

Investment mechanisms required for the great port of Al-Faw and the Dry Canal and their economic implications in Iraq

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ABSTRACT

The construction of the Al-Faw port project and the dry canal project, and the completion of the transportation infrastructure for these two projects, are among the main pillars of supporting the Iraqi economy through the expansion of national import and export programs in the long term. This will lead to encouraging and attracting transit trade through Iraq by shifting the maritime transport traffic from northern, central, and southern Europe to Iraq. The port of Al-Faw and the Dry Canal lead to the development of the southern region of Iraq, thus absorbing unemployment, and developing the infrastructure for the transport sector. Therefore, the research concluded the importance of developing, building, and modernizing the Iraqi railway network and the highway network, and the need for a kind of balance between the Al-Faw port project, which has capabilities and specifications that meet the needs of modern shipping, with the modern road and railway network project, as these two projects are considered a prerequisite for the success of the project. dry channel.

Keywords:

Investment, Transit trade, Al-Faw port, Dry canal, Infrastructure

Introduction:

One of the most important political goals for the transfer of patriotism in Iraq is to find a transport system that meets the requirements of trade and economic development at the lowest possible cost. government and excluding the local and foreign private sector from engaging in real participation or in the reconstruction and development of infrastructure, as investment through the private sector has many economic, technological and social returns, including the introduction of modern investment systems represented by partnership between the public and private sectors, as these systems include a

group of The advantages include sharing risks and reducing costs that burden the government budget, in addition to achieving economic gains by reducing costs and achieving great benefit for the user on the one hand and the company providing the service on the other hand, as well as striving to maintain the process of competition between companies in order to provide the best services, There is no doubt that investment in the infrastructure of the port sector has a major role in stimulating the growth of the domestic product, developing the economy and securing sustained moh. Infrastructure projects in the ports contribute to creating a suitable ground for attracting

investments and creating many job opportunities.

Since the establishment of the great port of Faw and the Iraqi dry channel as an additional or alternative way to transport goods coming from East Asia towards Europe or the eastern Mediterranean, will lead to high rates of economic growth and this has a significant impact on changing the volume, routes and systems of maritime transport in the region.

Like other projects, the canal project needs a study that examines its economic feasibility and technical capabilities, to form the basis and logical motive for proceeding with such projects or not, or modifying its objectives to suit the facts on the ground. This makes its implementation from Iraq a corridor linking the countries of the East and the West by linking the dry canal through the Silk Road, and that one of the most important challenges facing this project is the railway link between Iraq and China, and these challenges are represented by the instability of the security and political conditions and the difficulty of financing. And the main conclusion regarding transportation in general in our country is that the required infrastructure is either existing or under construction, and what is required here is to improve its use in order to cope with the increased demand for transportation.

Research problem :

The Faw and Dry Canal project faces many challenges, represented by poor financing, the economic inability to provide the necessary liquidity, and the unwillingness of some neighboring countries to complete this economic project is detrimental to it

Research hypothesis:

The hypothesis of this research is to complete the Faw port project, which will change the maritime map, and makes Iraq the most important dry channel and bridge linking the East with the West

Research goal:

The research aims to:

1. The economic importance and strategic location of the port of Faw.
2. Challenges faced by the construction of the port.

3. Challenges faced by the construction of the dry canal.
4. Railway linkage project and the Silk Road

The first requirement:

Joint operation and the most important systems adopted in Iraqi ports by the joint operation department and the national development plan for the period (2018-2022)

First: its establishment and tasks

The joint operation department is defined as a department that was established by the General Company for Iraqi Ports in 2008 and its tasks are based on managing and implementing partnership contracts with the private sector. For the year 1997, as amended for the year 2004 of the Public Companies Law, which included the implementation and management of rehabilitation works, the development and construction of sidewalks, and all agreements that regulate technical matters, the distribution of risks, the division of tasks, the duration of investment, and the collection and division of financial returns according to the terms of each contract and according to the type of work, as a number of contracts were signed, which were successful. This led to the continuation of the conclusion of contracts and the expansion of the work base of the department, as the General Company for Iraqi Ports took this step and established the joint operation department in 2008, which is concerned with implementing partnership contracts with the private sector and following them up in all the ministry's formations, as the department was linked to the technical department in 2014 according to the book of the Ministry of Transport No. (22311) on 5/8/2014, and it was disengaged from the technical department and linked to the structure of the Contracts Department under Ministerial Order No. (28674) on 4/10/2016 .

Second: Objectives of the Joint Operation Department: (Khalifa & Shaker, 2016: 39)

1. Increasing the current capacity of ports and improving their shipping lanes.
2. Compete with the ports of neighboring countries through the establishment of additional major ports.

3. Implementation, operation and provision of services by strengthening the role of the private sector
4. Improving the efficiency of workers and developing their expertise by introducing courses to work in ports.
5. Introducing modern technology that will develop work and project workers

Third: The national development plan and its impact on ports for the period (2018-2022):

The development plan mentioned the establishment of a large port, the port of Faw (the great port), the development and reconstruction of other small ports, and the maintenance of existing facilities: (Ministry of Planning, 2017: 161)

The first goal:

1. Improving and developing the work of ports, harbors and navigation channels, and providing them with marine services through provide the required funding.
2. Contracting with international consulting companies to develop, modernize and improve the level of existing ports and raise the performance compete with other companies in neighboring countries.
3. Continue dredging the depths of the navigation paths that lead to the ports.
4. Install modern electronic devices and equipment to monitor ship movements and manage and operate ports.

The second goal:

1. Completing the infrastructure of the great port of Faw and competing with the ports of neighboring countries.
2. Maintaining and improving the performance of new service ships. Providing the necessary marine services to the oil ports in Basra and the liquid gas anchorage in Khor Al-Zubayr.

The third goal:

1. Enhancing the participation of the private sector in the implementation and operation of port services
2. Establishing infrastructure, operating container berths and providing port services such as docking and berthing.
3. Establishing a multi-purpose berth in Umm Qasr port with a designed capacity of (3,750,000) tons per year.

4. Establishment of additional berths for containers in the port of Qasr with a designed capacity of (2,000,000) tons per year.
5. Construction of multi-purpose berths in Khor Al-Zubayr with a design capacity of (4,250,000) tons per year.
6. Manage, operate and improve the level of the ports of Al-Maqal and Abuflos

The fourth goal:

1. Improving the skills and competence of personnel in ports
2. Improving the professional capabilities of port employees by preparing a scheme to develop their skills
3. Establishing a vocational training institute.
4. Review the numbers of unnecessary staff positions
5. Review the salaries and allowances of employees to be equal to the competing ports.

The second requirement:

The most important partnership systems and contracts concluded with the General Company for Iraqi Ports

First: the most important partnership systems approved by the General Company for Ports and the Joint Operation Department: (Ministry of Planning, 2016: 34)

The contracting process between the public and private sectors is one of the tasks of the General Company for Iraqi Ports and its joint operating department. The General Company for Iraqi Ports has relied on partnership contracts according to the (B.O.T) system, because the risks of construction, operation and management are undertaken by the private sector, in addition to the company benefiting from the experience of the sector This type of partnership system also represents an attractive factor for investors due to the magnitude of the work in which this type of partnership system is used as a sector ports and that the most prominent systems in force globally are (0.0.B.O.T/B.O.O.T/B).

The use of the (B.O.O.T) system is not feasible for the Iraqi public sector, since the project during the period of operation and maintenance is not subject to the domination of

the state, even if it is subject to its supervision, which It cannot be bypassed in the Iraqi ports sector, and the (0.0.B) system is not applicable in the port sector in Iraq also because projects under this system are not subject to state control and oversight during the period of operation and maintenance, in addition to the risks of losing control over the nature of the project through Its activity changed by a decision of the original owner (the private sector. Investment in the port sector is very necessary because of the enormous economic potential it provides to the ports as a result of what has been proven by the joint operation experiences in the port sector of some countries. , As the opportunity is favorable for Iraq by linking the east with the west with the great port of Faw through the dry channel, and it is also considered one of the solutions in light of the unemployment crisis that Iraq is currently going through.

