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THE GEOGRAPHICAL REALITY OF THE EMERGENCE AND DEVELOPMENT OF INDUSTRY IN NINEVEH GOVERNORATE DURING THE PERIOD 1921 – 2020

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ABSTRACT:

By focusing on presenting, analyzing and determining the type and size of the development qualifications available in Nineveh Governorate, with an indication of their spatial distribution and their economic and industrial importance, and how to invest them in the direction of achieving industrial development within the economically backward areas of the governorate and analyzing the existing reality of manufacturing industrial activity in Nineveh Governorate, with determining the level of efficiency Economic activities of industrial activities, and the extent of their impact on the spatial trends of industrial development within the various regions of the province. In addition to determining the future geographical directions of industrial development, with the aim of contributing to the development of economically backward areas. The problem of the study lies in not exploiting the spatial dimension that Nineveh Governorate enjoys. The direction of distributing industrial activities within the economically backward areas, instead of concentrating them within the city of Mosul. This is in line with the pattern of spatial distribution of the available development qualifications within large areas of the governorate, which are still not economically invested. This constituted a major determinant for achieving relatively balanced industrial development within the economically backward areas of the governorate, especially revealing the reality of industrial investments, their spatial trends, what are the geographical possibilities available for industrial investment, and the pattern of distribution of industrial projects in the governorate. In order to achieve what was indicated, and through the results that were reached during this study, we found that Nineveh Governorate is still industrially backward, despite its richness in developmental qualifications that are distributed within large areas of the governorate, as the results of the study indicate that the level of investment of those developmental qualifications , and the settlement and development of economic activities, especially industrial activity is still below the required level, and does not fit at all with the requirements of achieving industrial development within the economically backward areas of Nineveh Governorate, which reflected negatively on the underdevelopment of the economic and social structure of the governorate. This requires the need to identify appropriate development strategies to achieve industrial development within the backward areas of the province

.key words

- Industrial geography
- Stages of industry development

1-1. Introduction:

Industrial activity is one of the most important economic activities and pivotal activity on which countries depend in building their economies and developing their various service sectors, because this activity has the potential and capabilities to develop the economic, social and urban reality, when the region has an advanced economic activity, it is able to provide the basic requirements for construction and progress for its residents and enables it to raise the standard of living for them and provide all services at the level of health, educational and recreational services, through which new social and cultural changes can be brought about And the development of developments in the built and service environment of the region, all this happens through the good investment of natural, human and economic resources available for industrial activity in the region and their employment for its benefit, when their results and various positive effects are reflected in the development of the region economically, socially, physically and service⁽¹⁾.

The process of achieving industrial development within the spatial space of the geographical region occupies great importance in the field of achieving spatial development because it represents the basic base that contributes to enhancing opportunities for developing the economic and social structure of the region, by achieving the optimal utilization of the development qualifications available within the geographical space, as well as providing suitable job opportunities for the workforce, and contributing to increasing the rate of income of individuals. This contributes to moving the region from the reality of underdevelopment to economic development.

1-2.. As for the main reasons that prompted the researcher to choose the province of Nineveh as a field of study, they are as follows:

First: - The province of Nineveh is characterized by a great diversity in geographical development qualifications. However, their industrial exploitation is still inconsistent with the requirements of achieving relatively balanced industrial development within the underdeveloped areas of the governorate. This requires revealing the importance of these developmental qualifications, and identifying ways to develop and invest them in the future towards signing appropriate industrial activities to achieve spatial development within the economically underdeveloped areas of the governorate.

Second: The great backwardness suffered by the province of Nineveh, especially in the industrial field. The current reality indicates that the level of development of industrial activity, and its contribution to enhancing the opportunities for achieving spatial development, is not at all commensurate with the development capabilities available within large areas of Nineveh Governorate, which are still industrially backward.

Third: Nineveh Governorate enjoys an important geographical-strategic location at the internal and external levels. This site can be of great importance in the growth and development of endemic industrial activities proposed for future signing in the governorate. This is done by increasing the

process of trade exchange of industrial production with other governorates of the country and perhaps neighboring countries, if industrial production is developed in the future towards export abroad, thus contributing to enhancing the chances of achieving relatively balanced industrial development within the economically backward areas of the governorate.

As for the economic and social importance of these industries, they contribute to providing job opportunities for large numbers of their workers, which increases and raises the standard of living for the population of their endemic areas, and provides hard currency when exporting the surplus of their products abroad, and when meeting the local need, it prevents hard currency from leaving the country during imports, as is currently happening in Iraq due to the backwardness of its food industry and its lack of contribution to meeting the local need. This is what we observe from the increase in processed foodstuffs imported in the local markets, offset at the same time by a significant decline in local products, and the country's exposure to many economic problems.

