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Athens, 29 November-20 December 1967
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SOME INDUSTRIALIZATION ASPECTS OF DENSELY POPULATED AREAS

Prepared by

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Centre for Management and Industrial Development, Rotterdam

Submitted by the Government of the Netherlands

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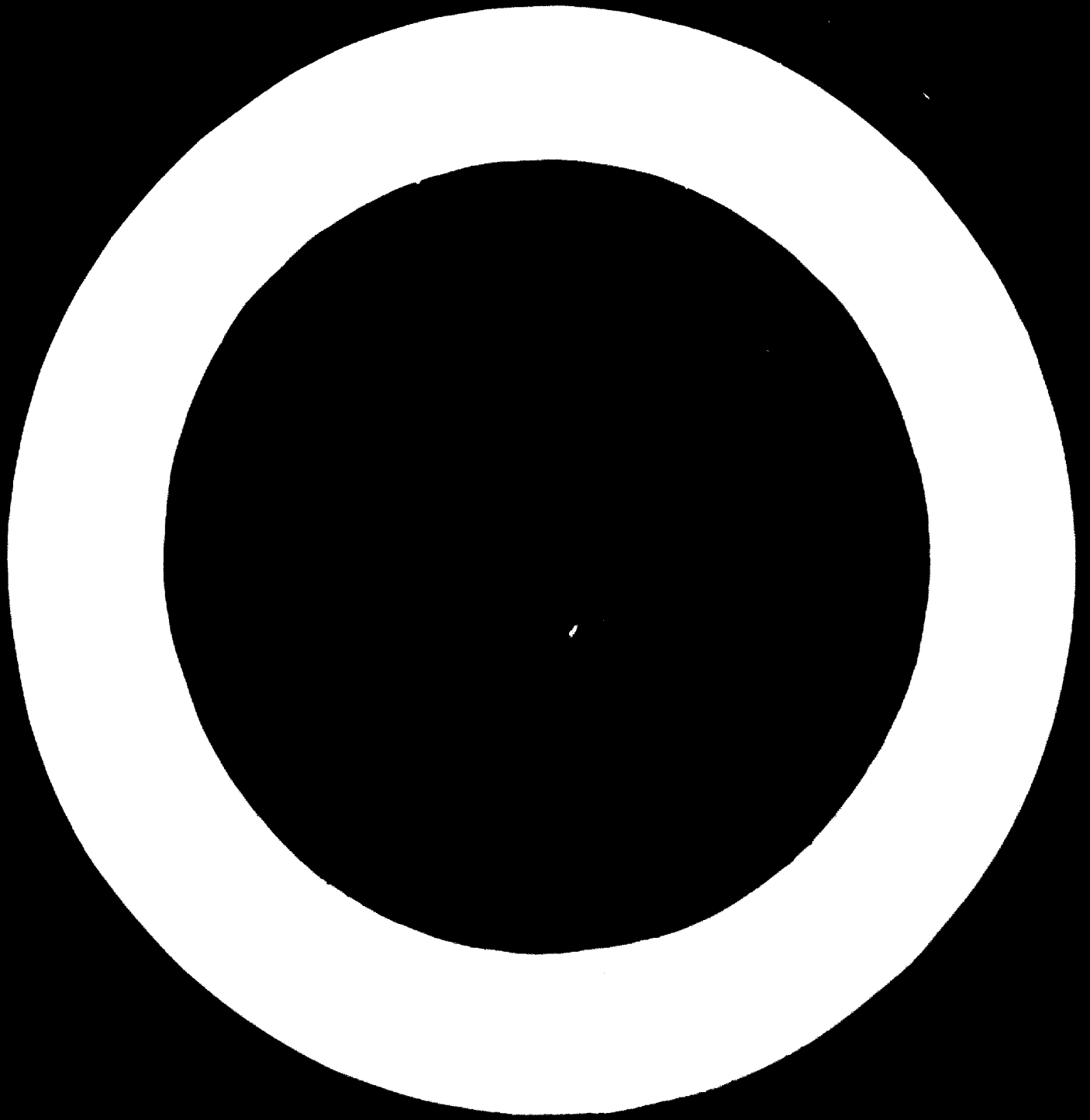
SUMMARY