Second: Partnership and joint operation contracts in the transport sector (ports)

The experience of implementation and joint operation is one of the most important experiences that tended to enhance and encourage the role of the private sector. This trend is considered one of the strategic goals of the ports, which enhances the future vision of the General Company for Iraqi Ports, as berths and yards for the ports have been modernized, developed and added to each of (the northern and southern port of Umm Qasr and the port of Khor Al-Zubair And the port of Abu Flus, the port of Al-Maqil, the port of Al-Faw and Shatt Al-Arab), as the combined number of berths in these ports is (54) berths, which varied between commercial and oil.

The following are the details of the contracts concluded from 2008 to 2020, my agencies: (Ministry of Transport)

A. Partnership contracts in the southern port of Umm Qasr (1):

1. A contract for the rehabilitation, management and operation of berth No. (5) with the British Global Company.
2. Memorandum of Understanding for the operation and rehabilitation of Berth No. (5) with Ghazal Company

3. A contract for the rehabilitation, management and operation of berth No. (8) with the British company Golfins.
 4. Management, operation, rehabilitation and maintenance of quay suction (1, 2 and 3) and the construction of two side berths for the construction of Tanks on it between the General Company for Iraqi Ports and the Gulf Grain Handling Company (GGH).
 5. A contract for the management and operation of berth (4) in the southern port of Umm Qasr with Manarat Umm Qasr Agencies Company Navy and its partner, Sama Al-Manar General Trading Company).
 6. Contract for the management and operation of berth (6) of the southern port of Umm Qasr with Khairat Al-Sibtain and their partners each from (Marsa Al Janoub Company, Iwan Al-Amarah Company, and Al-Khamail Marine Services Company).
 7. Contract for the management and operation of berth No. (5) of the French company CMA CGM
 8. A contract for the rehabilitation, management and operation of berth (7) with the Bulgarian Shipping and Marine Services Company and its partner land of the Two Rivers Company
 9. Operation and rehabilitation contract for berths No. (8, 8A) and (9) with Jannat Al-Firdous Oil Services Company.
 10. Contract for managing and operating a container storage yard with Saba Marine Services Company.
 11. Container yard contract for Al-Khamael Maritime Transport Company.
 12. The contract for the yard located behind berth (11) with the Lorraine Company.
 13. A contract for the establishment of the electronic collection system with Al-Riya Group Company.
 14. A contract for the purchase, supply, installation, management and operation of sonar examination devices with Al-Riya Group Company.
- B. Partnership contracts in the northern port of Umm Qasr:

1. Contract to build a global warehousing logistics station with the Gulfins Company
 2. Rehabilitation, management and operation contract for two berths No. (811) and (B11) with the British company Colvins and considering it Iraq Container Terminal.
 3. Rehabilitation, management and operation contract for berth No. (12, 13, 14 and 15) with the French Lorraine Company.
 4. Rehabilitation, management and operation contract for berth (15,14) with the French Lorraine Company.
 5. Contract for the construction, rehabilitation, management and operation of berths No. (19, 20, 21 and 26) with the Philippine company (ICTSI).
 6. Raseef 16 in the northern port of Umm Qasr concluded a joint venture with Marlock and Al Safwa companies.
 7. A contract for the rehabilitation, management and operation of berth No. (17) and a storage yard attached to the berth, the establishment of a new storage yard and the construction of two new berths in the port of Umm Qasr with a partnership contract between Manarat Umm Qasr Agencies Company Marine and Ataa Al-Qarbi Company for General Trade, Navigation and Maritime Services.
 8. A contract for the rehabilitation, management and operation of the berth (18) with Baha Baghdad Company, a group of contracting companies.
 9. Refrigerated warehouse contract with Krasco Refrigeration Office.
 10. Container yard contract (102,000/m²) with Sama Al-Yamamah Industrial Investments Company.
 11. A contract for berth (20) in the northern port of Umm Qasr and the construction of three new berths corresponding to berths (19, 20 and 21) and berth No. (27) represents the first phase of building and establishing three new berths Berth No. (26) represents the first phase of building and constructing three new berths, and Berth No. (25). It represents the first phase of building and constructing three new berths with the Philippine company ICTSI.
 12. Container yard contract (24,25) with Rayana Al-Oud General Trading Company.
 13. Container yard contract (80,000/m²) with Ittihad Al Badia Company.
 14. Container yard contract (80,000/m²) with Al-Mithqal Al-Dhahabi Company for General Trade and Public Transport
 15. Logistical support contract with Nafez Company for Logistics Services.
 16. Electronic management and operation contract with Manarat Umm Qasr Company
 17. A contract for the rehabilitation, management and operation of a piece of land with Al-Rashed Storage Yard
 18. Contract for the construction, management, operation and maintenance of an independent multi-purpose station with three berths in Channel No. 1 / 2 with Bar Al-Aman Contracting and General Trade Company.
 19. Contract for supplying, installing, managing and operating the electric power generation station with Prime Metro Company Powerholings Corporation.
 20. A contract for the rehabilitation, operation and management of the grand welcome yard in Umm Qasr ports with a consortium of companies (Company Al Raya Group, GGH Company, and Rayana Al Oud Company).
- C. Partnership contracts in the port of Khor Al Zubair:
1. A contract to build, operate and rehabilitate two berths with an area of (1500 square meters) for the British company (BP) British Petroleum.
 2. A contract for the rehabilitation and management of Quay No. (1) Mitsubishi with the Makkiyah and Arabian Road Company

3. Management, operation and rehabilitation contract with the General Company for Oil Lines for berths (2, 3 and 4).
 4. Joint management and operation contract, construction and construction of an oil berth for berths (4 and 5) of Al-Bayt Al-Mamoura Company.
 5. A contract for the management and operation of berths (5, 6 and 7) for the Naseem Iraq Company
 6. Management and operation of Berth No. (8) with Khor Al-Zubair Marine Container Handling Company.
 7. Management and operation of berth (8) with Mallock Company.
 8. Rehabilitation, management and operation contract for berth No. (8.9) with the German company Marlock.
 9. Contract for the management and operation of berths (10 and 11) for the Ocean Land Company and its partner, Wahj Al Thuraya.
 10. A joint construction, management and operation contract for the oil berth (11) for Abi Al-Khasib Company and Al-Yamamah Company.
 11. A contract for the management and rehabilitation of berth (12) with Al-Duwaib Company and the Gulf Energy Company.
 12. A contract to establish, manage and operate marine berths with Vitol Dubai Limited.
 13. Construction, operation and management contract with Sama Al-Yamamah General Contracting Company Baghdad.
 14. Wharf 13 management contract with Uruk Oil Derivatives Trading Company.
 15. An oil berth management contract with Prince shipping services.
 16. A joint construction and operation contract with Al-Jawareh Company for the transportation of products.
 17. A contract for the construction, construction, management and joint operation of a specialized berth for livestock management with Aman Company
 18. Joint management and operation contract for the new Khor Al-Zubair oil station with (YILDIZ) company.
 19. A joint operating contract for burnt oils with Jabal Al-Basra Company.
- D. Partnership contracts in the port of Abu Flus:
1. Rehabilitation, management and operation contract for berth No. (1, 2 and 3) with Manarat Umm Qasr Company
- E. Partnership contracts in the port of the stronghold
1. A contract for the rehabilitation and operation of the ice plant in Al-Maqal Port with the investor, Latif Abboud Jassim.
 2. A contract for the rehabilitation and operation of berth (14.13) in the port of Al-Maqal with the American company NOAA.
- F. Other contracts, in addition to the conclusion of the (3) contracts for the port of Faw, which included management, operation and rehabilitation, as these contracts were concluded with Al-Modon Oil Services Company and Hayat Al-Janoub Company for oil services as well. And the conclusion of joint operating contracts for the Shatt Al-Arab, which included management, maintenance, rehabilitation and joint operation contracts, including a contract for the rehabilitation of the Shatt Al-Arab Hotel by Al-Rahil Company for General Trade and Maritime Services, and also the conclusion of a contract for the construction, equipment and management of the port printing press by Haqi Office for Printing and Advertising and the conclusion of a contract with the Gulf Navigation Company for the purpose Re-operation and joint management of the operations of the southern oil ports for fixed berths and single buoys, and a management contract for cargo transportation operations between ships for Taj Al-Bahr Marine Services, Trade and General Contracting Company Limited.
- As for the other contracts, they are concerned with the rehabilitation of storage

yards and container terminals, as their number reached (14) contracts, and other contracts varied between electronic collection systems, automatic entry, systems for managing port activities, and other contracts, including a contract for refrigerated warehouses in the northern port of Umm Qasr, and a contract for the purchase, supply, installation, management, and operation of equipment Sonar examination in the southern port of Umm Qasr, a contract for the supply, installation, management and operation of the electric power plant, and logistical support contracts.

