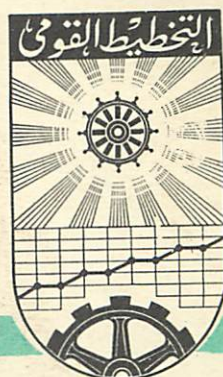


ARAB REPUBLIC OF EGYPT

THE INSTITUTE OF NATIONAL PLANNING



Memo. No. 1208

THE PROBLEM OF INDUSTRIAL LOCALIZATION IN EGYPT

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October 1977

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Egypt is divided administratively into what is called "Governorates". These governorates are of the number of twenty-five. The two main governorates are Cairo(the capital) and Alexandria(the main harbour). The other governorates can be grouped geographically into "Canal zone governorates"(3), "Lower Egypt governorates"(8), "Upper Egypt governorates"(8)and "Frontiers governorates"(4). Frontier governorates occupy most of the desert area of Egypt.

1. The Phenomenon of Industrial Localization:¹⁾

In Egypt, manufacturing industry is not distributed evenly among governorates. This phenomenon is not a new one, however it becomes more apparent with the more forward going on industrial development.

In 1947, three governorates absorbed about one-half (50.3 per cent) of the total manufacturing employment(see table 1). Cairo, the capital governorate, accounted alone for more than one-quarter of the total manufacturing employment. Alexandria, the main harbour, and Gharbia, the

1) The available data are concerned to the period till 1967.

Table No. 1.
Geographical Distribution of Manufacturing
Employment
(1944, 1960, 1964 & 1967)

(in per cent)

Governorates	1947	1960	1964	1967
Cairo	26.7	26.6	28.6	26.7
Calubia	4.7	8.6	9.7	8.7
Giza	4.3	6.0	7.6	6.3
Alexandria	11.4	11.1	17.9	18.2
Port-Said	1.7	0.9	1.2	1.1
Ismailia	1.7	0.4	0.2	0.5
Suez	0.6	1.0	1.6	2.2
Damietta	1.1	1.9	2.0	2.3
Dakahiliya	5.5	3.1	2.9	3.4
Sharkiya	3.9	2.3	1.6	2.6
Kafr-El-Shaikh	12.2	1.0	1.0	1.2
Gharbia		9.5	8.5	8.2
Menoufia	4.3	1.7	2.3	2.6
Beheira	4.3	5.7	5.6	4.9
Beni-Suef	1.5	0.9	0.8	1.1
Fayoum	3.6	1.1	1.0	1.3
Minya	2.9	1.8	1.7	2.2
Assyut	3.5	1.5	1.2	1.7
Sohag	3.1	1.5	1.2	1.5
Kena	3.8	2.2	1.7	2.2
Aswan	0.7	1.2	1.5	1.0
Frontiers Governorates	0.2	2.1	0.0	0.0
Total	100.0	100.0	100.0	100.0

Notes and Sources: There are certain changes in the administrative borders of the different governorates from one census to another. 1947 employment data exclude persons less than 5 years old and persons serving in military forces. Other years data exclude persons less than 6 years old and include persons serving in military forces.

Egypt, Department of Statistics and Census, Census of Population 1947. Second Part, Cairo, 1953; U.A.R, C.A.P.M.S. Census of Establishments 1960. Vol. 2. Cairo, 1964; Census of Establishments 1964. Vol. 2. Cairo, 1967; and Census of Establishments 1967. Vol. 2. Cairo, (in Arabic).

main cotton textile centre, accounted together for another one-quarter of the total manufacturing employment. The second half of the manufacturing employment was distributed more or less - among the other governorates. In most of these governorates, manufacturing industry existed, however, in moderate shares varying between 3 and 5 per cent of the total manufacturing employment.