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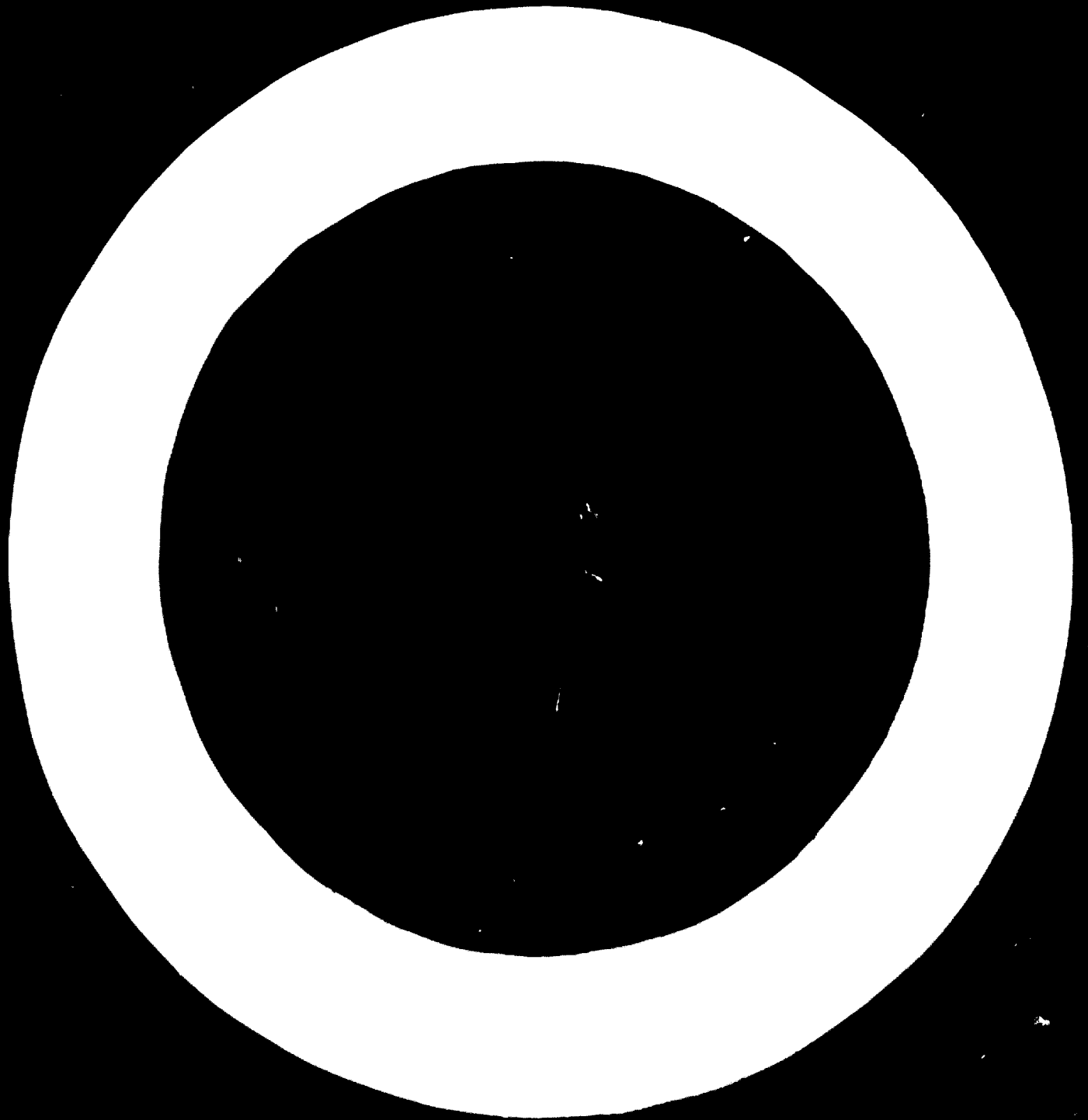
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Submitted by the Government of the Netherlands

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1. Dense population concentrations in relatively few parts of the country - often covering, in the aggregate, even less than 10 per cent of the country's total area, but more than half of its population - characterize the economic-geographic structure of many developing countries. In certain countries, there may be found large, sparsely inhabited regions with rich mineral deposits or other unmistakable potentials for developing into future industrialized areas. These developing countries have the potential for developing rather rapidly a geographically balanced economic structure. In other developing countries, however, extensive infra-structure development would have to precede eventual industrialization of less populated areas. Availability of a relatively well-developed infra-structure and availability of various institutional facilities, therefore, constitute some of the major advantages for industrialization which are offered by densely populated regions, in particular their urban areas.
2. The main paper, of which this is a summary, considers in particular:
 - (a) The comparative advantages of densely populated areas (i.e. from the points of view of markets, transport and public utilities, physical limitations, demography, industrial institutions and governmental relations;
 - (b) The approach towards a geographically balanced development of industrial growth.
3. In many ways, the densely populated areas perform a pivotal role in the modernization and development process of developing countries. This role may relate, in the first place, to continuation (or revitalization) of the traditional leadership of the areas concerned in the fields of commerce and transportation, and which must now absorb, adjust and integrate itself with the requirements and vitality of modern industrial technology. Secondly, the role of these areas may concern the development of new nuclei for industrial and economic growth. These areas often have to perform also a vital function in the development of external industrial contacts, such as the inflow of new technology and investments, as well as in the exchange of industrial goods.
4. For purposes of illustration, the paper refers to selected industrial development experiences in the urban agglomeration of West-South-Holland (including the cities of The Hague and Rotterdam) and to similar examples in developing countries.