It is noted from the contracts concluded from 2008 until 2020, which fall within the method of joint operation, rehabilitation and maintenance, that the ownership of these projects will eventually return to the state after the expiry of the contract period, and this is what distinguishes the (B.O.T) system approved by the Ministry of Transport and the Joint Operation Department that It manages and monitors the mechanism of implementing these contracts in all its sectors, including the General Company for Iraqi Ports, as the General Company for Iraqi Ports has transferred a number of berths, squares, management systems and other port infrastructures to local and international companies to be developed, modernized, managed and operated in a joint implementation and operation method known internationally as the system (B.O.T) As large international companies specialized in port work, maritime transport, management and operation of berths were attracted according to this system and partnership contracts were organized with them, taking advantage of the experience of the cadres of the General Ports Company in their formulation of partnership contracts and agreement on all technical and financial clauses and frameworks within a real partnership framework, and this is what was approved in the construction contracts Al-Faw Al-Kabir Port, which was transferred to the (Hanna) Al-Sheikh (Holding) Company, which prepared plans, studies and research for it (Ministry of Transport).

The third requirement:

The motives for adopting partnership methods in Iraqi ports:

The process of privatization, which is the transfer of ownership of ports from the public sector to the private sector, in order to undertake the financing of investments and the performance of services, as privatization promises the sale of the state's assets in full to the private sector, and the privatization of ports cannot be considered a global phenomenon and does not reduce the public burdens of the state. As a result, many countries have turned to partnership systems, as port users must finance most or part of the facilities required in seaports while retaining the state ownership of the assets, which achieves the public interest and without the government taking financial risks. Therefore, the term port privatization is inaccurate for this phenomenon. The Navy tends to compete to raise rates of production efficiency. There are many elements and indicators whose efficiency and quality are related to the extent to which Iraqi port users tend to partner, and these elements include the following (Abu Maash, 2011: 178-180):

First: They are basic services and include marine services such as protection, communication, ship traffic management, and management services such as (facilities services, information management service, and station services, which include assembly, repackaging, and storage).

- The first: Partnership in the field of Iraqi port jobs: According to the concept of partnership, it requires a study of the possibility of the participation of both the public and private sectors in performing the tasks of the main jobs to be applied in Iraqi ports, through which it is possible to distinguish between three jobs that are divided into two groups of (Transportation of containers and storage of (goods) as well as repair services that include disinfection, maintenance of canals and docks, repair of ships and repair of containers)
- The second: complementary services that include value-added services and

are divided into (general logistical services, which are activities such as storage, loading and unloading, and value-added logistical services such as (activities)).

The main functions of the ports can be summarized in three main points:

1. **Ownership:** This job requires performing the tasks of maintaining the development of port facilities, planning and implementing port policies and development strategies, supervising the implementation of civil engineering works, establishing and maintaining canals, breakwaters and docks, and providing land roads and railways port connection
2. **Organization** It consists of a set of responsibilities imposed by national legislation, as this function includes securing the navigational entrances to the port, developing and maintaining them, collecting due fees, providing guidance services and managing the passage of ships to ensure their safety and protect the environment in a way that guarantees the prevention of any pollution.
3. **Operation** This job is concerned with the in-kind transportation of goods and people through the means of maritime transport, which includes loading and unloading operations, storage and packaging, marine supplies and free zone activities. Its activities may extend to include pilotage and ship repair.

Second: Motives for partnership in the infrastructure of Iraqi ports and the economic importance of investment in ports

The reasons and motives that justify the adoption of partnership methods in the Iraqi ports sector are concentrated in the low operating efficiency in the Iraqi ports, the raising of operating costs, the decrease in productivity and thus the high prices of services, especially if it takes into account the presence of excess labor in the ports, the increase in the cost of imports and the inability of the port to compete and enter into global market. In view of the technological changes witnessed in shipbuilding operations and cargo

handling equipment, the basic principle in investment decisions is their sufficient flexibility so that the port can respond to any changes, as well as the compatibility of investment decisions with modern trends in shipbuilding and the requirements of basic marine transport facilities to complete the transport cycle in general, i.e. the most important What is referred to in the investment question here is how

The division of investments accordingly should include the following:

1. The required investment within the port space, for example, the required investments in the basic construction. It includes:
 - A. Investing in ports of entry, port channels and breakwaters.
 - B. Port infrastructure investments such as berths, marinas and pilotage activities.
 - C. Superstructure investments such as equipment and equipment required to operate the port
2. Investing in technological infrastructures, including:
 - A. Establishing communication networks.
 - B. Information Systems.
 - C. Establishment of free zones.
 - D. Establish activities that generate added value.
3. Investment in the back of the port, including:
 - A. Introducing multiple transportation systems.
 - B. Expansion of transport networks between the port and the back.

Investment in ports is a major incentive to achieve growth at the level of the economy and at the level of the maritime transport sector because of the growth it generates in:

1. The growth of foreign exchange rates and thus the growth of the volume of maritime trade as well as the growth of all activities related to the maritime transport sector and the growth of areas called the port hinterland.
2. In addition, it may lead to the presence of a commercial transport fleet that contributes to the provision of logistic services.

3. The most important goal of investment in the port is to reduce the total costs of transporting goods, and this leads to an increase in the volume of trade, which contributes to achieving social welfare, which is economically represented by an increase in consumer surplus.

Accordingly, we find that whenever the investment is said, the investment is strictly subject, whenever it helps to straighten the economy at the country level, such as this type of marine transport and port projects.

Third: The importance of partnership and levels of competition in Iraqi ports (Abu Maash, 2011: 181-218):

1. The importance of partnership in Iraqi ports:

One of the most important reasons behind adopting partnership methods in Iraqi ports is

Table (1): Partnership objectives in Iraqi ports

Objectives	Increase efficiency and reduce costs	Trade expansion	Reduce investment costs	Obtain management knowledge	Other goals
The ratio	50%	27%	23%	15%	21%

Cited from : Baird, Alfred J. (2002), Privatization Trends at the World's Top 100 Container Ports, international Association for Maritime Economists Annual conference Proceedings.

2. Levels of competition in Iraqi ports:
The levels of competition in Iraqi ports differ according to one port and differ from one port to another. For example, at the level of ports, their competitiveness is linked to several levels, including competition between port operators, competition between port operators, and competition between port clusters. The factors affecting port competitiveness vary from one level to another. As the competitiveness of the operators of one port is determined mainly on the factors of production, labor, capital, and the use of modern technologies, while the rest of the levels of competition were classified according to elements that converge in their characteristics and advantages, as in the following factors:

- A. Geographical location.
- B. Available infrastructure.

to increase efficiency, expand trade, reduce investment costs and obtain administrative knowledge, and other goals that include developing private sector participation by increasing efficiency in its broad sense, as it leads to a reduction in current and investment costs. To increase management knowledge and technology transfer by other methods that reduce service prices, increase competitiveness and expand the framework of trade. It is noted from Table (1) that the sum of percentages is greater than (100), as the participants can choose more than one target, according to the survey conducted by (Napier University) British on the largest hundred global container terminals.

The objectives of the partnership can be listed as follows:

C. The level and capacity of supportive industries linked to successful policies.

Despite the multiplicity of methods and means that work to measure the rates and productivity of the port through financial or operational indicators, it is not possible to limit one factor or several factors, and the competition between multiple ports is governed by different operating conditions, as the competition of ports is affected by several variables, including the cost of restoration Shipping, handling fees, storage fees, the level of management and expertise possessed by port operators, and the extent to which value-added activities can be generated. The levels of competition between ports can be clarified through the following scenarios:

- The first scenario: competition at the level of contractors of one port, as competition takes place through the transport chain system and the extent of the volume of

- goods movement. By port, the volume of flexible handling by the port authority. Market competition within a single port creates economic incentives to build operational entities that work efficiently, as well as preventing the emergence of a monopolistic market due to the accurate division of privileges within the port, as well as reducing the cost of providing those services and raising their efficiency.
- The second scenario: competition between operators of several ports, and this scenario arises From competition between several operators, however, ports that do not cover the same area cannot be considered competition, due to its geographical distance, and this gives an indication that there are no competitors outside the scope of the port.
 - The third scenario: competition between port clusters, which means competition between port authorities, as the port authority is seen as legislative agencies that do not affect the production process and the creation of competitive capabilities, as the competitive advantage depends on the reputation of the port and the level of technology used, and therefore the ports and the private sector must be encouraged to Applying advanced concepts, supporting areas of increasing competitive strength and its ability to attract customers, achieve commercial orientation, and provide value-added services, for example, establishing integrated and advanced information technology networks, increasing freight rates, providing warehousing and logistics services, and distribution services. There are other factors that play a role in achieving The distinction of the port is that it does not depend on market conditions only, but rather on the mutual relations

between individuals and institutions and the prevailing economic climate.