1-3. Study problems and questions:

The study is based on a number of facts and these facts emerge from them questions depend on the lack of industrial development reliable in the investment of industrial potential in the region and ways to manage and hence the facts and questions of this study emerge, namely:

1. Not to exploit the cadastral dimension enjoyed by Nineveh Governorate. Towards the distribution of industrial activities within the economically underdeveloped areas of the governorate, rather than their concentration within the city of Mosul. This is consistent with the spatial distribution pattern of development potential available within large areas of the governorate, which are still not economically invested. This constituted a key determinant for achieving relatively balanced industrial development within the economically underdeveloped areas of the governorate, especially the disclosure The reality of industrial investments and their spatial trends, what are the geographical possibilities available for industrial investment, and what is the pattern of distribution of industrial projects in the governorate.
2. What are the problems faced by investment projects, and what is the future vision of the spatial trends of industrial investment? How can the components of industrial development be selected, whether based on available capabilities or planned investment projects?
- 3- The absence of the role of industrial planning, which is compatible with achieving industrial development, as most industrial facilities are based in limited areas and leaving the bulk of them without any significant industrial activity, which reflected negatively on the rest of the other regions.

1-4. The hypothesis of the study:

In light of the questions raised above within the facts of the main problem, the following hypotheses will be formulated:

- 1- The need to develop appropriate development strategies that contribute to the development of the industrial sector in a manner consistent with the requirements of achieving industrial development within the underdeveloped areas of the governorate. There are natural, demographic and economic geographical potentials that contribute to industrial investment, and that investing them optimally contributes to improving the standard of living of the population and works to reduce the level of unemployment in the province
- 2- Achieving the spatial balance between the location of the industrial project and the available development qualifications, in accordance with the economic and social considerations of industrial

development. Especially since the growth and development of industrial activities in the province is still less than what is available to it in terms of the size and type of development resources available.

3- The principle of good industrial planning and its major role in the process of distributing industrial facilities must be taken into account and achieving a kind of industrial balance in the region, which ensures the recovery of the economic aspect and meets the region's need for industries.

1-5. Location of study area:

It is a governorate in northern Iraq, its center is the city of Mosul, the second largest city in Iraq, and its population is estimated at 3,751,573, according to the 2020 census. About half of them live in the city of Mosul, while the rest are distributed among the rest of the cities and districts. Before 1976, it was called Mosul Governorate and included the current Dohuk Governorate. The second largest city in the province is Tal Afar, and the majority of its population is Turkmen. The city of Mosul is considered part of the Nineveh Governorate from an administrative point of view, where the city of Nineveh arose in the Assyrian era on the left bank of the Tigris River, while the city of Mosul did not arise until later than Nineveh and on the right bank of the Degla river. With regard to the location of Nineveh Governorate, its spatial location is determined in the northwestern part of Iraq, as it is bordered to the north and east by the governorates of Dohuk and Erbil. From the south it is bordered by the governorates of Salah al-Din and Anbar, and from the west it is bordered by Syria. Nineveh Governorate is located in the northwestern part of Iraq between latitudes (35°-37°) north and longitudes (41°-44°) east. Its area is 323,37 km², and thus it constitutes 6.8% of the total area of Iraq amounting to 128,434 km², and it ranks third in terms of area in the governorates of Iraq after the governorates of Anbar and Muthanna, map (1) which shows the location of the governorate in Iraq and its administrative borders ⁽ⁱ⁾.

1-6. Objectives of the study:

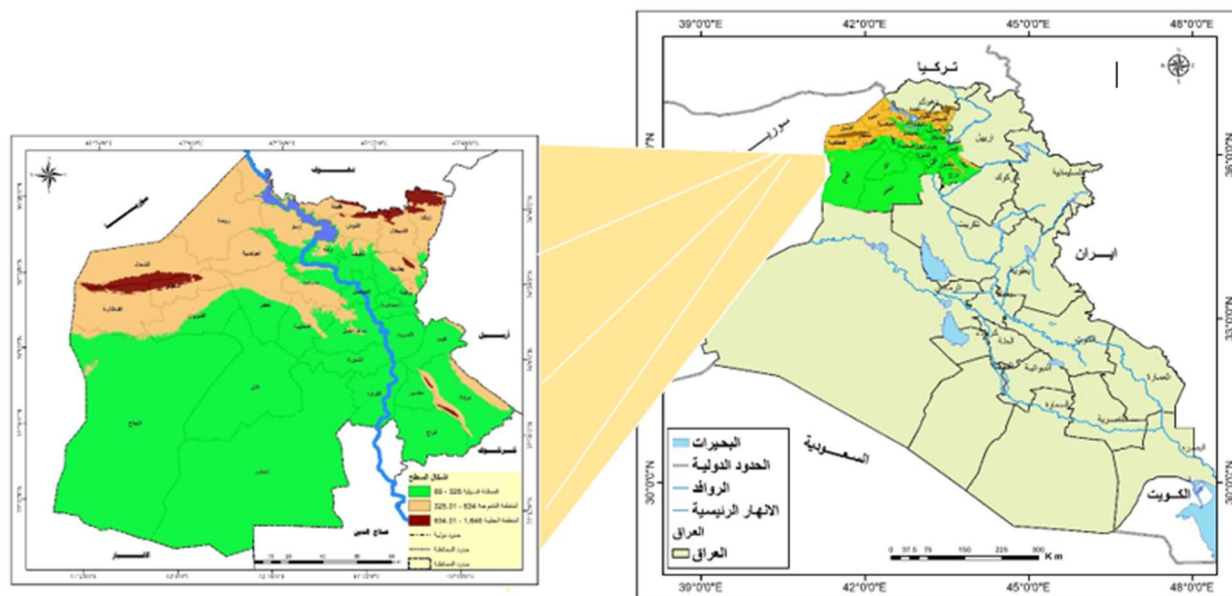
The study aims at the following:

Solution-oriented goals are the best way to acquire an integrated vision and at the same time be operational.

- Identifying the reality of industrial development in the province and ways to reach the best industrial economic level to reveal the possibilities that allow achieving industrial development in Nineveh Governorate to advance the industrial reality and encourage industrial investment in the region, especially the employment of manpower to raise the standard of living in addition to the location of the region in the northwestern side of Iraq and its borders with neighboring countries Turkey, Jordan and Syria, in addition to its proximity to the Kurdistan region of Iraq and being one of the areas that enrich with academic expertise and social capabilities To achieve the future trends of the industrial reality and ways to develop them within the different regions economically.
- Presentation and analysis of the existing geographical reality of the endemic industrial activity (sectoral and spatial) in Nineveh Governorate during the period 1960-2020 in order to reach knowledge of the extent to which the existing industrial activity contributes to achieving industrial development within the various regions of Nineveh Governorate.

- Identify appropriate development strategies to achieve industrial development within the economically underdeveloped areas of Nineveh Governorate
- Identifying future geographical trends to achieve industrial development within the economically underdeveloped areas of Nineveh Governorate

Map (1) Study Area Location



Source: Based on DEM digital elevation model, administrative map of Iraq at scale 1/1,000,000.

For the purpose of determining the geographical characteristics of industrial activity in Nineveh Governorate in terms of its origin and development, this section included the presentation and discussion of the reality of the development of industry in the province through the following stages: The first stage (1921-1957).

This stage represents the beginning of the establishment of national governance in Iraq in 1921, as new signs emerged towards achieving industrial development in the country, through the laws and government procedures taken to encourage and develop the national industry, especially the customs tariff law of 1923, which aims to encourage and develop industry by exempting imported machinery and machinery from taxes. In addition to the Industrial Projects Promotion Law of 1929, concerning the encouragement of investments in the industrial field ⁽¹⁾.

This phase also witnessed the establishment of the Industrial Bank of Iraq in 1947, which had a major role in supporting the projects of the private industrial sector with the necessary capital, in addition to the establishment of the Reconstruction Council in 1950.

Despite the measures taken during this phase, aimed at encouraging national industry, their impact was weak for the province of Nineveh, which remained industrially poor and did not concentrate any large industrial activity, except for small industrial activities, which are of a consumer nature. While the centers of major cities, especially the city of Baghdad, witnessed a large concentration of large industrial activities. The most important period of Sun industrial appeared before 1959, whether the private or government sector and after 1959 stopped the public sector industries despite the high rates

of added value, to appear these industries in other provinces. The most important industrial formations of the Ministry of Industry are :

- 1- General Sugar Company in Mosul 1959.
- 2- General Company for Al-Mishraq Sulfur.
- 3- The General Company for Building Materials, including the cement factory in Hammam Al-Alil, the Badoush cement factory, which manufactures lime bricks and concrete blocks, and the Sinjar cement factory, as the neighboring forms illustrate .
- 4- National Wood Company.
- 5- The State Company for Spinning and Weaving in Mosul, which was later established as the Valley Factory.
- 6- The working company for private mills for flour and bran.
- 7- Dairy factory in Mosul for the production of sterilized milk and yogurt.
- 8- Soft Drinks Company in Mosul.
- 9- Seed purification plant in Mosul.
- 10- General Company for the manufacture of medicines and medical appliances.
- 11- In addition to extractive industries such as oil production from Ain Zala fields since 1939 and the production of gear from Qayyarah. There are hundreds of companies and factories that depend in their production on plant, animal and mineral raw materials and extended from Mosul to many issues and aspects .