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GENERAL STRUCTURAL ASPECTS

1. Dense population concentrations in relatively few parts of the country - often covering, in the aggregate, even less than 10 per cent of the country's total area, but more than half of its population - characterize the economic-geographic structure of many developing countries. In certain countries, there may be found large, sparsely inhabited regions with rich mineral deposits or other unmistakable potentials for developing into future industrialized areas. These developing countries have the potential for developing rather rapidly a geographically balanced economic structure. In other developing countries, however, extensive infrastructure development would have to precede eventual industrialization of less populated areas. Availability of a relatively well-developed infrastructure and availability of various institutional facilities, therefore, constitute some of the major advantages for industrialization which are offered by densely populated regions, particularly its urban areas.
2. In many ways, these urban areas perform a pivotal role in the modernization and development process of developing countries. From the point of view of industrialization and economic physical planning, it generally would be advantageous if the approach in the densely populated regions could be related to geographical entities covering major urban agglomerations with rural areas logically grouped around them. Bombay and Bangkok and their environments are typical examples of such areas in Asia; Cairo in the Middle East; Lagos in Africa; and Sao Paulo in South America. Similarly, the triangular agglomeration covering The Hague, Rotterdam and environments is such an entity. It is part of a larger con-urbanization also comprising Amsterdam, its surrounding towns and the coastal steel city of IJmuiden.
3. The city of The Hague is situated at the apex of the above-mentioned triangle-shaped agglomeration. It has as its base the river area, extending from Rotterdam towards the North Sea (also known as Rijnmond, i.e. "Rhine-mouth" area). It encompasses in its midst the town of Delft as a major centre of science and technology and the horticultural area of Westland. This triangle-area

belongs to the western part of the province of South Holland and will be referred to hereafter as the West-South-Holland area. The annex to this paper contains a detailed description of this area as background for certain references made in subsequent paragraphs.

4. In the map below, the densely populated areas in the developing regions of the world are shown. The previously mentioned agglomerations, with the exception of Lagos, belong to cities with more than one million inhabitants, of which there are now forty to fifty in developing countries. A significant part of the population lives in cities ranging in size from 100,000 to one million inhabitants. From the industrialization point of view, these medium-sized cities are also of great importance, especially when their development can be related to a geographically dispersed pattern of industrial specialization and for which these urban economies could provide a natural framework. This pattern, of course, may also extend to smaller cities, e.g. of up to 15,000 - 20,000 inhabitants. These smaller cities may also be selected with a view to stimulating the industrialization of densely populated but predominantly rural regions, as well as serving as a preventive measure against excessive migration movements towards the large cities.

COMPARATIVE ADVANTAGES OF DENSELY POPULATED AREAS

Market aspects

5. Densely populated areas are natural markets for consumer products. The great majority of the higher income groups live in the urban areas, and the traditional market places and other centres of distribution and the retail trade are situated in these areas. Construction activities and various types of services in the tertiary sectors provide further market potentials, which are not found in such a concentrated form elsewhere. With the raise in the standard of living, a more discriminating taste for better quality goods is also likely to develop first in these urban areas, and thus provide, from a marketing point of view, a continuous and expanding stimulus to the country's industrialization

process. In this manner, traditional centres of commerce, such as the above-mentioned large cities and also smaller areas -- the Yoruba-city of Ife in Nigeria, for instance -- continue to perform a leading economic role in the modern era of technology and industrialization.

Transport and utilities

6. Urban agglomerations at highway or railroad junctions and ports provide, in addition to a local market, obvious advantages from the points of view of product distribution and supply of materials. Furthermore, the existence of public utility systems facilitates the provision of electric power and water supply, for which special provision often has to be made in other regions of developing countries. However, inadequate capacity of public utility systems is a problem which frequently has to be faced in urban areas. In certain instances, urban expansion may even have reached the point of depletion of potential reserves, resulting in additional restrictions on industrialization possibilities. Such a situation, for example, has to be confronted in connexion with the water supply possibilities in Mexico City and other large cities located on upland plateaus.

Land

7. Land factors very often are major handicaps for urban industries. These may concern inadequate expansion possibilities or an old (historic) location which does not fit into the present and future urban structure. Relatively high land prices and zoning controls are other typical industrial disadvantages connected with a mid-city location. In this respect, the reconstruction experiences in the West-South-Holland area may be of special interest, as they include city modernization programmes based on the gradual transfer of industries from mid-city locations and the rebuilding of war-damaged Rotterdam.

Manpower and demographic aspects

8. In contrast to the situation in the Netherlands and Western Europe, densely populated areas in developing countries do not face a labour shortage; on the contrary they have a large labour surplus which will have to be absorbed as much

as possible by industrialization. This pressure for employment opportunities is aggravated, in many instances, by migration from rural areas, a condition which has reached extremely grave proportions, for example in Calcutta.

9. Preventive measures should be taken in time to obviate the possible stifling of the important industrialization potentials of these urban agglomerations. An integrated planning approach, also covering the surrounding rural areas and towns in the vicinity, is desirable. Such an approach would make it possible to anticipate all development requirements in a comprehensive way and would also permit the application of such unique solutions as were undertaken in the Greater London area, where at an hour's travelling distance a series of selected small villages were developed into new industrial towns with projected populations of more than 100,000.