3. Partnership orientation in Iraqi ports (Abu Maash, 2011: 219-220):

The orientations of the tasks of the Iraqi ports included the analysis of value-added services, as it was found that they were divided into two parts, namely:

- A. Value-added logistical services that include the following two types:
 - General logistical services, including freight and unloading services, and filling containers for storage and distribution. Traditional services do not directly affect the nature of the product.
 - Logistics chain integration services, which are unconventional and more complex services than general logistics services, as they are implemented by a third party for the benefit of industrial companies, and are represented by assembly, quality control, and packaging. Among these products that benefit from these services are electrical appliances, food and pharmaceutical industries.
- B. Value-added facilities, including facilities for repairing and maintaining containers, and cleaning facilities. The existence of such facilities in Iraqi ports depends on the type of goods handled and the volume of trading. This is to provide the economic basis for the provision of facilities. For example, the presence of a relatively large volume of movement of goods placed in containers compared to the rest of other goods gives the economic basis for providing facilities for repairing and cleaning containers. The following is Figure (1), which shows the general framework for value-added services for Iraqi ports.

Figure (1) The general framework diagram for value-added services in Iraqi ports

Value added services		
Value added facilities	Logistics value added services	
Waiting facilities	Integration services Logistics chain	General logistics services
Weight facilities	Quality control	Loading and unloading of

		goods
Customs facilities	Refill and encapsulation	Unpacking and filling containers
Repair facilities hardware	Tag paste	Unpacking and filling containers
Repair facilities Container maintenance	Addition adjustment	Merchandise storage
Cleaning facilities Containers	Compilation	General stores Specialized
Saving facilities Cisterns	The exams	Distribution centers Cargo clearance
Trailer rental facilities	Reform	
Information provision facilities	Twirling	
Provision of services Insurance		
Hotels and restaurants		

Source: World bank, port reform tool kit (2001), module (3), p.27.

The fourth requirement:

The future vision of the great port of Faw.

The project of the great port of Faw is one of the giant strategic projects in Iraq, which connects the continents of Asia and the continent of Europe without passing through the Suez Canal or the Cape of Good Hope. Special plans, studies and research were prepared in it by the (Hanna Sheikh Holding Company, 2006), and was approved in 2009 by the General Secretariat of the Council of Ministers, at an estimated cost of (4.4) billion euros (Iraqi Council of Representatives, 2019: 2). The project extends over a distance of more than (22) kilometers in Ras Al-Bishah from the Al-Faw region to the last land in Iraqi territory and provides a draft suitable for the largest

ships and giant oil tankers. Specialized and service berths, residential complexes, warehouses, free trade areas, and overlooking depths of more than (28) meters, which are depths that provide a comfortable draft for the largest ships and giant oil tankers. It consists of (50) berths that include areas for unloading and shipping, warehouses, administrative facilities, and complexes. The length of the berths at Al-Faw Port ranges between (10-40) kilometers, and it is connected to railway lines, a network of highways, selected free trade zones, and the establishment of an international airport in the future (Imran & Khalaf, 2012: 251). As shown in charts (2) and (3) prepared by the British company (Hopco) and the Italian consulting company (Technical).

Figure (2) an illustrative diagram of the great port of Faw



Source: The General Company for Iraqi Ports - Basra Prepared by the British Herbcoco Company and submitted to Hanna Al-Sheikh Company.

Figure (3) The plan of the great port of Faw and its connection to the navigational channel in the deep regional waters



Source: The General Company for Iraqi Ports - Basra, the Italian Consulting Company (Technical) plan.

First: The strategic objective of establishing the Al-Faw Grand Port Project: (Al-Musawi, 2006: 7)

1. Supporting and serving the Iraqi national economy through the establishment of a large free international port capable of

receiving ships with cargoes of up to (120) thousand tons.

2. Encouraging and attracting transit trade across Iraq through shifting the maritime transport movement from northern, central and southern Europe to using the method of

multiple modes of transport from Europe to Iraq.

3. Creating a comprehensive development situation in the southern region of Iraq in particular by reducing idle hands with various specializations.
4. Getting rid of rentier and single resource to move to diversification.
5. Raising the efficiency of Iraqi ports in order to provide the best services required for foreign trade at the lowest possible cost, while ensuring the provision of the infrastructure required to provide this service for foreign trade, and thus this will also increase the efficiency of the labor force.
6. Encouraging the private sector to provide marine transport services in this port

Second: The reasons for the establishment of the port of Al-Faw and Al-Kabir:

There are several reasons that led to the establishment of a new port, including:

1. The volume of navigation traffic: three time periods have been identified, namely 2018, 2028, and 2038). Dividing the volume of navigation traffic into three types of containers, dry cargo, grain cargo, and ship dimensions). In view of table (2), it is noted that the navigation traffic expected to begin in the large port of Faw is (24) million tons in 2018, and dry cargo is (24) million tons. These large cargoes cannot be accommodated by the current Iraqi ports, as the large port of Faw will receive (70) million tons and dry loads of up to 44 million tons by 2038.
2. There are high revenues achieved for the Iraqi economy.
3. The development of the activities of the stevedoring department

Table (2): Forecasts of navigation traffic in relation to the type of handling and by years

Year	Container (million tons)	Dry loads (million tons)
2018	24	24
2028	40	32
2038	70	44

Source: Ministry of Transport, General Company for Iraqi Ports, Department of Operations, Statistics, Basra.

Third: The advantages resulting from the establishment of the port: (Imran & Khalaf, 2012: 254)

1. Facing future requirements by increasing Iraq's export and import capacity.
2. Exploiting Iraq's untapped natural resources
3. Increasing Iraq's ability to export crude oil, it is estimated that it will reach (5.4) million barrels per day in the next few years and is expected to reach (5.6) million barrels per day by 2025 and (7) million barrels per day by 2035, and (8.5) million barrels per day by the year 2055.
4. Developing industries in the region and developing the city of Al-Faw and Umm Qasr
5. Developing tourist and entertainment areas and building hotels.
6. Developing neighboring areas and their infrastructure.
7. Develop a free trade area.

Fourth: The strategic importance of the Al-Faw Grand Port Project:

The Al-Faw Grand Port project is of great importance: A relatively large strategy at the local, regional and international levels, and it can be explained as follows:

1. The local importance at the local level will benefit the transport sector in Iraq through the process of transporting goods internally, and this will lead to obtaining the benefits of transit, and linking it to a network of roads and railways. In addition to developing maritime transport and the oil and natural gas refining industry, as well as eliminating unemployment, not only in Basra, but also in southern Iraq. This project will provide job opportunities for more than five thousand workers in various specializations, and will help Iraq to gradually dispense with the ports of other countries. Neighborhood, and gives a competitive advantage in favor of Iraqi ports and adds advanced expertise,

especially in the technical, electronic and administrative fields (Mustafa, 2011: 48).

2. Regional importance: The large port of Faw is an important economic and commercial window in the Gulf region, as it will be able to meet the requirements of the present and in the future. Kuwait is trying to establish a railway project that connects the city of Kuwait, Baghdad and the port of Umm Qasr, and it signed an agreement with Iraq in 1978 as part of an integrated regional project linking a number of countries in the region. Iraq is linked to the European iron network in the future, and the Kuwaiti project is linked internally to a number of projects, the most prominent of which is the expansion and modernization of Kuwait's ports, as well as the establishment of an international port on Bubiyan Island (Mubarak Port, which is intended to link Iraq with it, which leaves negative effects on maritime traffic (Nasser, 2005: 7). It is linked and complementary to the ports of Dubai and Khor Fakkan in the UAE, and Salalah in Oman. The project also attracted interest from Turkey due to its economic and political gains, so that Basra will be linked to Turkey and from there to Europe. The project will also bring the distance between East Asia and Europe closer, and it will connect countries Gulf with the Arab with Central Asia through Turkey.
3. International importance: The location that Iraq enjoys in relation to the globe represents a privileged location, and a middle ground between Central and Northern Europe and Southeast Asia. The establishment of a port and a free zone in this part of the world has a direct impact on the economy of international transport in terms of cost and time, as it will be possible to transport Goods by land across Europe by trains and trucks, then through Iraq through the railway line and the express line (Baghdad Turkey), linking it to the express line (Baghdad - Safwan) and the establishment of a modern transport network linking it to the port of Faw and the free zone, and the goods arriving at the

port are transported to complete their journey to the southeast Asia (Mu'nis, 2014: 71).

