egypt to enter Guinness World Records.

-Up to 260 million m³ of water-saturated sand were scooped up during the dredging works, while 250 million m³ were dredged during the dry drilling works.

-About 40 thousand workers belonging to 87 Egyptian and local companies in addition to many international companies participated in the drilling and dredging works,. Such the giant dredgers are equipped with the latest mechanisms.

The resurfacing works has begun at a rate of 100 linear meters per day, and then increased to reach a rate of 1250 per day, until it reached a rate of 1500 per day. This highlights the Egyptian man's ability to conquer difficulties and challenges.³⁴

As for the waterway navigation, it was provided with an electronic surveillance system, and 110 sophisticated buoys (navigational marks) were installed in the canal to send instant information and data to the control centers.

Therefore, the new Suez Canal project is not only a drilling process, but also a process that includes providing the waterway with navigational signs, maps and other electronic devices in addition to the training of pilots, where no ship is allowed to sail before being secured. This is altogether in parallel with and full coordination with the Engineering Authority of the Armed Forces.³⁵

The most important thing is that the new Canal is a pure Egyptian idea ,planning and funding through which the Egyptians proved their ability and will to face challenges and make achievements .

Through this development project 'The New Suez Canal', Egypt regains its position on the global investment map .

³⁴ The interview of Admiral Mohab Mamish, Chairman of the Suez Canal Authority, Al-Ahram, July 2015.

³⁵ Admiral Mohab Mamish, Chairman of the Suez Canal Authority, an exclusive interview with Nile News TV, July 19, 2015.

Chapter V

New Suez Canal.... Economic Dimensions and Implications

It is known that the developmental and economic dimensions of the new canal will not just only shorten the ship passing hours from 22 to 11 hours making it the world's fastest channel³⁶, or the passage of ships in both directions without waiting, but also there are other important implications related to the development of the Suez Canal axis.

In general, the Suez Canal is a safe place that provides all the international standard specifications required for maritime transit. It, also, saves time as it shortens the distance of the journey. The containers represent 54% of the number of vessels passing through the canal. In this respect, it is worth mentioning that CSCL GLOBE, the largest container vessel in the world, transited the canal on December 31, 2014 carrying 19 thousand containers. Actually, the Suez Canal has been ready five years ago to receive even more huge vessels which are under construction nowadays and designed to carry more than twenty thousand containers And thus the development of the Canal is carried out in steady steps.³⁷

This project aims, mainly, to improve the living conditions of each and every citizen in Egypt. It, also, seeks to raise the level of workers, peasants as well as the middle class, provide job opportunities for young people, increase exports, develop international trade, increase the diversify of existing activities in the region, Increase the volume of cargo transportation, maximize the revenues of the Suez Canal, maximize the role of multimodal transport, and finally develop Sinai and maximize the utilization of its various natural wealth.

There is no doubt that this project with its economic and investment implications will effectively contribute to the enhancement of the Egyptian national security on the one hand, and the consolidation of social security on the other hand by the containment of the problem of poverty, in addition to the revitalization of economic activity in general through a series of accompanying projects such as the

³⁶Statement of Admiral Mohab Mamish, the Chairman of Suez Canal Authority, 13/6/2015.

³⁷Statement of Tarek Hassanein, spokesman for the Suez Canal Authority, 01/07/2015

development of five strategic ports on top of which are , Ain Sokhna and East Port Said, besides other expected projects such as vehicle and electronics assembly, petroleum and petrochemical refining. This, in return, will undoubtedly attract millions of Egyptians to settle in the Suez Canal region and Sinai.

First: The Suez Canal Axis Development Project

The executive plan of the Suez Canal Axis project includes the implementation of 42 projects, of which six projects have the priority, namely: the development of both Cairo / Suez and Ismailia / Port Said roads to become freeways, the construction of the Ismailia tunnel that passes through the Suez axis in order to link between the two banks of the canal, the construction of a tunnel south of Port Said under the Suez Canal in order to link between the eastern and western sectors of the Suez Canal, the development of the port of Nuweiba as a free zone, the development of Sharm el-Sheikh airport, and the creation of a new water intakes on the Ismailia Canal till the east of the canal purification plant site so as to support new development zones.