Supporting institutional facilities

10. The availability of educational and industrial training facilities is a distinct advantage, which urban agglomerations can offer and utilize to prepare manpower resources for industry. These supporting technical facilities may, in larger agglomerations, also include research and other specialized services, which more technologically advanced types of industry may need. Accessibility to risk and development capital is another major industrial facility which urban areas the world over are generally in a better position to offer than rural areas. This situation is even more pronounced in developing countries, where industry is a relatively new element in society and where the practices of long-term industrial investment have not yet fully matured. In this connexion, the significant development role which banking corporations undertake in various Latin American countries, and similar functions performed by special industrial development banks, may be recalled.

External economic contacts and industry-government relations

11. Large agglomerations also serve as major centres of economic contact with the outside world. From these contacts, the most important agglomerations achieve a cosmopolitan atmosphere which, in turn, is attractive to foreign enterprise.

12. Bombay, India, and Sao Paulo, Brazil, are typical examples. Both cities hold the major share of all foreign industrial investments in their respective countries, in spite of the fact that they are neither national capitals nor seats of government. The impressive array of foreign industries and joint ventures in their suburbs, representing substantial investments and advanced technologies, are major contributions whose significance for the national economy is, even for these large countries, of the first order. The two cities are also major ports for exports and thus perform a vital role in the outward flow of locally produced goods.

13. Capitals such as Bangkok, Cairo, Lagos and Caracas provide, in addition, opportunities of direct contact with the government administration. In this connexion, the more comprehensive development role of Governments in developing countries should be recognized. These situations lead to a very centralized geographic concentration of major industrial, economic and political power. In such cases, in order to obtain an appropriate balance with other parts of the country, a deliberate and strong economic decentralization policy is often necessary from a long-term point of view.

GEOGRAPHICALLY BALANCED DEVELOPMENT OF INDUSTRIAL GROWTH

14. The important comparative advantages of densely populated areas will have to be co-ordinated with the industrial possibilities in other parts of the country. These planning aspects are of interest to industrially advanced and developing countries alike. However, the differences in economic structure, some of which have already been touched upon in the previous chapter, require different approaches. In many developing countries, industrialization must, for instance, heavily stress the development of technical skills and utilization of existing resources. In industrially advanced countries, more urban market requirements commensurate with a higher degree of affluence, may sometimes play a prominent role. However, the post-war reconstruction of Rotterdam (see annex on West-South-Holland area) demonstrates clearly the important role that unique geographic advantages continue to play in the industrialization process.

15. The development of a twenty-year master-plan^{1/} for industrial estates on the Island of Taiwan, Republic of China, may serve as an example with reference to a developing country. It should be noted that this island is in area and population roughly the same as the Netherlands (area about 35,000 sq.km., population 12-13 million inhabitants). However, owing to its mountainous structure, only thirty per cent of the land on Taiwan is arable, causing an extremely high population density of more than 1,000 persons per square kilometre of arable land. Moreover, a high rate of population increase exists. This situation makes it imperative to adopt an integrated approach towards physical, social and economic planning.

16. As part of the above-mentioned master-plan, some demographic estimates were made. These indicated the need for creating 500,000 new industrial job openings in the period 1960-1980, requiring the development of about 10,000 hectares of new industrial land. This objective, if wisely followed, could give an immense impetus to Taiwan's economic and industrial development. On the other hand, if the use of new industrial land were allowed to develop at random, it could cause serious distortions in Taiwan's social-economic structure.

17. Strong industrial concentrations in the island's capital, Taipei, and its vicinity already exist, giving it a sort of "primate-city" status. Deliberate decentralization of industries to other areas has therefore been considered of vital importance. More specifically, ten objectives could be pursued in Taiwan for implementation of a long-range programme of industrial estate development. These ten objectives, which can be broadly classified in two groups are:

Objectives I-IV based on development of the city and transportation network

I. Planning of two con-urban agglomerations, in the Taipei-Keelung area of northern Taiwan and in the Kaohsiung area in the south, respectively, with the latter, in particular, to include new heavy industries.

^{1/} Prepared by a Sino-European team of experts under the guidance of Yap Kie Han, Director of the Centre for Management and Industrial Development, Rotterdam, and member of the Board of Foundation Development Associates, under whose auspices the study was undertaken.

II. Urban planning of other towns. It is estimated that about 55 to 60 urban centres have the potential to become, by 1980, industrial locations of some significance.

III. Development of inland transportation centres. Apart from town areas, it would be desirable to give special attention to the development of industry in a few other locations with specific advantages from the point of view of developing the highway and railway network.

IV. Ocean harbour development, which is of special importance to Taiwan's island economy. Each of the three harbours has its specific characteristics and the relationship of the industrial estate to harbour development has been considered separately in each case. Special mention may be made of the southern harbour of Kaohsiung, which has the best facilities for import of industrial raw materials, such as aluminum, oil, iron ore, etc. Besides the previously mentioned designation of heavy industry, this area is particularly suitable for a Free Trade and Processing Zone. (In 1966, the Kaohsiung Export Processing Zone was formally opened.)