This is mainly due to the fact that the signatures of large industrial projects in the country during this phase were based on the following principles :-

First: - Selection of sites of industrial activities at the sources of processing local raw materials, especially for the institutions of the public industrial sector.

Second: - The industrial activities that have been signed, are activities of a consumer nature directed towards the areas of the main markets, especially within the centers of major cities, and this explains to us geographically the reason for the emergence of the city of Baghdad as a major axis to attract large industrial activities during this stage.

Third: - Emphasis on the signing of industrial projects at the sites where there are industrial activities, with the aim of achieving interdependence and functional integration between industrial activities, and in a way that contributes to achieving economic savings within the agglomeration area for industrial activities.

This means that the policy of spatial signature of industrial activities during this stage has relied mainly on the principle of economic efficiency and in line with the economic and social conditions that prevailed in the country during this stage⁽¹⁾: -

- 1- It was slow to grow, limited in number, as well as the small size of its industrial projects.
- 2- Reliance on raw materials available locally.
- 3- The adoption of the principles referred to in the signing of large industrial projects, has created industrially poor governorates, in exchange for a clear concentration of industrial activities within specific governorates, mainly represented in Baghdad, Mosul, Basra, and by (50%, 12.5%, 12.5%) respectively, of the total large industrial activities that were signed in the country during this stage, which are (16) industrial facilities ⁽²⁾.

4- The industrial activities that were signed during this stage are activities of a consumer nature.

5- The decrease in the volume of investment allocations allocated to the industrial sector, which accounted for only (15%), compared to other economic sectors, especially infrastructure services and agriculture, which accounted for (85%) of the total investment allocations amounting to (655.5) million dinars during the fifties (1950-1958) ⁽³⁾.

The second phase (1958-1970) :

This stage witnessed many changes that had a clear impact on the development of the industrialization movement in the country. The Council of Reconstruction was abolished and the Ministries of Planning and Industry were established, in addition to the issuance of the Industrial Development Law of 1961 instead of the Industrial Projects Promotion Law of 1929 ⁽⁴⁾ , With the aim of encouraging the investment of private capital in the industrial sector.

This stage was also characterized by the emergence of a trend towards adopting the method of planning and organization in the signing of industrial projects compared to the previous stage, as the processes of signing industrial activities during this stage were based on the following foundations ⁽⁵⁾ :-

First: The emergence of the government's orientation towards the development of the industrial sector in the country. The industrial sector accounted for (25%) of the total allocations of the economic development plan (1965-1969), amounting to (1500) million dinars.

Second: Paying attention to the issue of balanced geographical distribution of industrial activities in line with the trends of achieving economic and social development within the underdeveloped geographical regions, as the aim behind this trend is to achieve the following:

1- Creating job opportunities that contribute to reducing unemployment rates within the areas selected as sites for industrial activities.

2- Achieving population stability within underdeveloped areas, in a way that contributes to reducing the movement of people towards relatively developed areas.

3- Developing the level of local skills of the workforce.

4- Diversifying sources of income in a way that contributes to reducing the disparity in income levels between governorates

Despite the adoption of the principles referred to in the signing of industrial projects, the factors related to the economic efficiency of the project and the proximity to primary raw materials and market areas continued to play a major role in the signing of industrial projects, especially within the centers of major cities (Baghdad, Mosul, Basra).

With regard to the development of industry in Nineveh Governorate during this stage, it has witnessed a clear development compared to the previous stage. The number of large industrial establishments in the province reached (4) industrial establishments by (0.5%) of the total country, and the number of employees reached (81) workers and by (0.1%) of the total country for the year 1960. Then the number of industrial establishments increased to reach (15) industrial establishments and by (1%) of the total country. The number of employees reached (300) workers and (0.3%) of the total country for the year 1970 ⁽¹⁾ .

Despite the positive change in the number of industrial establishments during this stage, the governorate is still industrially backward compared to other governorates and the geographical development possibilities available in them, and the reason for this is due to the following

considerations:

- 1- The state of instability prevailing in the northern region of the country, including Nineveh Governorate.
- 2- The continued impact of economic factors in the signing of industrial projects, especially productivity within specific governorates, mainly represented in Baghdad, Basra, Babylon, which accounted for (69%) of the total allocations of the industrial sector amounting to (1500) million dinars, despite being provinces with a relatively large industrial base.