Over the period 1947 - 1964, spatial structure of manufacturing industry was more localized. The increase in localization was toward Alexandria, Cairo and its two adjacent governorates Calubia and Giza. In 1964, the two geographical areas Alexandria and Cairo (and its two adjacent governorates) accounted alone for two-thirds of the total manufacturing employment. Then, it is natural to find that the relative shares of most of the other governorates in the total manufacturing employment were gradually decreased. The relative share of Gharbia (the main cotton textile centre) also decreased. An exception was the case of the two new manufacturing centres of Suez and Aswan where their shares in the total manufacturing employment increased; although they still accounted for relatively low proportions.

It is interesting to notice that in 1967, localization of industry slightly decreased. While the labour absorbed by the two main geographical areas, slightly, declined, the absorption by nearly all the other governorates increased. But, this adverse phenomenon was not a result to a change in the direction of the policies of location of industrial projects. The main reason was behind the followed shrinking policies from 1965/66 to 1967/68. These policies decreased the total volume of investments and consequently decreased the expansion in employment opportunities by the different economic sectors. But the sector of small-scale establishments was, relatively, opened for extending employment opportunities. Then, the increase in the relative share of the absorbed labour by small scale establishments that are less localized than large scale establishment was the main reason behind this adverse phenomenon.¹⁾

The same trend of the increase in localization of manufacturing industry can be noticed from the change in the ratio of

1) See: Hassan Abdel-Aziz H., Industrial Development and its Influence on Internal Migration, Seminar on the Relation between Population and Development in Africa, 8:25 April, 1974, Cairo, I.N.P. Cairo and U.N.A.I.E.D.P. Dakar, PP. 27, 29; 30.

localization of manufacturing industry with respect to the number of population(table 2). This ratio clarifies the relationship between the geographical distribution of each of manufacturing employment and population. The value of the ratio varies between zero and one. Its nearness to zero means that manufacturing employment is geographically distributed in near proportions to the geographical distribution of population; while the nearness to the complete "one" means that manufacturing employment is greatly localized with respect to the geographical distribution of population.

Table No. 2.

Localization Ratio of Manufacturing
Industry with Respect to the No. of Population¹⁾
(1947, 1960, 1964 and 1967)

Year	Localization Ratio
1947	0.25
1960	0.35
1964	0.59
1967	0.34

1) Sources: A.R.E., G.P.A.M.S., Population Estimations in U.A.R., Cairo, 1967, PP., 3 & 27; and the sources of table (1).

With exception the unusual slight decrease in the localization ratio in 1967, it is possible to see the realized increase in the ratio from 0.25 in 1947 to 0.59 in 1964. But, inspite of that realized increase, it is possible to notice that the general levels of the ratio of localization were not so high as it could be expected from the previously explained high degree of localization of manufacturing industry. The reason is that there are disparities in geographical distribution of population. The main industrial governorates include high proportions of population as there is significant correlation between internal migration and the levels of industrial development by governorates. People migrates from less industrialized areas to the more industrialized ones.¹⁾ Then, the phenomenon of localization is not only concerned to manufacturing industry but also existed in the field of population.

2. The Factors Behind the Problem of Localization:

Localized pattern of manufacturing industry is a natural result of the geographical pattern of allocating manufacturing investments over a long - or even very very

¹⁾ Hassan A. H., Ibid., PP. 12:15.

long - period of time. Investments, in turn, have been induced by some different factors. It happens that one or a group of these factors predominate certain industry, in certain time or in certain place; while another factor or more may be the most important related to another industry, time or place. At any how, it is possible to classify the responsible factors for distributing industries among regions to four main ones; mainly historical factor, natural factor, economic factor, and social and national factors.¹⁾

It is possible, however, to notice that historical and natural factors can be originally, considered as economic or social ones. As the so called "historical factor" presently was not so when the industry originally established. Other factors-natural, economic or/and social-which had the responsibility of locating, originally, the industry. These other factors may be disappeared presently, but industry is still living in its original place. At the same time, considering what may be called "natural factors" in locating any industry is mainly because of their influence on economic magnitudes.