1- Project Bases³⁸

The Suez Canal development project is based on Egypt's need for mega-projects to support its national economy and to exploit its existing potentials as well as to exploit its geographical backyard through the establishment of industrial and logistic areas that depend on the exploitation of the goods transported through the Suez Canal.

2- Proposed Projects

The project aims to link between Sinai and the homeland through seven tunnels under the Suez Canal, three of which are in Port Said, including two vehicles tunnels and a railway tunnel, while the other four tunnels are in Ismailia, including two vehicle tunnels, a railway tunnel and a utility tunnel. This is at a cost of \$ 4.2 billion.

These proposed projects include vehicle assembly plants, glass, pharmaceutical and electronics, textiles, wood and furniture, paper, sugar, food packaging, petrochemical and mining, logistics distribution centers, and supply chain industries, ships services, shipbuilding and repair and manufacturing and maintenance of containers .

³⁸Al-Ahram digital, August 17, 2014.

3- The Location of the Project³⁹

The location of the project comprises El Arish port, the geographical backyard of East Port Said Port, West Port Said Port, Technology Valley east Ismailia, Adabiya port , the industrial zone northwest Gulf of Suez, and the port of Sokhna.

Second: The National Project for Fish Farming

The Suez Canal zone is a good environment for the establishment of fish farming project that aims to produce a hundred percent safe marine product. Some of the most important types of fish targeted in fish farming are (sea bream, sea bass and croaker), while shrimps are one of the most important types of crustaceans farming.

The project gives high productivity aiming to cover the demand for protein in Egypt, especially that meat and poultry have become high in price. Thus, if fish farming succeeded in producing a great multitude of fish, this will lead to self-sufficiency and reduce imports ".

1- Aims and Benefits of the Project

The integrated fish farming project achieves a bunch of advantages, on top of which is the reduce in the costs of transport as well as in the common spoilage of fish. It is worth mentioning that this area is perfect for fish farming as it is very close to the major ports, namely: Suez, Port Said and Damietta and is also to some extent near the port of El Arish. This means that it is easier to both import and export saving lots of high costs rather than it has been anywhere else. This is in addition to its closeness to the local market, where fish can be distributed in Greater Cairo (Cairo, Giza and Qalyubia), Dakahlia, and the Canal markets in addition to the markets of North and South Sinai. It will, also, provide fish farms, factories, refrigerators and the works of Stevedoring companies and many others.

2- The Establishment of Fish Farming Ponds:⁴⁰

On June 25, 2015 a number of 500 fish farming ponds were completely established out of a total of 1380 to be completely drilled by the end of the first phase of the project. This project aims to provide fish and contribute to bridging the food gap in

³⁹ The word of Admiral Mohab Mamish, the Chairman of Suez Canal Authority, August 5, 2014.

⁴⁰ The Middle East News Agency report, 26/07/2015

Egypt, where the initial production shall range between 10 thousand and 15 thousand tons targeting to mount up to 50 thousand tons.

The project will be implemented in several stages until the production reaches 80 million fry per year. It shall comprise fodder factories, a fry hatchery, and an integrated complex for the production, canning and packaging. The total number of ponds is estimated to reach 3800 ponds by the completion of the project .

3- The International Cooperation in the Field of Fish Farming

On April 29, 2015 a protocol in the field of fish farming has been signed with one of the Spanish companies aiming to provide safe food products that meet the needs of the community and represents the mainstay of sophisticated industries.

There are studies with many Spanish and Korean international parties for the implementation of the largest project for fish farming in the Middle East that will be held on both sides of the Canal at a length of 120 kilometers. According to the researches, this project would achieve a complete self-sufficiency of fish production in Egypt .