The third stage (1971-1990):

The industrial sector witnessed during this stage, especially during the period 1971-1980, a remarkable development, mainly due to the increase in investment allocations to the industrial sector during the economic development plan (1970-1975), as the percentage of allocations of the industrial sector reached (839) million dinars and by (28%) of the total allocations of economic sectors, then the allocations of the industrial sector rose during the development plan (1976-1980) to (4490) million dinars and by (37%) of the total allocations of economic sectors ⁽¹⁾.

These investment allocations have had a clear impact on the development of industrial activities at the level of the country and Nineveh Governorate in particular, through the foundations that were adopted in the signing of industrial projects during this stage, which are as follows:

First: - Emphasis on the signing of productive industrial projects directed to export to foreign markets, and this trend has crystallized through the signing of the iron and steel industry, the manufacture of steel pipes in Basra, in addition to the manufacture of phosphate fertilizers in Anbar province.

Second: - Attention to the balanced geographical distribution of industry among the different governorates of the country, with the aim of developing industrially backward governorates, and this trend has crystallized in the province of Nineveh through the establishment of carpet factories, tobacco factories and cigarettes.

Third: - The continuation of the trend towards the establishment of industries directed towards market areas, especially those in which the market is a locator for their settlement, and the city of Baghdad had the largest share in that according to the following considerations:

- 1- It includes the largest market according to the population size index.
- 2- It is characterized by a high level of living.
- 3- Availability of the necessary services required by industrial activities compared to other governorates of the country.

And when reviewing the extent of development of the industrial sector in Nineveh Governorate during this stage. We find that the number of large industrial establishments reached (45) industrial establishments by (3%) of the total country for the year 1980, then the number increased to reach (50) industrial institutions and by (6%) of the total country for the year 1990⁽²⁾, The public industrial sector accounted for (34%) of the volume of large industrial establishments operating in Nineveh Governorate in 1990, which are represented in the following ⁽³⁾ :-

- 1- General establishment for woolen weaving and women's clothing.
- 2- Handmade carpet center.
- 3- Carpentry Laboratory of the local administration / Nineveh.

- 4- Nineveh Press.
- 5- Directorate of Culture and Youth Press.
- 6- Directorate of the Ministry of Education Printing Press No. (2).
- 7- Nineveh Asphalt Directorate No. (1).
- 8- Concrete asphalt plant in Qanawi / Ashur Contracting Company.
- 9- Silk asphalt factory.
- 10- Asphalt plant.
- 11- Asphalt factory.
- 12- University Press.
- 13- Pipe Lab / Ashur Office in Nineveh.
- 14- Asphalt factory all of you.
- 15- Nineveh Skier Laboratory.

Despite the increase in the number of large industrial enterprises during the period 1980-1990, their annual growth rate of (0.5%) indicates a decline in the growth rate of industrial projects in the governorate, compared to the previous stage, especially during the period 1960-1970.

This is mainly due to the conditions of the defensive war fought by Iraq against Iran, which negatively affected the reduction of the size of investment allocations to the industrial sector, and the decrease in the growth rate of the number of large industrial enterprises at the level of the country in general, and the province of Nineveh in particular during the period 1980-1990.

Fourth stage (1991-2003):

This phase witnessed important political and economic developments in Iraq, represented by the following:

- 1- The imposition of a comprehensive embargo on Iraq by the so-called UN Security Council.
- 2- The tripartite aggression against Iraq, which targeted all areas of life, especially the economic sectors.
- 3- The prevalence of the phenomenon of administrative corruption within all economic sectors in the country, especially the industrial sector, as well as the absence of the role of the regulator, and the absence of any development plans aimed at developing the industrial sector, which reflected negatively on the deterioration of this sector ⁽²⁾.

Fifth Stage (2004-2020) :

The province witnessed a dark period from 2006 to 2014, during which armed factions spread and the security situation deteriorated until their fall into the hands of criminal ISIS gangs that demolished the infrastructure of the area and blew up most of the state's industrial and non-industrial institutions, in addition to military operations to liberate the area. Thus, all industries stopped production, as the reason for this cessation is due to the following considerations:

- 1- The significant shortage in the requirements of industrial activities of raw materials and imported spare parts.
 - 2- Lack of skilled manpower, especially forced displacement, which led to a decrease in the proportion of industrial activities on which the governorate depended.
 - 3- The lack of capital invested in the industrial sector, and the difficulty of obtaining hard currency.
- These factors have had a multiplier negative impact on the industrial sector in Nineveh Governorate.