1) See: Aida Beshara, Industrial location in the Egyptian Region, Dar-El-Nahda El-Arabia, Cairo, 1962, P. 25, (in Arabic).

It is worth to note that not only the policies of location that have an influence on the geographical pattern of manufacturing industry but also the other policies of industrialization such as the profile of industries, techniques of production and scales of establishments.

2.1. Geographical Distribution of Manufacturing Investments¹⁾

Geographical allocation of manufacturing investments explains to great extent the previously indicated increased localization of manufacturing industry from 1947 to 1964.

During the period of the First industrial Programme Nov., 1957-June, 1960, geographical distribution of manufacturing investments was greatly concentrated. Greater Cairo (Cairo in addition to the adjacent areas of the Calubia and Giza governorates) absorbed alone more than one-third of the total manufacturing investments. If we add the allocated manufacturing investments to the other main governorate, Alexandria, their share increases to a little

¹⁾ The available data are concerned with the two periods: 1957-1959/60 and 1960/61 - 1964/65.

less than one-half (48.7 per cent) of the total manufacturing investments. Outside these two main geographical areas, relatively high proportions of the total manufacturing investments were allocated to the new manufacturing centres Suez and Aswan (17 and 14 per cent respectively). In contrast, all the rest of the governorates received either very slight investments or none at all.¹⁾

Over the period 1960/61 - 1964/65, one of the objectives of the industrial plan was to distribute industry whenever possible between the various governorates of the country. This aim was slightly achieved; as manufacturing investments although they were more relatively scattered over the various governorates than during the period 1957-1960 were still concentrated. The two main governorates of Cairo and Alexandria received more than one-quarter of the total manufacturing investments. Adding the two governorates adjacent to Cairo (Giza and Calubia) their proportion increases to a little less than half (47.8%). The two new manufacturing centres (Suez and Aswan) in

¹⁾ See: Hassan Abdel-Aziz H., Location of Industry in Egypt, Internal Memo. No. 448; I.N.P. Cairo, 1975. PP. 19:21, (in Arabic).

addition to Kena absorbed a little more than one-quarter of the total investments (26.1 per cent). The remaining small part of investments was scattered unevenly over the rest of the governorates.¹⁾

2.2. Other Policies of Industrialization:

The change in the output structure of manufacturing industry has an influence on the geographical distribution of manufacturing industry. Industries differ in their requirements in the places of their erection and consequently differ in their degree of localization. It is possible to classify manufacturing industries according to the criteria of the localization ratio into two categories,²⁾ relatively "dispersed industries" and relatively "localized industries"³⁾. The first category consists, mostly of con-

1) Ibid., PP. 21:22.

2) Localization ratio of certain industry equals the sum of either the positive or the negative differences between the rates of the geographical distribution of the employment of this industry and the ratio of the geographical distribution of total manufacturing employment.

3) The first category includes industries with a ratio of localization accounting for less than 0.30 (according to the data of 1947) and the second category includes industries with higher localization ratio than the indicated limit.

sumer-goods industries in addition to certain other industries a great part of their establishments submit industrial repairing services. The second category consists, mostly of the other industries; working, mostly, in the production of intermediate and capital goods.

Over the period 1952-1967, it is worth to note, that the output structure of manufacturing industry was dominated by the category of the relatively "dispersed industries", as it accounted for a little more than two-thirds total manufacturing output. There was, however, a structural change decreasing the relative share of the relatively dispersed industries and increasing the share of the relatively localized industries. Most of that structural change happened during the period of comprehensive planning, 1960/61 - 1966/67, as the change was in favour of intermediate and capital-goods industries on account of consumer-goods industries. That structural change had an influence on the indicated increase of the localization of manufacturing industry, especially during the period 1960-1964.¹⁾

1) H.A., Industrial Development and Its Influence on Internal Migration, Op. cit., PP. 18:22.