The aforementioned multimodal transport process saves time ranging between (20-25) days, for the sea voyage for the distance from northern Europe to southeast Asia through the Suez Canal, and this means saving billions of dollars on the global transport economy and international carriers, and this leads to lower costs Transport of goods and commodities, as it is one of the justifications for establishing the port and the dry canal that shortens distances (Al-Samarrai: 2012: 418).

Fifth: Challenges Facing the Implementation of the Great Port of Faw Project:

There are a number of challenges facing the implementation of the Great Port of Faw project are represented in the following: (Mu'nis, 2014: 73)

1. The natural challenges are represented by the narrow Iraqi coasts and their overlap with neighboring countries, and the creeping of the Iranian borders towards the regional waters due to the erosion and sediment factor, in addition to the bad weather conditions that impede the movement of maritime navigation, as the pumping of Iraqi oil often stops because of that for several days.
2. Human challenges: It is divided into:
 - A. Internal challenges:
 1. Lack of unified will to implement the project at the local level.
 2. Lack of the security and legal environment necessary for its success.
 3. Administrative and financial corruption.
 4. The lack of an efficient transport network commensurate with the size of the project.
 5. Low investment spending for this project.
 - B. External challenges:
 1. Neighboring countries' sense of harm.
 2. The turbulent political situation in the region.

- Hesitation to invest by companies due to lack of confidence in the economic system.

Sixth: Al-Faw Grand Port Development Program

The development plan for the new port of Al-Faw aims to be completed in 2038. A development plan is proposed in three stages: the first stage until 2018, the second stage until 2028, and the last stage until 2038. The facilities that will be developed are listed in Table (3). shown below and in detail:

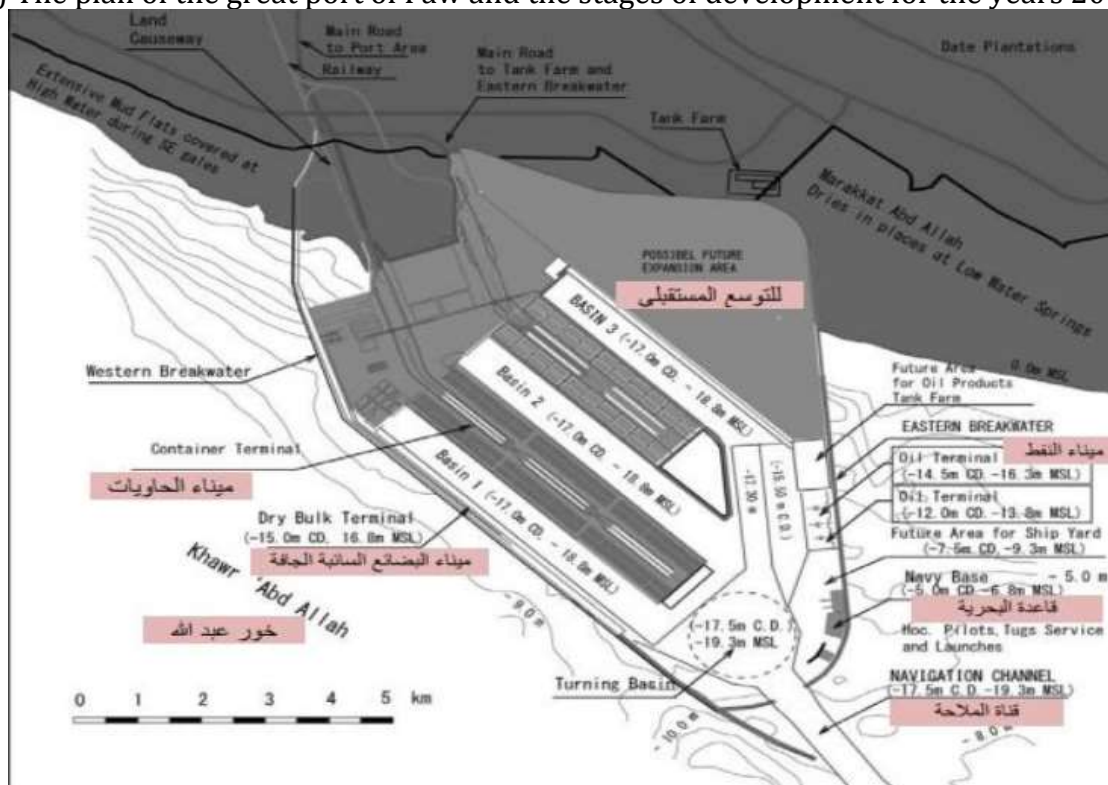
Table (3): Planned facilities and stages of development, respectively, for Al Faw Port

Clause	Unit	The first stage	The second stage	The final stage
Station	Meter	3900	3100	7000

wharf containers				
The station is a pier bulk goods	Meter	2000	1500	3500
Container yard	Hectare	120	80	200
Bulk cargo yard	Hectare	40	20	60
Paved road and tracks iron and building	Hectare	60	40	100
Soles for wheat	1000 m ²	150	50	200

Source: Feasibility Study for the New Grand Port of Basra, Volume (1) 2008.

Figure (4) The plan of the great port of Faw and the stages of development for the years 2018 to 2038



Source: (GCPI), the development plan for the new port of Faw, (the General Company for Iraqi Ports) in the “Infrastructure” conference for Iraq 2013.

The fifth requirement:

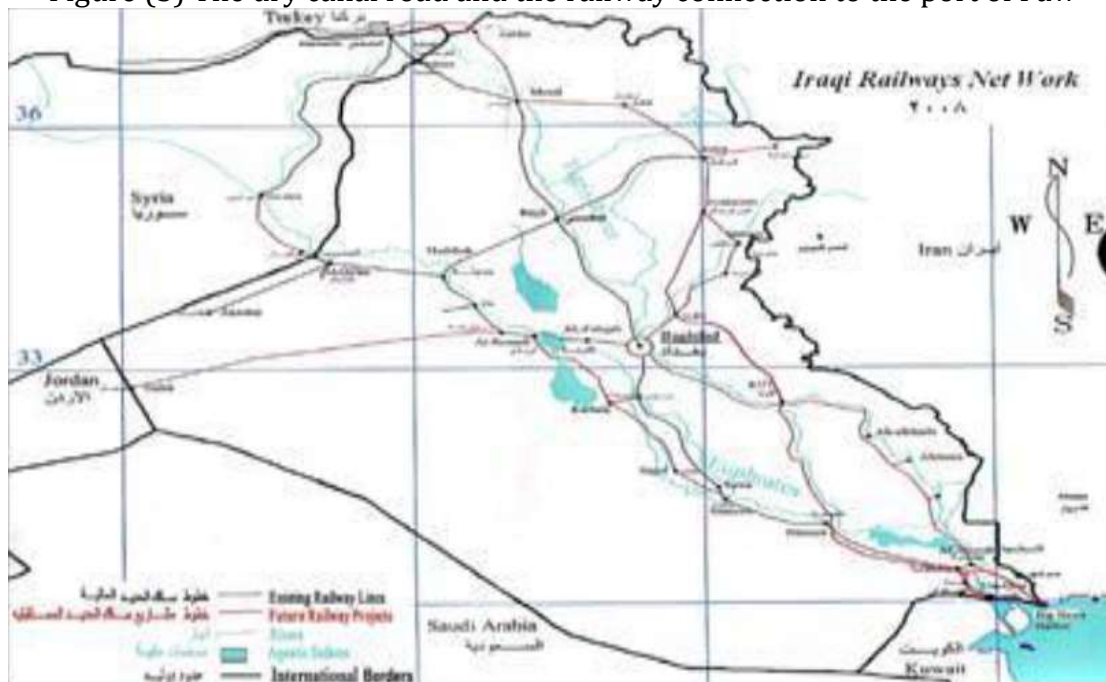
The dry canal and the railway link to the great port of Faw (Al-Bannai, N.Y: 2-3)

The term “dry canal” means a project to establish a network of railways and highways

linking the large port of Faw, which is to be established, with railways and roads in Europe through Turkish territory, with a length of approximately 1200 km. media as a parallel, competing, or even alternative path. Figure (5)

shows the railway link through the great port of Faw and through Turkey to central Europe

Figure (5) The dry canal road and the railway connection to the port of Faw



Source: Republic of Iraq, Ministry of Transport, Planning and Follow-up Department, 2012.