Objectives V-X oriented towards development of various resources

V. The development of industrial estates (i.e. auction, cold storage, fish preservation, processing etc.) adjoining selected existing fishing harbours in support of Taiwan's rapidly expanding fishing industry.

VI. The development of rural industrial estates, which is particularly important in order to raise the standard of income and create a greater impetus to economic development in predominantly agricultural areas in mid-Taiwan.

VII. In support of a more intensive exploitation of Taiwan's rich forestry resources, it would be appropriate to establish at certain key areas specialized timber industry estates.

VIII. Special estates are desirable as locations for Taiwan's rapidly growing chemical industry and to facilitate the effective utilization of Taiwan's coal and natural gas resources.

IX. A function similar to that in objective VIII could be performed by industrial estates for the exploitation of other natural resources, such as Taiwan's silicate, marble and mineral deposits.

X. The development of upland areas is another challenging task to which small-sized industrial estates could contribute. This task is combined with the development of forestry-based industries (see objective VII), undertaken as part of a larger development project, e.g. the construction of a cross-mountain highway or hydro-electric power project.

18. The above ten types of objectives clearly illustrate the many-sided functions which industrial estates can carry out in a country's economic development, i.e. to bring order in the physical appearance of crowded areas, to strengthen the functional effectiveness of harbours and other locations of critical importance to the national economy, to open the way to fuller exploitation of available resources, and to contribute towards a regionally balanced economic development.

SUMMARY

19. The specific characteristics of densely populated areas have been considered, in the preceding text, from the points of view of markets, transport and public utilities, physical limitations, demography, institutional and governmental relations. These aspects determine to a large extent the role which these areas can play in the industrialization process of developing countries.

20. This role may relate, in the first place, to continuation (or revitalization) of the traditional leadership of the areas concerned in the fields of commerce and transportation, which must now absorb, adjust and integrate itself with the requirements and vitality of modern industrial technology. Secondly, the role of these areas may concern the development of new nuclei for industrial and economic growth. These areas often have to perform also a vital function in the development of external industrial contacts, such as the inflow of new technology and investments, as well as in the exchange of industrial goods. To prevent over-concentration and its undesirable effects, the development of these densely populated areas must be balanced with development of other parts of the country. These aspects were all involved in the growth throughout the past few centuries of the West-South-Holland area, and have culminated in its post-war reconstruction. This paper has referred in particular to the aspects of industrial estate development, its resemblances and differences in similar areas in developing countries.

ANNEX I

The West-South-Holland Agglomeration

Its contemporary industrial evolution and physical planning

Demographic setting

1. The West-South-Holland agglomeration is shaped like a triangle, with the city of The Hague (seat of Government) at its apex, the city of Rotterdam at the south-east corner and the Rhine estuary at the south-west. The Hague is situated in the western part of the Province of South Holland, Netherlands. The agglomeration comprises the major areas shown in the table below.

Table 1

Major areas of West-South-Holland agglomeration

Part	Land area (sq.m.)	Population (1,000 persons, 1966)	Pop. density persons/sq. km.
Municipality of The Hague and its suburbs	176	734	240
Municipality of Rotterdam, industrial and harbour areas along the Rhine mouth	517	1,026	195
Town of Delft (centre of science and technology)	26	78	}
Horticultural area of Westland	136	78	
Other areas	183	51	
Total agglomeration West- South-Holland	1,039	1,967	190

2. Industrial employment in the different localities varies between 25 and 50 per cent of total employment, with an average of about 35 per cent for the whole area. A full-employment situation has existed throughout the post-war period, with a substantial number of migrant workers (including foreign labour).

Brief Area Descriptions

Municipality of The Hague and its suburbs

3. This sub-agglomeration covers the city of The Hague, its beach resort of Scheveningen and the suburban areas of Leidschendam, Rijswijk, Voorburg and Wassenaar. The Hague is the seat of the national Government, though in a formal sense Amsterdam is the capital.

4. Industry is chiefly composed of medium-sized metal-fabricating, building, food, graphic and other light industries, which in terms of employment is second to the tertiary sector.

5. The traditional importance attached to inland water transportation is the reason that in the latter half of the nineteenth century, attention has been given in The Hague to physical planning of special sites for industrial and warehousing purposes. Population growth, which expanded in the municipality of The Hague itself from 100,000 in 1875 to 500,000 in 1939 (the year preceding the involvement of the Netherlands in World War II) and subsequently to 600,000 in post-war years, has gradually brought about co-operation with suburban municipalities in the planning of industrial estates. This has resulted, among other things, in the creation of an inter-municipal authority for establishment and administration of the Plaspoelpolder estate in the southern suburbs of The Hague.

Municipality of Rotterdam, industrial and harbour areas along the Rhine mouth

6. This sub-agglomeration covers the city of Rotterdam, and the total area extending along the last 35-kilometer stretch of the Rhine mouth. In this area, the towns of Schiedam, Vlaardingen, Maassluis and Moek van Holland are situated, as well as the Rotterdam-Europort-harbour complex.