At the same time, the policies of techniques and scales of production have also, an influence on the geographical distribution of manufacturing industry. Small-scale establishments are less localized than larger ones. Over the period 1952-1964, there was a decrease in the relative share of small-scale enterprises(employing less than 10 persons) from 40.7 to 27.2 per cent of total manufacturing employment. At the same time, the relative share of large-scale establishments(employing 500 and more persons)increased from 28.7 per cent of total manufacturing employment in 1952 to 40.3 per cent in 1964. That change was accompanied with an increase in the capital intensity of the techniques of production. These policies had participated in the indicated increase of the localization of manufacturing industry. The realized decrease in the localization of manufacturing industry in 1967 was a results, as it is mentioned before; to the increase in the relative share of small-scale establishments from 27.2 per cent of total manufacturing employment in 1964 to 36.0 per cent in 1967.¹⁾

1) Ibid., PP. 27:30.

It is worth to note that in certain manufacturing branches the erection of large scale establishments-located mostly in the main manufacturing centres - was accompanied by a relative -or even an absolute-decrease in the activities of small scale establishments that worked in the same fields and located in the other less industrialized governorates. This was a result to competition.¹⁾ Then, the role of the policies of techniques and scales of production on the problem of the localization of manufacturing industry is so clear.

2.3. Economic Considerations:

Economic considerations were in most cases behind the phenomenon of localization. Vicinity to market may be the most important economic factor that has influenced the geographical distribution of Egyptian industry.²⁾ For instance, in 1969/70, the two main industrial governorates Cairo and Alexandria - accounted for about 21 per cent of the total

1) Hassan Abdel-Aziz H., The Problems of Industrial Development in Egypt, Memo. No. 1051, I.N.P., Cairo, 1973, P. 20.

2) M.F. Akl and F.M. El-Sakar, Economics of the U.A.R., Industrial Production, Monshaat-El Maarof, Alexandria, 1967, P. 462 (in Arabic).

population, 33.0 per cent of the total individual income and 32.0 per cent of the total private consumption. At the same time, average private percapita income amounted to nearly L.E. 113.2 and L.E. 107.3 in Cairo and Alexandria respectively as against an average of L.E. 55.3 and 54.8 in lower and Upper Egypt governorates respectively.¹⁾ The other economic considerations have - without doubt - reinforced the factor of market in realizing the phenomenon of localization.

The appearance of new manufacturing centres in Aswan and Suez is due also to economic consideration. Vicinity to the sources of raw materials was the main cause for locating most of the new petroleum and some chemical projects in Suez. At the same time, closeness to the hydro-electric power which was generated from the Aswan Dam explains why large fertilizer plant and some related chemicals projects were located in Aswan.

The economic considerations were, also, behind the relatively less localization of small-scale establishments.

1) A.R.E., Ministry of Planning. The Main Features of Growth by Governorates 1964/65-1969/70, Third Report, Cairo, 1972, PP. 23, 175 and 176 (in Arabic).

Nearly all these establishments are private owner-ship. Then, in their profit seeking, they are scattered all over the country to satisfy part - or most - of local needs of consumer-goods and to submit the needed industrial services. Unavailability of most of public utilities - such as electric power, modern transportation means, etc. - do not handicap them; but in contrary, this factor may protect them from outside competition of large-size establishments.

3. Regional Disparities and National Aims:

It is clear that in locating industries there were certain economic considerations led to the increase in the localization of industry in certain few governorates leaving the other ones with a little industrial activities.

The main centres of industry attract new industrial activities because of their characteristic pull forces and the economics of geographical concentration.¹⁾ But, these economic benefits are not without limits. There are dis-

1) Such as transfer economies, linkage by complementary use, concentrating effect of the structure of transfer costs in addition to the applicability of the large-scale economy on urban-centres of production. Hassan Abdel-Aziz H., The Factors Influencing on Location of Industry, Internal Memo. No. 377, I.N.P., Cairo, 1974, PP. 20:22 (in Arabic). References there mentioned.

economies of scale that, after certain level, let the growth of population and activities by the region uneconomic. Then the growth of any region is a sound feature, only, to a certain level. Imperfection of the market forces and the governmental laws and instructions encourage, however, the play of the forces of geographical concentration while they stop the influence of the forces of regional balancing (or diseconomies of scale).¹⁾ Consequently, over-localization of industry may lead to maximum profit from the firm point of view but they may not be the maximum one from the national economic point of view. The growth of certain regions exceeds their optimum economic scales on the account of the growth of other regions where the allocation of resources would be more economically productive.