While the habit of life again in the province of Nineveh after its liberation from terrorist gangs, the reason for this positive change is mainly due to the conditions of relative stability witnessed by the province, as well as the encouragement of private industrial investment as in Table (22).

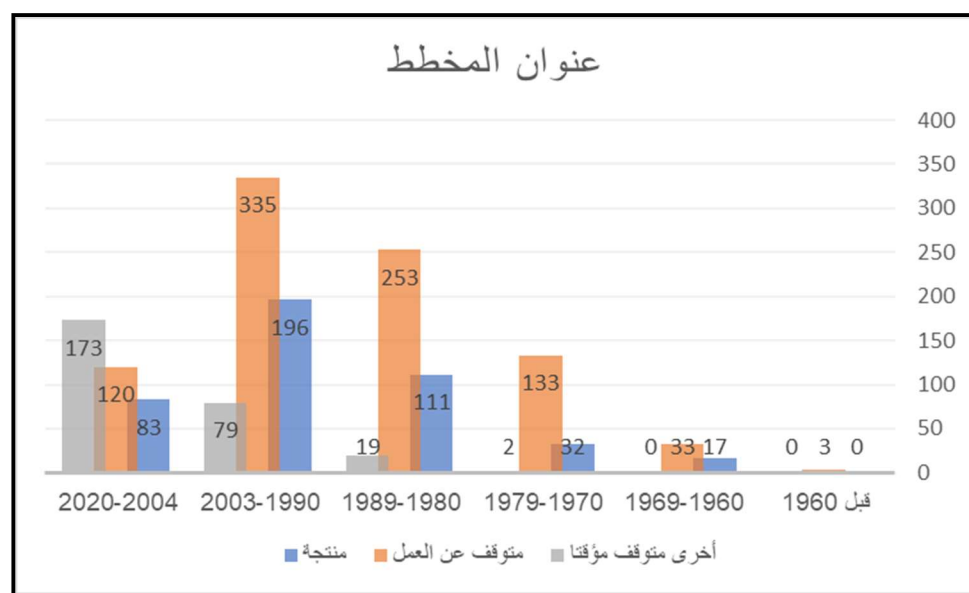
Table (1) shows the change in the number of industrial establishments in Nineveh Governorate for the period (1960-2020).

Periods	Productive	Stopped	Other Paused	Total
Before 1960	0	3	0	3
1960-1969	17	33	0	50
1970-1979	32	133	2	167
1980-1989	111	253	19	383
1990-2003	196	335	79	610
2004-2020	83	120	173	376
Total	439	877	273	1589

* As a result of the absence of some fields of the form from the answer, the difference in numbers came about (40) form

Source: Based on the Field Survey Form 2021

Figure (1) shows the change in the number of industrial establishments in Nineveh Governorate for the period (1960-2020)



Source: Based on Table (1)

The second topic: - The reality and trends of endemism of the structure of the industrial sector in Nineveh Governorate for the period 1980-2020

This section included the presentation and discussion of the geographical characteristics of the reality

of the endemism of the structure of the industrial sector in the province of Nineveh, in order to know the economic importance enjoyed by this sector at the level of the province and the country, by comparing the indicators of industrial settlement in the province (number of establishments, number of workers, wages and value added) with the same indicators at the country level, in addition to a statement of the economic philosophy followed during this stage, and the extent of its impact on the variation of industrial settlement trends by ownership in the province. Therefore, this section included the presentation and discussion of the following main axes: -

Industrial in Nineveh Governorate for the period 1970-2020.

The presentation and discussion of the reality of the geographical distribution of industrial establishments by ownership (public and private sectors) in Nineveh Governorate, will show us the importance of each industrial sector for the industrial structure in the governorate and the country according to the criterion of the number of industrial establishments, the type of economic philosophy followed, and what impact this has on the possibility of achieving industrial development in the governorate.