7. The latter complex occupies a unique position on the northwestern part of the European continent. Through its location on the Rhine estuary, it is the main water transport artery extending towards the Ruhr area, the central and southern parts of Germany, as well as Switzerland.

8. Moreover, in this area, it is the only harbour along the North Sea where giant oil tankers and bulk carriers of 200,000 tons and more can enter. This unique facility led in the post-war years to the development of a huge refinery complex and industrial area. The city of Rotterdam itself was heavily damaged during the Second World War. In the post-war city, reconstruction industrial estate planning could therefore be directly envisaged in suburban locations, as complementary to the industrial development around the harbour.

Delft, Westland and other areas

9. Delft, a city rich in historical tradition, was chosen in 1862 as the seat for a Polytechnical Institute. This institute has developed in the past century into the major centre of science and technology in the Netherlands, with a current enrolment of more than 9,000 engineering students in twelve departments. It also houses numerous industrial research establishments, with a total staff of several thousand scientists. To the south of The Hague and to the west of Delft, there is a horticultural area with about two thousand hectares of glass-covered area. It is a major supplier of vegetables for the urban agglomerations and for export.

10. The West-South-Holland agglomeration further includes a pasture and agricultural area which is part of a "green centre". This green centre is enclosed on the west by the described agglomeration and on the north by the con-urban grouping of Amsterdam. It adjoins at the south-east with the pasture and orchard area in the middle of the Netherlands extending along the banks of the Rhine and the Meuse rivers.

Selected aspects of industrial development and physical planning:

Effect of legislative measure on area planning.

11. In 1901, the Dutch Parliament passed the so-called Housing Act, which required the municipal authorities to introduce building regulations. This legislation also gives the municipalities the power and obligation to order building improvements, including the rights to proclaim old dwellings unsuitable or unfit for human use and to acquire land by expropriation. Municipalities with more than 10,000 inhabitants were further required to draw up master-plans.

12. The above measures or similar ones have been taken in the past decades in various municipalities. It should be noted from the attached chronological record for The Hague (given in annex II), that, as early as 1858, a municipal committee to prepare building regulations was established. The municipality of The Hague expanded rapidly, as shown by the number of inhabitants which doubled from 100,000 in 1875 to 200,000 in 1899, shortly before Parliament passed the above-mentioned Housing Act. The early beginning of such measures of public administration facilitated the physical planning of the city. The first master-plan for The Hague was adopted in 1913. Spurred by the rapid economic and demographic developments of the mid-1920's co-operative efforts were subsequently extended to all of the densely populated areas of West-South-Holland. These regional efforts were particularly important in the period after World War II.

13. Parallel with these developments in the field of physical planning, complementary measures were undertaken in the financial field to prevent land speculation and to provide public authorities with the financial means to execute projects.

Transfer of industries from mid-city locations

14. The industrial estate Plaspoelpolder, situated in Rijswijk, a southern suburb of The Hague, is a typical example of an estate established to provide transfer facilities for industries with a mid-city location. The need

for such a provision has been referred to earlier (paragraph 5 of this annex). On the basis of a survey undertaken in the immediate post-war years, quantitative estimates were made. The plans for the Plaspoelpolder estate were subsequently conceived and formally approved in 1953. In the spring of 1955, construction was started on the site, which covers 95 hectares gross (55.6 hectares net). By 1963 (ten years after its actual start), about 25 hectares were sold or leased and a total of 3,655 persons were employed in the industries on the estate. In the following table, the composition of the estate is compared with the estimates of the survey and the projections made in post-war years (see table below).

Table 2

Comparison of composition of Plaspoelpolder estate in 1963
 with estimates made in 1947

Branch	Plaspoelpolder estate (1963)		The Hague Total			
	Persons	%	Survey 1947		Projection for 1970	
	Persons	%	Persons	%	Persons	%
Metal industry	1,900	55	13,200	46	21,250	53
Food, paper-products, wood-working, chemical (incl.lab.)	1,530	45	10,950	39	14,450	36
Garments and textiles	--	--	3,150	11	3,700	9
Ceramics, building and allied products	10	--	1,150	4	950	--
Total Mfg. Ind.	3,440	100	28,450	100	40,350	100
Trade, transport and services	215	--	45,300	--	73,550	--
T o t a l	3,655	--	73,750	--	113,900	--

Source: Plaspoelpolder data, Estate administration.
 The Hague Total, National Bureau of Physical Planning.

15. It is interesting to note that the estate in its first decade particularly attracted the metal industry, which has a positive outlook of growth. The second group of industries includes a chemical research laboratory (600 persons) and the actual number of persons employed in manufacturing industries was only 930, or 27 per cent of the total. In the planning of the estate, some limited provisions were made for advance construction of buildings, for rent or lease, to light and smaller industries. An unexpectedly large demand occurred, exceeding by several times the available facilities. This factor probably influenced the relatively low representation of light industries in the above structure.