Over-localization of industry and the consequent disparities in economic development among regions arises not only as a result to the allocation of most of the new economic resources to the main industrial regions but also as a result to the absolute decline in the size of the existent economic

1) See: M.N. Fag El-Nour, Economic Development and Population Exploitation in Metropolitan areas, Memo. No. 967, I.N.P., Cairo, 1970, PP. 48:61.

activities in the less developed regions. The mentioned example of small-scale establishments reinforces this idea. Moreover, the previously indicated internal migration from less industrialized areas to the more industrialized ones is so important here. This means that as a result to over-localization of industry the gap between the levels of the development of the few industrial regions and the other ones will increase. This phenomenon is not justified on both economic and social grounds. Then, does it mean that it is required to distribute development resources evenly among governorates?.

It requires regard to note that there is also a gap between the levels of development of developed and developing countries. This development gap is widening over time; as developing countries are facing not only the problem of backwardness but also the problem of technological revolution taking place in the developed countries. Then, the task of development is not easy. It is required to allocate and to locate the limited available mobilized resources where it is possible to realize the highest return. The different regions of the country varies in their characteristics and

their potentialities of growth and consequently varies in their return. Then, it is not preferable to equally - regionally - distribute the resources of development. Even with equal geographical characteristics and potentialities, it is more preferable to concentrate the primary efforts of development within limited number of region to be able to attain the economies of geographical concentration and to realize external economies.

It is clear that from the national economic point of view it may be required to follow-without exaggeration industrial localization. The explained industrial localization in Egypt exceeded without doubt its rational limits. There is a need to create new industrial centres, chosen at nodal points to act as growth poles. In the beginning, the economic returns on these new centres may not be high but, gradually, returns will increase with the completion of the economic and social structures of these centres. This means that the selection of industrial centres have to have an economic sense at least from the long run point of view. In this concern, the creation of new industrial centres in Suez and Aswan governorates is a good achievement. It is recommended to go ahead in this possibility.

It goes without saying that there is usually a conflict at least on the short run between the main macro-economic requirements of development and the need to mitigate regional disparities. This shows the importance of regional planning as a significant part of the national economic and social planning.

A part from some others, the policies of industrialization can play the main role in reducing regional disparities. This is the concern of each of the policies of the profile of production, techniques and scales of production in addition to the policies of location. As it is indicated before, consumer goods industries are relatively less localized than producer goods industries. At the same time, medium and small-scale establishments are, also relatively less localized than large scale establishments. This returns to their characteristic requirements in the places of their erection.

The main macro-economic requirements of development have not to be sacrificed, however, in drawing up the policies of output-structure of manufacturing industry. This means that it is not recommended to neglect productive lines

of production on the reasoning that they are, generally, more localized than the consumer ones. Leading industries upon which the process of economic development have to be based - have to be established in the most suitable techniques and economic scales of production. They have to be located in the most economic locations where it is possible to realize external economies. Other industries which their output are, mostly, for domestic consumption - are recommended to be developed with less capital intensive techniques and in medium and small scales of production to meet the specific requirements, especially that of reducing regional disparities. They have to be widely located in the different areas of the country. The sector of small scale establishments requires a great deal of help and encouragement. In Egypt, it is in need of a sound organization to be able to realize its role efficiently. It is worth to stress the importance of finding a form of what may be called a division of labour between large-scale and small-scale establishments.¹⁾

¹⁾ This is not an easy task. It requires sound economic and technical studies.