By observing the results of the data of Table (23), which shows the reality and trends of endemism of the structure of the industrial sector according to the criterion of the number of industrial establishments in Nineveh Governorate and the country by ownership, it appears to us the following: First: By analyzing the structure of the industrial sector in Nineveh Governorate by ownership, it appears to us that the years 1970 and 1980 witnessed a clear rise in the relative importance of the number of industrial establishments affiliated to the public sector compared to the private sector, as this is due to the increase in the government's tendency to pay attention to the industrial sector. This is in addition to the weakness of private industrial investment during this stage in Nineveh Governorate, due to the trend towards establishing industrial projects belonging to the private sector in the market areas in major cities, especially the cities of Baghdad, Basra and Mosul. This explains to us geographically the reason for the high relative importance of the private industrial sector compared to the public industrial sector at the country level during all the years of the time series. While the period 1990-2020 witnessed a clear decline in the relative importance of the public industrial sector compared to the private sector in Nineveh Governorate, i.e. the increase in the importance of the private industrial sector in contrast to the decrease in the importance of the public sector in the industrial structure of the governorate. As the negative political and economic developments and events witnessed by the country and the Nineveh Governorate during this stage, especially after 1991, had a negative impact on the development of the structure of the public industrial sector in the country and the governorate in particular, through the cessation of government investment and the lack of interest in the public sector by officials in the governorate in exchange for Encouraging private industrial investments, and then stopping a large number of industrial units belonging to the public industrial sector.

Table (2) The reality and trends of endemism of the structure of the industrial sector by the criterion of the number of industrial establishments in Nineveh Governorate and the country by ownership for the period 1970-2020

Governorate	Indicators Years	1970	1980	1990	2000	2010	2020
Diameter							
Nineveh Governorate	Public Sector	1	8	22	15	9	9
	% of the province	25%	53%	52%	34%	16%	12%
	Private Sector	3	7	20	29	47	65
	% of the province	75%	47%	48%	66%	84%	88%
	Total	4	15	42	44	56	74
	Nineveh Governorate CAGR	-	14	12.5	8.3	6.8	6
Diameter	Public Sector	61	176	266	113	136	99
	% of diameter	7%	14%	18%	15%	21%	16%
	Private Sector	819	1104	1180	636	503	508
	% of diameter	93%	86%	82%	85%	79%	84%
	Total	880	1280	1446	749	639	607
	Country CAGR	-	3.8	2.5	-0.5	-0.8	-0.7
Percentage of Governorate to Country	Public Sector	2%	5%	8%	13%	7%	9%
	Private Sector	0.4%	1%	2%	5%	9%	13%
	Total Industrial Sector	0.5%	1%	3%	6%	9%	12%

Source:- Source based on

1- The field study - the questionnaire form, previous source.

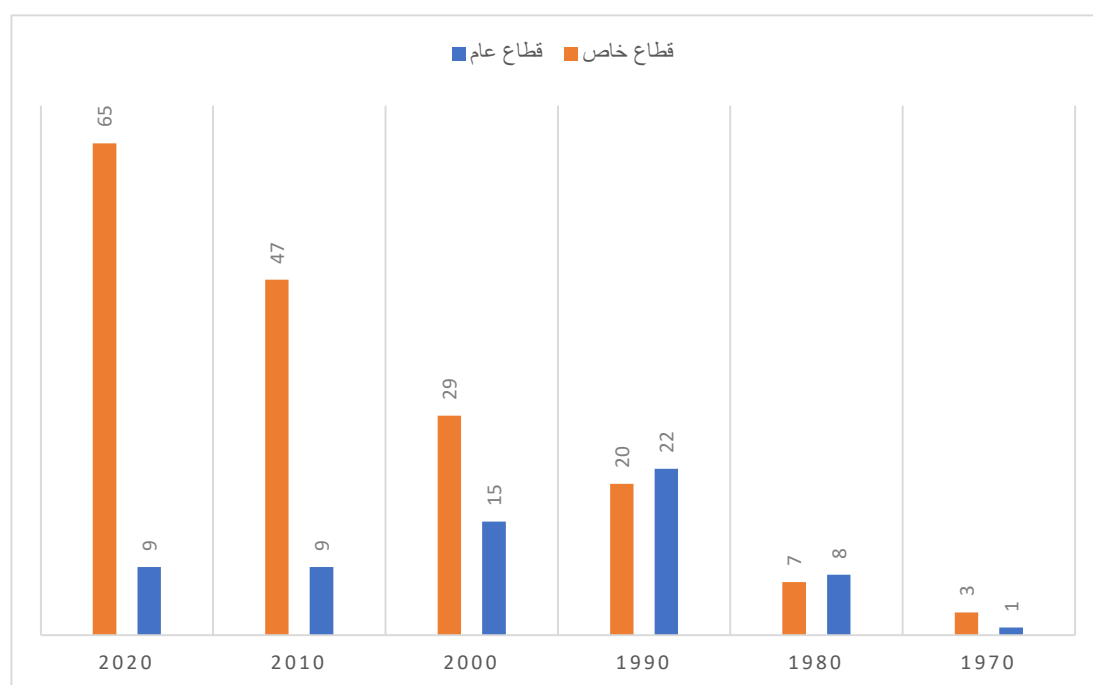
2- The General Directorate of Industry in Nineveh Governorate, electronic calculator tables. previous source.