The beginnings of the dry canal idea go back to the beginning of the last century. On July 27, 1911 specifically, the German chief of works in Baghdad held a ceremony marking the laying of the foundation stone for the project, which was known as the Three B's (B.B.B. Berlin, Byzantium, Baghdad). The Baghdad-Basra railway had not yet been established.

After which the idea of linking The Mediterranean Sea in the Arabian Gulf with a railway in 1930, a project proposed by one of the Indian Railways employees at the time. Numerous proposals for railway projects across Iraqi territory also appeared, but they quickly collapsed. It is worth noting that the competition between Germany and Britain was great in order to establish railway lines in Iraq. Then the idea of establishing a dry canal was raised seriously. When the Suez Canal was closed for a period of nearly ten years (1967-1975), thinking began in a new way about the necessity of establishing railway lines between the Syrian port of Latakia on the Mediterranean coasts and Baghdad to reach the Gulf ports.

The project was not successful for internal and regional political reasons at the time, and the Dry Canal project was not the only project that

was proposed to avoid passing through the Suez Canal. There is the Iranian-Russian project to find a commercial corridor (north-south) that connects India to Russia, passing through its territory, and says that it is a good alternative to the Egyptian Suez Canal. This line starts from India and reaches the port of Chabahar, "which is located in southern Iran on the Indian Ocean, then ships the goods by land to the port of Bandar Anzali in northern Iran on the coast of the Caspian Sea, and follows that, transporting the goods by sea to Astrakhan in southwestern Russia and from there to northern Russia or to European countries through railways, and calls arose again to revive the dry canal project after 2003, not as a promising economic project, but as a savior and fateful one, with a wealth comparable to the oil wealth itself.

First: the feasibility of the dry canal from the point of view of the user and the beneficiary Like other business projects, the dry canal project needs an economic feasibility study to justify investment in it. Feasibility studies are based on studying the technical, investment and marketing aspects. If technical and financing challenges are possible, the market

challenge remains the most important. Determine and study the size of the target market, market sizes, and the target segment, segmentation. Studying purchasing habits, understanding the expectations of the demand for the project's outputs, predicting the market share, determining the degree of consumer or user awareness of the project's outputs, as well as anticipating alternative options and the degree of their impact on the level of demand.

There are other factors affecting the feasibility study of the project, if we take the example of secondary ports as typical examples of such formations. It is important to assess the impact of technological factors (eg carriers, infrastructure, industry changes) and regional factors (eg, geographic and commercial proximity, socio-economic developments) on shaping shipping networks, port hierarchies, and maritime zones (Ducruet, 2021).

The port of departure and destination play a role. It is evident in the route planning, as well as the required arrival time for container ships, but perhaps the biggest factor is the cost, which is a function of a number of variables such as time charter prices, fuel type, and waiting costs, in addition to the time factor, which is a function of the route length, and the speed of handling services. loading and unloading), port or strait administrative procedures.

Factors involved in the port selection process include:

- Port infrastructure, its connection to railways and internal roads, and handling stations.
- Digital infrastructures for shipping, customs clearance and shipment tracking.
- Administrative capacity, which ensures the flow and accuracy of work, and the possibility of tracking.
- Road security
- Insurance

Routing containers through a multi-stop route or directly to their destination also depends on cargo flows, port charges, efficiency, feeder port locations, handling times (loading and unloading) etc. The results of these decisions directly affect the operational effectiveness of container transport companies and the quality

of service provided to shippers. Because container carriers operate in an increasingly competitive and market-oriented environment, they aim not only to reduce shipping costs, but also to enhance their services in order to increase their competitiveness (Hsua, 2007).

Second: The role of the dry canal in the Faw Grand Port project

The Dry Canal consists of two main sides: railways and highways:

The first side: includes a railway, which is expected to reach (8000) km, starting from the port of Faw towards Basra and extending in the center of Iraq all the way to the west, where it branches into two main sides, one of them towards the border city of Al-Qaim. And then to Syria and the port of Latakia and the other towards Turkey and the port Mersin city (Al-Shammari, 2020).

This aspect, despite its economic importance, which is characterized by strategic dimensions, as it represents low transportation costs in exchange for a larger load capacity and reducing pressure on highways, but the railways have long suffered from great neglect and erosion, and they are not fit to perform this function unless they are rehabilitated and built. And extending new lines, and this requires the involvement of foreign direct investment, due to its experience and financial and technological capabilities in this field, and China may be the best investor to play this role, especially as it is the owner of the Silk Road project that connects the East with the West through Iraq.

The second side: As for the land roads, they are new roads in addition to the maintenance of the existing roads, including the international highway, which must bear its capacity (8000) trucks per day, or four million cars annually, and this depends on the amount of foreign investments and government spending to establish those roads (Hassan, 2011: 153).

The function of the dry canal is to transform Iraq into a regional and international link for trade routes between East and West, back and forth, in addition to providing job opportunities for approximately (70) thousand jobs,

including transportation by trucks, and saving nearly 7 billion dollars annually (Sami, 2020). That is, the revenues of the port of Faw and the Dry Canal will reach (15) billion dollars annually, which is equivalent to nearly a third of oil revenues, in addition to that it will achieve development activity for the Iraqi economy and reduce the burden on other Iraqi ports, and this gives room for the purposes of its maintenance.

Third: Transport routes to Iraq:

Main routes for imported goods: Transport infrastructures such as roads and railways have been developed and a network of links has been formed between Iraq and neighboring countries. The following three paths for transporting imported goods to Iraq were considered as the main paths to be distributed throughout the country:

The first track: The Syrian and Turkish paths (the Mediterranean path). Imported goods are transported to the central and northern regions by trucks mainly from ports in Syria and Turkey and Jordan. Most of the imported goods are transported to the northern province from the port in Turkey (the port of Mersin) by trucks.

The second track: the port of Aqaba in Jordan (the Red Sea route). Goods are transported to the northern parts of the city of Baghdad and the central region by trucks from the port of Aqaba in Jordan, as well as from other ports in Syria (the ports of Tartous and Latakia).

The third track: Ports in Iraq (Umm Qasr Port and Khor Al-Zubayr Port) The ports of Umm Qasr and Khor Al-Zubayr were used for goods imported to the southern parts of the country, and they were transported mainly by trucks in the port of Aqaba in Jordan and ports in Kuwait when they could not recover to At full capacity at the moment, most of the goods are imported through its ports Iraq because the port of Umm Qasr has almost recovered.

There are 3,000 trucks per month that come from Iraq to the port of Aqaba, and 60% of the trucks transport goods to Iraq. According to the Aqaba Container Terminal, between 20% and 30% of the container goods that are unloaded in the port of Aqaba are destined for Iraq, and

the volumes of handling to Iraq have increased recently Because of the civil war in Syria. Between 15% and approximately 20% of the goods destined for Iraq are transported through the ports in Syria, before the war (The General Company for Iraqi Ports, 2015: 3).

Fourth: the economic importance of the Dry Canal in Iraq:

The dry channel can be described as a facility located inside the country and far from the sea that facilitates multimodal transport operations or contributes to achieving the required logistical concepts to prevent bagging of goods and works to achieve added value. Transportation operations have become more complicated with the developments in transportation processes, including the use of technology, electronic exchange, delivery on time, and the logistical revolution, which has had a major role in reducing costs and time in transporting goods. With this development, the economic importance of dry channels appears, which can be summarized as follows, indicating the importance Economic dry canal in Iraq.