Development of Pernis-Botlek oil refinery and petrochemical complex

16. While the dense population and full employment warrant the geographical dispersal of industries to areas outside the West-South-Holland agglomeration, utilization of the unique harbour facilities of the Rhine estuary for heavy industries is the major focus of Rotterdam's industrialization. This aspect is impressively illustrated by the post-war development of Rotterdam's oil refinery and petrochemical complex. Special reference will be made to the Pernis-Botlek complex, which covers three special-purpose petroleum harbours and related chemical industry facilities in the Rotterdam area. Two more petroleum harbours in the so-called Europort area are in process of development.

17. Construction of the first special-purpose petroleum harbour was begun in 1929, and by 1938 a total area of 180 hectares was utilized by oil refineries. A further expansion of 525 hectares was immediately foreseen but as the result of World War II, this project could not be completed until 1955. This expansion was eastward, and inland, and is situated at Pernis, located about 20 kilometres from the coast. It allows for tankers of 40,000-50,000 dwt. The combined total of the oil refinery capacity in this area is 20 million tons a year. Spurred by the trend towards greater use of oil as industrial fuel, the development of larger tankers and the high growth

rate of petrochemical industries, further extensions were planned in the immediate post-war years.

18. This extension is known as the Botlekplan. It extends westwards, towards the sea, and includes the construction of a third petroleum harbour (accessible to 60,000-ton tankers, 8-million-ton refinery capacity) and special harbours for chemical industries, a shipyard (capable of building 130,000-ton tankers and carriers), large grain and ore-storage and transportation companies. On the sea-coast and even projecting several kilometres into the North Sea, the fourth and fifth petroleum harbours are under construction. These harbours will be suitable for ships of 100,000 tons and larger.

Balancing urban and rural districts within the area and externally

19. The non-urban districts in the West-South-Holland area consist of two main parts: the horticultural area of the Westland and the pasture and farming land in the eastern part. In the Westland, urban expansion is making inroads on the horticultural land. Only limited facilities exist for industrialization, and establishment of new industries not directly related to horticulture are discouraged.

20. In the pasture and farming districts situated farther east, a similar policy of preserving as much as possible of the land for agricultural use has been adopted, although a series of small industrial estates are available throughout the area. These estates aim at fostering traditional local skills and at strengthening the local economic structure of villages and small towns. The development of Zoetermeer, 10 kilometres to the east of The Hague, may be mentioned in this connexion, as it somewhat resembles the planned growth of a new town. Transplanting industries from The Hague and the residential needs for commuters to The Hague are expected to provide the major stimulus to development of Zoetermeer from a small village to a town with ultimately more than 100,000 inhabitants.

21. Dispersal of industries from the West-South-Holland agglomeration (and also of the Amsterdam agglomeration) to other parts of the country has been a national policy for many years. Furthermore, Government subsidies for the cost of land and industrial buildings are applied to localities which are recognized as so-called "development nuclei".

Documentary references

22. In the preparation of this text on the West-South-Holland area, the following documents, among others, have been used:

- (a) Publications and maps issued by the Provincial Government of South-Holland on the West-South-Holland agglomeration and its major components (1947 through 1966).
- (b) Master-plan for developing the city of The Hague, Municipal Government of The Hague, 1948.
- (c) Publications and other documents issued by the Intermunicipal Board of the Flaspolder Industrial Estate.
- (d) Yearbooks on Harbour and Industrial Estate Development Programmes, issued by the Port Authority of Rotterdam and affiliated organizations.
- (e) All statistical material has been based on officially published data.