3- Republic of Iraq - Ministry of Planning - Central Bureau of Statistics - Directorate of Industrial

Statistics, results of the annual industrial census of large industrial establishments in Nineveh Governorate and Qatar for the period 1970-2020, unpublished.

As the arithmetic average of the number of industrial establishments affiliated to the private sector was (68%) compared to (32%) for the public sector in Nineveh Governorate during the period 1970-2020, and this has a negative impact on the trends of achieving industrial development in the governorate.

Figure No. (2) shows the reality and trends of the relative importance of the number of industrial establishments for the private and public sectors out of the total industrial sector in Nineveh Governorate for the period 1970-2020.



Second: It appears through a statement of the importance of the industrial sector in Nineveh Governorate compared to Qatar, that the relative importance of the public industrial sector in the governorate recorded a clear increase during the period 1970-1990, and this is attributed to the fact that the economic philosophy of the state during this stage focused on establishing large industrial projects in Industrially backward governorates, while the relative importance of the public sector during the period 2000-2020 recorded a clear decline and fluctuation, mainly due to the lack of interest in the public sector and the focus on private industrial sector projects that recorded a remarkable development in relative importance during all the years of the time series.

Third: All values of the compound annual growth rate of the number of industrial establishments in Nineveh Governorate for the base year 1970 recorded a clear positive change during all the years of the time series, despite the clear fluctuation (up and down) between the different years. The years 1970 and 1980 recorded high positive growth rates compared to other years. This is mainly due to the

following:

- 1- The relative political and economic stability that prevailed during this stage.
- 2- Emphasizing the economic development plans during this stage on the importance of the role of the industrial sector and making it the leading sector in achieving the relative transformations during all the years of the time series.

Conclusions and recommendations

1- The negative effects of the defensive war waged by Iraq against Iran, which led to a decrease in the volume of investment allocations allocated to economic development plans, and then a decrease in government support for public industrial sector institutions at the country and governorate levels, and a large number of them stopped.

2- The exceptional circumstances that the country and Nineveh Governorate in particular went through during this stage, from a comprehensive blockade since 1991, and brutal aggression, in addition to the turmoil of conditions from 2006 to 2017, have negatively affected the industrial sector in the province through a halt Governmental financial support and loans from the Industrial Bank of Iraq, in addition to the lack of necessary spare parts, imported raw materials and technical expertise and the difficulty in obtaining them, and the deterioration of the security situation, which contributed to the stopping of a large number of industrial projects, especially those of the public sector in the province.

3- The great openness of the local markets towards imported goods competing with local production, due to the low costs of obtaining them in exchange for the high costs of local industrial production, in addition to the lack of protection and incentive measures for the national industry, which contributed to the weak economic efficiency of industrial projects and the stopping of many of them.

Recommendations:

1- An extensive study on the reality of industries in Nineveh Governorate, with teams field surveying all industries and evaluating them, and determining the direction and methods of their development, especially supplying the governorate with industries and raising their economic level.

2- Introducing modern technologies in the development of industries in Nineveh Governorate, which will have an economic and commercial return, and then fill the need of the governorate from the shortage in it.

Margins:

⁽¹⁾Muhammad Jawad Shabaa, Industry and its Impact on Regional Development in Najaf Governorate, Master Thesis (unpublished), College of Arts, University of Kufa, 2007, p.1.

⁽ⁱ⁾Ministry of Planning, Central Statistical Organization, Annual Statistical Collection, Baghdad, 2020, p. 98.

⁽¹⁾Jawad Hashim et al., Evaluation of Economic Growth in Iraq (1950-1970), Part 2, Ministry of Planning, Baghdad, 1970, p. 171.

⁽¹⁾Abdul Khalil Fadil, The Geographical Distribution of Industry in Iraq, Al-Irshad Press, Baghdad, 1976, pg. 25.

⁽²⁾Ibid., p. 106

⁽³⁾Republic of Iraq - Ministry of Planning - National Institute of Planning, Economics of Industrial Concentration and Dispersion .. Concepts and Applications, Study No. 166, K1, 1984, p. 58, unpublished.

⁽⁴⁾Ahmed Habib Rasoul, Abd Khalil Fadil, Industrial Geography of Iraq, Mosul University Press Directorate, 1984, p. 30.

⁽⁵⁾Republic of Iraq - Ministry of Planning - National Institute for Planning, Economics of Industrial Concentration and Dispersion, previous source. Pg. 59-62.

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