1. It will facilitate transportation at the local and international levels, and this will be reflected in raising transportation efficiency, which will result in lower costs and less time required for transportation
2. It will facilitate the raising of the efficiency of international trade, and thus increase the volume of inter-trade exchange with the neighboring countries of Iraq.
3. Raising the efficiency of production, whether agricultural or industrial, while increasing the degree of competition for locally produced goods and services by reducing the logistical costs of products.
4. Reducing operating costs by controlling labor costs, which will increase their efficiency through dealing with modern, technologically advanced equipment, which leads to higher labor productivity and thus lower costs.
5. Achieving the competitive advantage of the port of Faw by linking the port with its back areas through a modern network of roads, whether land, rail or river, with linking it to a modern communications network, and this will lead to work to facilitate the entry

and exit of ships on the port docks as well as ease of entry And the exit of goods to and from the port.

6. The dry canal will contribute and help in establishing industrial activities in the back of the port that may be related to the manufacture of ships or their repair or the establishment of industries related to goods, which helps to create added value through the diversification of activities and will also be a catalyst for diversifying income.
7. It will work to reduce transportation time and thus lower the total costs required to transport goods.
8. It will contribute to the transportation of large quantities of goods and also this is a catalyst on the line of transportation costs
9. It will work to provide goods in the market on an ongoing basis and respond to the needs of consumers.
10. It can reduce the process of storing goods and thus will achieve abundance in production processes.

According to the foregoing, we see that one of the conditions for the success of the dry channel is the need for the existence of an infrastructure represented in the provision of roads, bridges, communications, electricity, banks and insurance companies, because the provision of such conditions will increase the effectiveness of the port of Faw's competition with other neighboring ports, in addition to that administrative, governmental and customs procedures Easy, accurate and fast so as not to be a cause for delaying the transport of goods. In addition, the administration supervising the dry canal should be aware of the requirements of modern transport and be at the level that qualifies them to deal with giant transport companies and be at a level of skill in using

their material and human resources in the most efficient use possible. .

Fifth: Indicators of Iraqi land transport through the Dry Canal for the period (2015-2020):

Land transport is an important means of transport, whether it is for transporting people or goods, and dependence on it increases due to its high flexibility and rapid response, as this sector can meet various needs and requirements between different regions of countries, so most countries tended to develop and modernize their means of land transport. As land transport is divided into transport by rail and transport by road and is divided as follows:

1. Transportation by rail.
2. Road transport includes:
 - A. The General Company for Land Transport.
 - B. The General Company for Transporting Passengers and Delegations.

The main indicators of the developments of each formation will be clarified through the following:

First: Railways:

Transportation by railways is one of the important and essential aspects in the field of land transport that achieves the conditions of transport safely and at the lowest cost for passengers and goods over long distances. Iraq is one of the countries that used the railway system, as The first train has run since June 1914, and Iraq has a railway network that covers large parts of it (Ministry of Planning, Economic Report for the period 2015-2018: 137). The main indicators of railway activity will be clarified for the period from 2015 to 2020, as shown in Table (4).

Table (4) The main indicators of railway activity for the period (2015-2020)

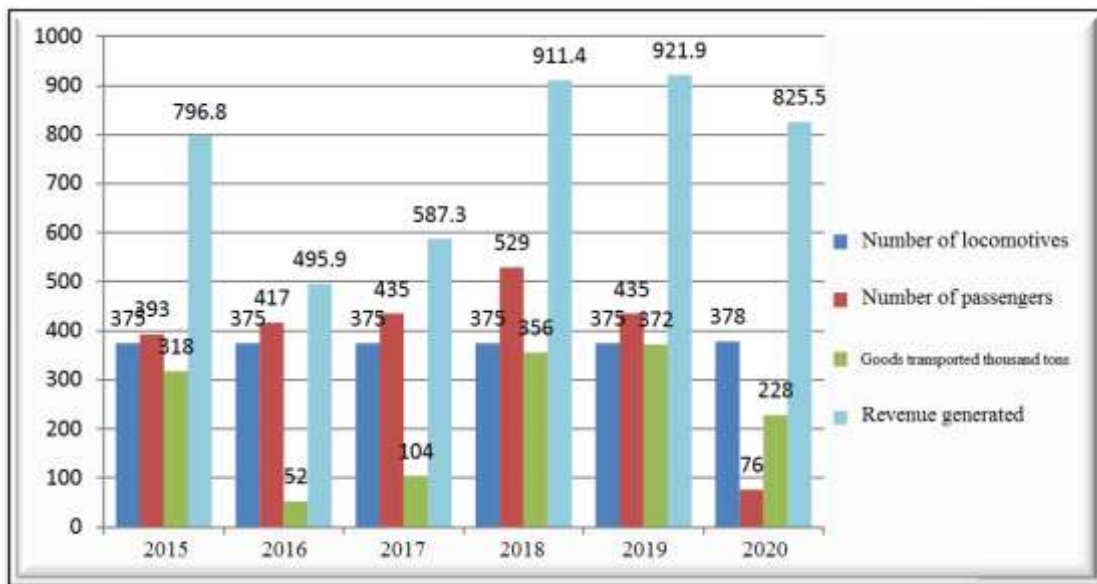
details	Measuring unit	2015	2016	2017	2018	2019	2020	Growth rate compound
Measuring unit	km	2890	2893	2893	2893	2893	2958	-7.49
number of locomotives	Much locomotive	375	375	375	375	375	378	0.16
The number of paid passengers	Thousand passengers	393	417	435	529	435	76	-28.01

The number of kilometers traveled	Million traveller/km	139	146	169	178	164	28	-27.42
Average passenger fare	Thousand dinars	11.8	9.9	9.9	8.5	9.2	10.8	-1.76
Freight transported goods	Thousand tons	318	52	104	356	372	228	-6.44
Revenue generated from Transportation of passengers and goods	Million Dinar	796.8	495.9	587.3	911.4	921.9	825.5	0.71

The table is from the researcher’s work, based on the source:

- Ministry of Transport, Follow-up and Statistics Department, annual report for the period (2015-2020).
- Ministry of Planning, Central Statistical Organization, Water Transport Statistics Report for the period (2015-2020).

Diagram (1): Revenues generated from the transportation of passengers and goods for the period from (2015-2020)



Source: Diagram is made by the researcher based on the annual revenues in Table (4)

Looking at the main indicators shown in Table (4) and Chart (1) of the railway activity in Iraq, it is noted that there are many variables from 2015 to 2020.) to transport a number of passengers amounting to (393) thousand passengers, with an average transportation fare of up to (11.8) thousand dinars, and a verified card from the transportation of passengers through the distances traveled within the limits of (139) million passengers, in

order to achieve revenues from the process of transporting passengers and goods amounting to (7968) million Dinars, as it is a good indicator during that period. As for the year 2016, the length of the railways reached (2893) km, and the number of locomotives reached (375) to transport passengers, with an average of (417) thousand passengers, with an average transportation fare of (99) thousand dinars. And the transportation capacity is achieved in

the travel kilometers traveled by the limits of (146) million passengers km, and the amount of goods transported was about (52) thousand tons, to achieve revenues amounting to (4959 million dinars). As for the year 2017, it witnessed an increase in some indicators, and the lengths of the railways remained the same (2893). (km) and the number of locomotives (375) to transport (435) thousand passengers, with an average transportation fare of (99 thousand dinars, and a verified card from the process of transporting passengers amounted to (169) million passengers / km, in addition to transporting goods that amounted to (104) thousand tons, to achieve revenues amounting to (5873) million dinars.

In 2018, the railway activity witnessed a tangible development, which is shown by some of its indicators. In particular, the increase in the number of passengers to reach (529) thousand passengers, with an average transportation fare of (8.2) thousand dinars, to achieve revenues of about (4470) million dinars, and a verified transportation card of travel kilometers of up to (178) million passengers / km. As for the transported goods, it amounted to (356)) thousand tons to achieve revenues of up to (9114) million dinars. The reason for the increase in revenues is due to the increase in the number of passengers and goods due to the operation of new trains to transport goods and people, as the company was supported by introducing the new Chinese train (DUM) into service. In addition to the improvement of the security situation in some governorates of the country, and in 2019, the length of the railways remained unchanged, amounting to (2893) km, and the number of locomotives reached (375) to transport passengers, with an amount of (435) thousand passengers, and an average transportation fare of (9.2) thousand. Dinars, and a transport card verified by the travel kilometers traveled at the limit of (164) million passengers / km, and the amount of goods transported at the limit of (372) thousand tons, to achieve revenues amounting to (9219) million dinars. 1985) km. As for the locomotives, their number reached (378) locomotives to transport passengers, with an

average of (76) thousand passengers, with an average transportation fare of (108) thousand dinars, and a transport card verified by the travel kilometers traveled, up to (28) million passengers km, and the amount of goods transported was up to (228) One thousand tons, to achieve revenues amounting to (8255) million dinars. In 2020, revenues recorded a slight increase, with a compound growth rate of (0.71%).