Third: The New City of Ismailia:

President Abdel Fattah El-Sisi approved the establishment of the new city of Ismailia⁴¹ (November 6, 2014), which is considered the best extension of the current city of Ismailia, in terms of location and nearness to the Suez Canal Axis. It, also, achieves one of the national security objectives concerning the reconstruction of Sinai⁴². The city can absorb the natural population growth and the urban expansion of the governorate of Ismailia as well as the neighboring governorates. It, also, serves the expected labor that shall come to work in the Suez Canal development projects. It is worth mentioning that this project is expected to provide more than a hundred thousand jobs at least during the construction period.

The city will be founded on the eastern shore of the Suez Canal opposite to the city of Ismailia extending from kilometer 76 South the middle road till the area on the opposite side of Mount Mary. It is a integrated residential city.

⁴¹ Al-Ahram, November 8, 2014.

⁴² Mahmoud Mohammed Radwan, The New Ismailia ... A Battle of Development East of the Canal, Egyptian Today, 22/3/2015.

This new city relies on alternative sources of energy produced from the wind besides the electrical sources .

On the governmental level, it will be the first city that gives due interest to people with special needs in terms of services, elevators and entries even within their residence in order to spend their daily life without the help of others.

The new city of Ismailia will cover an area of about 2157 fedans at a length of 11.3 kilometers between the two navigational waterways of the Suez Canal. The project, also, includes the establishment of 57 thousand and 54 residential units, 620 semi detached villas and 373 detached villas, all provided with health service and social facilities in addition to a sports club of the armed forces.

The city comprises 7 residential districts, which are planned to be established through seven stages. Each district will include 700 residential buildings and a number of villas finished with complete utilities and services, in addition to other service buildings such as schools, markets health units and hospitals.

Such residential units are divided into four levels to suit all social segments, namely: the 90 m² model (economic housing), the 120 m² model (average housing), the 145 m² model (above average housing), and the 160 m² model (luxury housing).

The city is located about 500 meters far from the new canal beach, in particularly extending to the north from Ferry no.6 till Port Said with a length of 1.5 km, and to the south towards Suez with a length of 9.5 km to the south in the direction of Suez, at a depth of about one kilometer inside the Sinai Peninsula.

Fourth: Other Future Projects

1- The Establishment of a Technological City and another for Small Enterprises

In his word before the activities of “Egypt Economic Conference (March 14, 2015), Vice Admiral Mohab Mamish said that the planning for the Canal Project included the establishment of national mega projects through defining the kind of industries in all fields and specifying the logistic zones, in addition to establishing sources for the infrastructure , for an integrated technological city, and for a small enterprise and medium-size enterprise city so as to provide more than 1 million job opportunities, besides the land on which the project will be constructed by the

Usufruct for foreign and Egyptian investors for long periods. Mamish called all investors to invest in the Suez Canal Development Project.

2- Construction of Industrial Zones in the Canal Governorates:

On March 5, 2015, Minister of Investment Ashraf Salman asserted that the Suez Canal Development Project will represent around 30 to 35% of Egypt's new economy. It will also include industrial zones on an area of 72 km² from the Canal governorates (Ismailia, Suez, Port Said) in addition to the establishment of 6 harbors in partnership with the public and private sectors.

On the periphery of Egypt's Economic Conference (March 16, 2015), Ashraf Salman and Mohab Mamish had both signed an understanding memorandum that requires the Ministry of Investment to propagate for the economic zone of the Suez Canal Corridor Project until a special authority for the Corridor is established.

For example, on December 27, 2014, a number of printing and packaging companies declared the establishment of the biggest printing and packaging city over the Suez Canal Corridor.

On January 9, 2015, the first Humanitarian Relief Center has been inaugurated at the Suez Canal Authority with a UAE participation. The Center aims at providing logistic support and urgent relief substances in case of natural disasters such as floods and earthquakes.

Furthermore, the Sixth of October Investors Association has presented a request to establish a major industrial zone according to international standards in order to attract no less than 500 foreign investors to work in the Egyptian market.