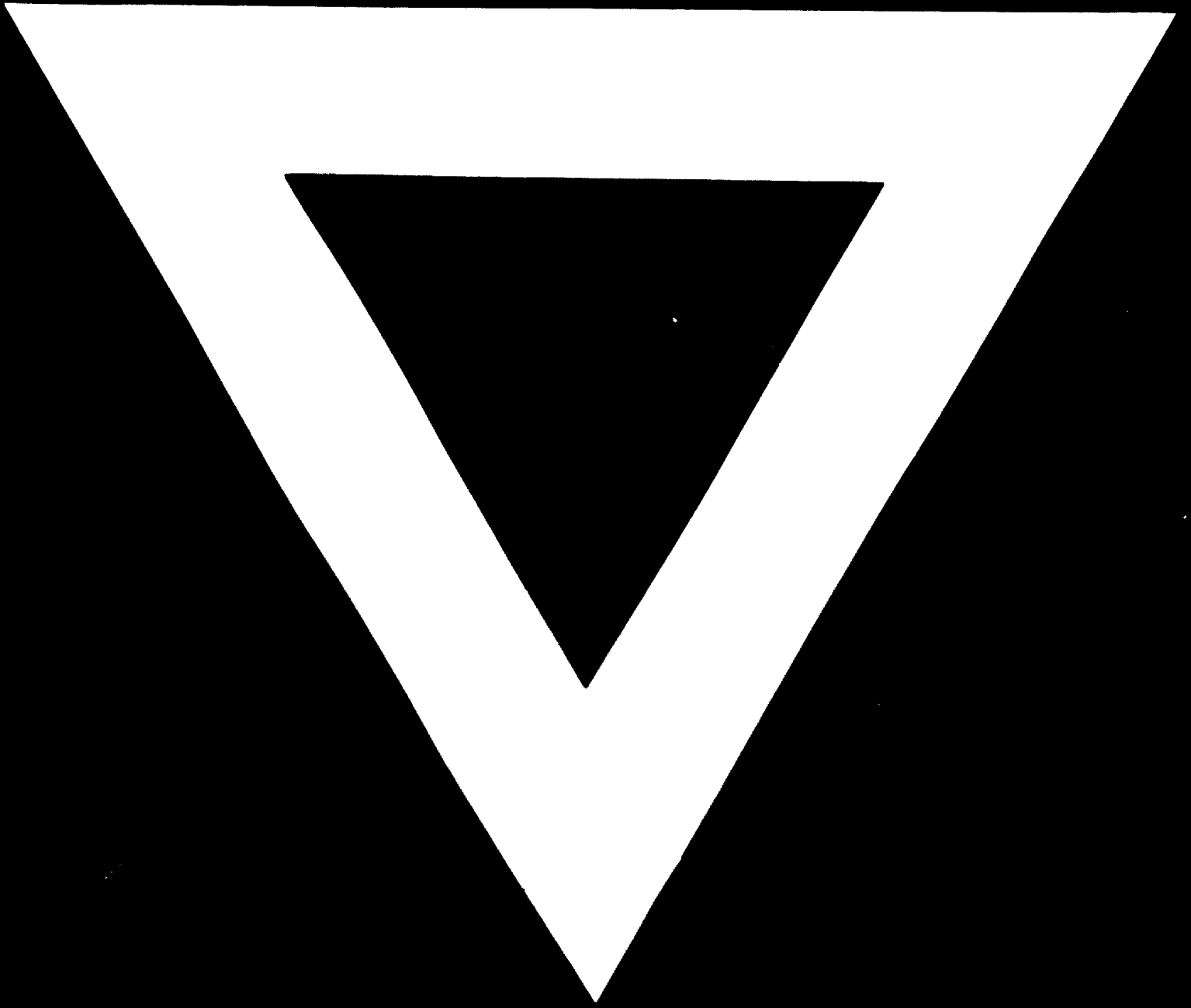
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Chronology of Town planning and Building Regulations
(with special reference to The Hague)

- 1858 - The City Council of The Hague set up a committee with the assignment to prepare a "Regulation concerning building activities in The Hague".
- 1860 - Some minor additions were made to the "General Police Regulation" in a chapter on "Provisions concerning construction and demolishing".
- 1871 - The "General Police Regulation" was revised and provisions concerning the height of buildings, the width of roads, etc. were added.
- 1875 - In this year, there were 100,000 inhabitants of The Hague.
- 1878 - The City Council passed the first "Regulation of the Building Police".
- 1899 - The population had risen to 200,000 inhabitants.
- 1901 - Housing Act passed by Parliament.
- 1907 - The Department of the Municipal Gardens was instituted.
- 1909 - The "Land Administration Department" was set up.
- 1912 - Change to the lease system.
- 1913 - The City Council adopted the first general plan of extension of The Hague.
- 1913 - 300,000 inhabitants of The Hague.
- 1919 - The Department for Town planning and Housing was instituted.
- 1920 - Revision of the Building and Housing Regulation, with revised provisions concerning the backpart of houses.
- 1923 - Addition of the village Loosduinen to the municipality of The Hague; the area enlarged from 4,200 to 6,600 hectares.
- 1924-1929 - Co-operative study by the Public Works of The Hague and Rotterdam of a regional plan for the triangle comprising The Hague - Rotterdam - Hoek van Holland (approximately corresponding to the West-South-Holland area).
- 1926 - The Hague had 400,000 inhabitants.
- 1931 - Revision of the Housing Act with arrangements for regional planning (Act of National Parliament).
- 1934 - The Provincial Council instituted a commission for a "Regional Plan Westland"
- 1939 - The Hague had 500,000 inhabitants.
- 1942 - The Provincial Commission published "The Analyses for a Regional Plan Westland". In 1945, the study material of the commission was destroyed in the war.

- 1946-1950 -- Planning reconstruction after the war.
- 1947 - Publication of a physical plan for The Hague and surroundings.
- 1952 - Start of studies for a new town at the east side of The Hague (Wilsveen, Pijnacker, Zoetermeer).
- 1955 - The Hague had 600,000 inhabitants.
- 1955-1956 - Inquiry of the space requirements of enterprises and offices.
- 1958 - The Governmental Department for the National Plan published a report on "The Development of the Western Part of the country".
- 1961-1962 - Bills on Physical Planning and Housing were passed by the Parliament."
- 1965 - The Provincial Government of South-Holland approved the Regional Plan for the Agglomeration of The Hague.





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