The reason for this slight increase is due to the global crisis represented by the Corona pandemic, in addition to the decline in trade exchange and the suspension of most of the facilities of this sector. From the foregoing, it is clear that transportation by railways in Iraq is relatively ineffective, and this is due to a number of reasons, including the age of the network, in the absence of periodic and continuous maintenance by solid companies in this field. This negatively affected the decrease in the operational capacity of the railway network due to the lack of modernization of the network with modern transport management methods, which requires the expansion of the railway transport network and the improvement of its specifications to increase its capacity for the purpose of keeping pace with the rail link plans and the expansion of the dry canal through the introduction of modern methods owned by the sector. Local or foreign private sector, which would contribute to reducing pressure on highways.

Second: Transportation on land roads

Land transport is divided into the General Company for Land Transport and the General Company for Transport of Passengers and Delegations, where the light will be highlighted on the General Company for Land Transport, the number of trucks, the capacity to accommodate, and whether there is a possibility to develop these roads and the extent of their impact on the Dry Canal.

1. The General Company for Land Transport:

It is one of the indicators that reflect the qualitative and financial activity of the company General land transport, which are shown through the data of Table (5) and as follows:

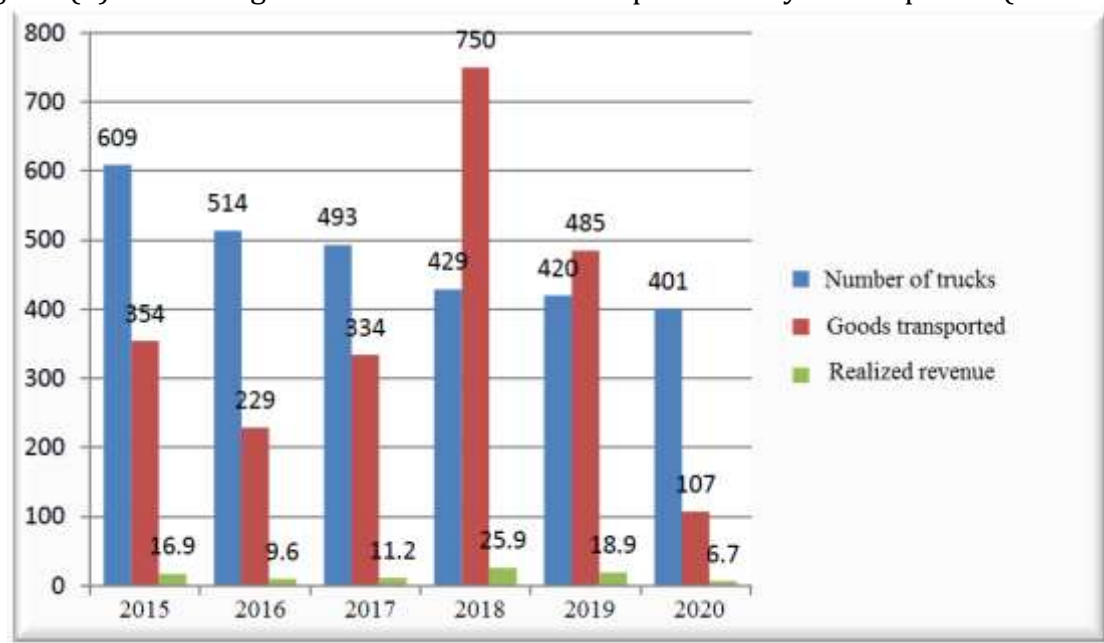
Table (5) Analytical indicators of the activity of the General Land Transport Company for the period (2015-2020)

Details	Measuring unit	2015	2016	2017	2018	2019	2020	Growth rate Compound
Number of trucks	Number	609	514	493	429	420	401	-8.02
The amount of goods transported	Thousand tons	354	299	334	750	485	107	-21.28
Realized revenue	Million dinars	16.9	9.6	11.2	25.9	18.9	6.7	-16.89
The number of employees	Number	3362	3161	2707	2313	2143	1905	-10.32

The table is from the researcher's work, depending on the source:

- The Ministry of Transport, Follow-up and Statistics Department, annual report for the period (2015-2020).
- Ministry of Planning, Central Statistical Organization, Water Transport Statistics Report for the period (2015-2020).

Diagram (2) revenues generated for the land transport activity for the period (2015-2020)



Source: Chart made by the researcher based on the annual revenues in Table (5).

In view of the main indicators shown in Table (5) and Diagram (2) of the activity of the General Company for Land Transport in Iraq, note that the number of operating trucks owned by the company in 2015 amounted to (609) trucks to transport an amount of goods amounting to (354) thousand tons and to achieve revenues amounting to (16.9) million dinars. In 2016, the number of trucks

decreased to (514) trucks, and this is due to the departure of some of them from service to transport an amount of goods amounting to (299) thousand tons and to achieve revenues amounting to (9.6) million dinars.

In 2017, the number of trucks decreased to (493) trucks for the same reason, to transport an amount of goods amounting to (334) thousand tons, and to achieve revenues

amounting to (1102) million dinars. (750) thousand tons, to achieve revenues amounting to (25.9) million dinars, and in 2019, the number of trucks reached (420) to transport a quantity of goods amounting to (485) thousand tons, and to achieve revenues amounting to (18.9) million dinars.

In 2020, most of the indicators decreased due to the global crisis of the Corona pandemic, the lack of trade exchange, and the suspension of most of the means of land transport, as the number of trucks reached (401) to transport a quantity of goods amounting to (107) thousand tons, and to achieve revenues amounting to (6.75) million dinars, to record a decrease in revenue. Compound growth rate of (16.89) for revenues.

With regard to the number of workers, their number decreased during the years from 2015 to 2020 in the company due to the referral of workers to retirement, death, or transfer outside the company. Production and not replacing them with new trucks, which forces the company to contract with truck drivers from the private sector to meet its special shipping requirements, in addition to stopping some lines due to poor security conditions, and here comes the role of the private sector in the land transport process, which requires encouraging the establishment of partnerships with the private sector. To transport goods and deliver them to their destination within a specified period of time and at the lowest costs to meet the growing demand and achieve partnership between public and private sectors. From what was reported, it became clear that the implementation of the great port of Faw project faces internal and external challenges, which hinders the process of its implementation. As for the level of the dry channel in Iraq, it is represented in two directions, which is the development of rail and land transport, but it also suffers from challenges represented by security conditions and the inability to rehabilitate the main lines due to The high cost of re-maintaining them, and this requires the involvement of the private sector within the partnership frameworks in force globally, including the (bot) system, which was adopted through the

joint operation department in the Iraqi Ministry of Transport, the General Company for Iraqi Ports, which had a positive impact on the high rates of handling and the development and rehabilitation of Iraqi ports. The system helps finance infrastructure projects for the rehabilitation and maintenance of such dilapidated networks or road developments and new networks.

Conclusion:

The establishment of the port of Faw is one of the main pillars to support the national economy through the expansion of the national import and export programs in the long term, by completing the transport infrastructure represented by the port of Faw and the dry channel, and this will lead to encouraging and attracting transit trade across Iraq through the transformation of the maritime transport movement. From northern, central and southern Europe to Iraq. The port of Faw and the Dry Canal results in creating a state of development in the southern region of Iraq, which will lead to the absorption of unemployment, training and rehabilitation for all specializations, and the development of infrastructure for the transport sector for the purpose of meeting the expected demand of cargo and the rehabilitation and expansion of the current sidewalks, roads and railways for the purpose of accommodating the large loads that will be received by the port. The need to develop, build, and modernize the ethnic railway network and the highway network requires the fact that the current one is not commensurate with the population density or with the current and expected volume of economic exchange. The need for a kind of balance between the Al-Faw port project, which has capacities and specifications that meet the needs of modern shipping, with the modern road and rail network project, as these two projects are a prerequisite for the success of the dry canal project. It is expected that investment projects in railway networks and other roads will contribute to increasing the country's total income, and to improving and stimulating internal commercial practice essential to the success of the dry canal project.

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