3- Activating Trans-Ports Tourist Trips:

The new Canal should attract further tourist trips that were always hampered by the long hours of wait before digging such a Canal. It also should enable the North and South caravans to pass nonstop⁴³, especially that the Canal cities and North and South Sinai are all rich in their tourist, cultural, environmental, and recreational destinations, in particular the beaches, safari and diving tourism.

⁴³ Ahmed Sayed al-Naggar... The New Canal.. a Huge Locomotive for Development and the Possible Mechanism for Financing, Ahram, June 15, 2015.

4- Maximizing Benefits from the Canal Area Natural Resources and Raw Materials:

Turning the Suez Canal from just a commercial crossing to a distinguished international maritime, logistic, industrial and urban zone means that the new Canal constitutes an additional value for the national economy. This is represented in increasing the national income due to doubling the Suez Canal revenues, establishing industrial and economic edifices based on the abundant raw materials in the canal area such as petroleum, natural gas, Manganese, sand, glass, gypsum, choline and granite rocks.

Moreover, establishing and developing of ports, in addition to activating other production factors, should change life, not only in this particular area, but throughout the whole country.

The inauguration of the Suez Canal in 1869 was a turning point in this zone which had witnessed a growing urban development along years. This turning point marked the birth and development of major cities (Suez, Ismailia, and Port Said, and North and South Sinai). Today, Egypt is in a date with history. It is an achievement that has been implemented by Egyptian hands and Egyptian money. It is a new Canal that will provides new opportunities for a set of mega projects that would open new vistas towards comprehensive development in various agricultural, industrial, and urban fields.

Chapter 6

Societal Participation in all Project Phases

Since the beginning of the project, the political leadership was keen on the participation of all societal sects, including youths, children, people with special needs, among others. When President al-Sisi gave the starting signal by destroying the sand berm (August 5, 2014), he demanded the participation of all age brackets saying: "I will not do this alone," which means that this project is mainly implemented for the benefit of the coming generations.

There is also the public subscription through the investment certificates which were available, with no conditions, to all Egyptians in the national banks; Banque Misr, Banque du Caire, and Suez Canal Bank, with an interest rate of 12%. During the subscription days, Egypt witnessed an unprecedented popular response on the process of purchasing the Certificates to the extent that, during the first 10 hours of the 1st day (September 5, 2014), the revenues exceeded LE 6 billion. It then reached LE 20 billion during the 1st three days, to reach LE 64 billion by the end of the subscription on September 15, 2014.

In this vein, President al-Sisi called the youth to visit the working site. This call carried between its folds strong indications of entrenching and maximizing the value of work in youth on the one hand, and motivating the workers on the other hand. Such a call received a rapid popular response, where the youth campaigns were not only limited on visiting the working site, but they also showed their keenness in participating in the drilling works.

National Realignment on the Official and Popular Levels:

During the past year, the march of national work witnessed a deep interaction on all levels. This was mainly represented in the national realignment on both the official and popular levels, manifested in the continuous visits to the drilling site; thus motivating and raising the morals of the workers who worked day and night and given up their holidays for the sake of this huge national project.

On August 8, 2014, three days from the beginning of the drilling process, President al-Sisi visited the site for five hours; from 5 am till 10 am.

On August 20, 2014, Prime Minister Ibrahim Mehleb was keen to visit the drilling site. He told the workers "consider me under your service, being an

engineer with a little experience, allow me to work with you for one day to gain this honour and to tell my grandchildren, and I shall work this whole day."

Afterwards, the visits from various officials continued to support and encourage the workers there. In this respect, Colonel General Sedki Sobhi visited the drilling site on September 5, 2014 and honoured the workers and those in charge of the drilling works.

On February 22, 2015, President al-Sisi paid a sudden inspection tour, where he rode a motorboat of the Suez Canal Authority in the New Canal waterway. This was the first passage in the New Canal's waterway.

Official and Popular Delegation visits to motivate the Workers:

On August 17, 2014, the Grand Imam of al-Azhar visited the drilling site. In this respect, he asserted his full support to the national project which represent a challenge that proves the determination and strength of the Egyptians. On June 11, 2015, Pope Twadharos asserted that the Suez Canal Project is a great achievement and that Egypt's glory was renewed by President Abdel Nasser's nationalization of the Canal that was reopened during al-Sadat era. In this respect he said "the glory is magnificently renewed by drilling the new Canal which is a pride to the whole world and to the Egyptians."

Furthermore, Dr. Ahmed Zewail visited the project on September 18, 2014. He asserted that this project will be linked to all aspects of scientific renaissance in Egypt through joining the Scientific Research Centers of Zewail City of Science and Technology, in addition to studying the possibility of establishing a branch for the City in the Technology Valley. He added that the main aim behind his visit is to ensure the mutual cooperation between the scientific renaissance project and the Suez Canal Development Project, especially with the existence of around 16,000 feddans in the Technology Valley area, east of the Suez Canal, which needs a scientific methodology to reap the utmost benefit.

In assertion to the scientific methodology which constitutes a governing framework for the Suez Canal Project, President al-Sisi assigned Vice Admiral Mohab Mamish on October 6, 2014 to visit the states with industrial logistic zones, such as Singapore, Hong Kong, and China in order to be informed with the experiences of such states in managing these zones and to be acquainted with the

state-of-the-art technological and legislative means which realizes profitability in investment.

The Egyptian Implementation is a Proof on the Independence of National Decision:

On March 8, 2015, the late Prosecutor General Hisham Barakat, paid a visit to the new Suez Canal Project. He said in this respect, "the implementation of the Project with Egyptian hands is a proof on the independence of the national decision, asserting that this project represents a huge leap on all levels, as it should save Egypt from the economic regression and would lead it towards the horizons of advancement, flourishing and stability." Barakat called the Egyptians to unite against the hurdles in order to put Egypt on the road of development, especially that Egypt possesses various potentials that qualify it to be among the major countries worldwide.

One of the most significant visits is that of the delegation of the Chamber of Engineering Industries at the Federation of Egyptian Industries on March 18, 2015. There is also the visit of the Faculty of Tourism and Hotels, Fayyoun University which organized a visit there to explain the details of the project to the students.

In the same vein, the national events are regarded a favorable opportunity to interact with the works on the Bank of the Canal. Within the framework of the Ministry of Youths' celebration of the Egyptian Girl's Day on March 24, 2015, a delegation of 800 girls visited the site, carrying the Egyptian flag. This delegation included female students from governmental and private universities, high institutions, Bishopric youth, Nubian girls, and youth centers, in addition to the female champions of the Olympics and the female members of the volunteer clubs, to know the latest developments of this project.

As regards the Arab, African and international non-official levels, several visits can be monitored as follows: the Egyptian-Korean Friendship Association visit on May 27, 2015 to the drilling site in order to express its participation and support to the efforts of the Egyptian economic and civilizational march. A delegation of African youth studying in Egypt and workers in the African affairs paid a visit to the site on June 17, 2015. The delegation includes 13 countries; Egypt, Sudan, South Sudan, Ethiopia, Tanzania, Kenya, Rwanda, Uganda, Djibouti, Somalia,

Algeria, and Morocco. On September 15, 2014, the Council of Arab Businesswomen paid a visit to the project, where the Chairwoman of the Council, Sheikha Hissa al-Sabah declared that the Council is about to establish an investment company at the Suez Canal Corridor area. In this respect she said "the new Suez Canal Project is a pride for all the Arabs, not only for the Egyptians."

Edited by: Dr Ahmed Abul Hassan

Translation by

Ashraf Awwad

Amal El-Kady

Reham El-Wakil

Ola Gamal

Yousra Gamal

Heba Nabil

Amany Abdel Samad

Mona Zakaria

Lay out

Ashraf Abu El-Nil

Shaimaa Abd El-Sabour

Walaa Abd El-Aziz

General Supervision

Dr. Raafat Al-Sab'a

