

Rural Industrialisation and Industrial Dispersion with the Help of Modern Small-Scale Industries

Past Experience and Future Prospects in India *

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During the past decade small industry development has received increasing attention. In India a programme for an extensive development of small-scale industries was already launched in the mid-fifties. The measures undertaken were based on the recommendations of an international team of experts¹. The Industrial Policy Resolution of 1956 clearly indicates, that the disadvantages of industrial agglomeration and extreme urbanisation should be avoided "by the establishment of small centres of industrial production all over the country"². And the Indian Planning Commission, which has taken a very positive attitude towards the development of small-scale industries, wants to achieve, mainly with their help, the goal of a "balanced development of different parts of the country, extension of the benefits of economic progress to the less developed regions and wide-spread diffusion of industry"³.

We shall not try to analyse the ideas and motives which form the basis for such a marked predilection for small industry development in Indian planning circles⁴. Instead we shall concentrate on the discussion, whether or not the growth and

* The research, on which the present article is based, was undertaken in the years 1965–1967 with the help of a scholarship granted by the Government of India and the German Academic Exchange Service (DAAD). To a large extent the empirical investigations were carried out in West Bengal.

¹ Government of India, Ministry of Commerce and Industry, The International Planning Team, Report on Small Industries in India, New Delhi 1954.

² Government of India, Industrial Policy Resolution, New Delhi 30th. April 1956, in: Government of India, Ministry of Commerce and Industry, Small Scale Industries, Programme of Work for the Third Five Year Plan, Report of the Working Group, New Delhi 1959, p. 198.

³ Government of India, Planning Commission, Third Five Year Plan, New Delhi 1961, p. 142.

⁴ In my opinion there are two currents feeding the idea of small industry development:

(1) The Gandhian tradition (particularly important of course for the drive to develop village and household industries), (2) The arguments so aptly expressed by the Polish economist Wloszczoswski, who had a planned economy in mind when writing: "It is important to recognize that small industry is the first condition of immediately exploiting fundamental investments, investments which alone do not create national income, but only enable its creation by proper use . . . It therefore becomes more important to exploit them (small industries) immediately for production purpose. This can be done by creating a **network of small plants** which can be established **at once without excessive capital investments**. These plants can start the flow of goods and balance to some degree the **flow of money needed to finance fundamental investments** and can enable the additional accumulation of income to balance the public resources frozen in these fundamental investments." Wloszczoswski, St., Small Industry in Economic Development of Contemporary Countries, Stanford Research Institute, Menlo Park 1959, p. 40.

Undoubtedly similar ideas were and are current in Indian planning circles.

expansion of modern small industries can really contribute to a significant degree to industrial dispersion and rural industrialisation.

I Measures for industrial dispersion and small-scale industry development

"To use the medium of Industrial Estates for dispersing industries to rural undeveloped areas in order to raise their levels of improvement"⁵ and "to achieve decentralised industrial development in small towns and large villages through the instrument of Industrial Estates"⁶ is the economic policy which has been pursued in India during the past years. Industrial estates are thus intended to be the main medium in attracting small-scale industries to the villages and the countryside. There is no need here to discuss in general the advantages that small industries may derive from the construction of industrial estates⁷. The analysis of the factual development of the industrial estate programme in India will give some definite clues as to what industrial estates can and cannot do for small-scale industries.

The construction of industrial estates in India began at the end of the first Five Year Plan. While only 75 estates were finished by the end of the second Five Year Plan, the number trebled during the third plan. The number of factory sheds, however, increased less rapidly; an indication of the fact that more smaller estates were built in rural and semi-urban areas⁸. The number of rural estates functioning at the end of the third plan (1966) stood at 20 only; 20 more were completed but did not yet function, and another 25 were in the planning stage, due to be completed during the fourth plan period⁹. It is obvious that this small number of estates in a country like India can hardly make a significant contribution to rural industrialisation. Being much smaller than urban or semi-urban estates, rural estates rarely accommodate more than 10 to 20 sheds. Assuming that every establishment occupies one shed only and employs 10 to 15 workers on the average, we arrive at the figure of about 1,300 establishments in rural estates employing at best between 13,000 to 20,000 workers at present (1970/71). In comparison to the small-scale industries sector as a whole¹⁰, and especially in view of the open and hidden unemployment of millions in rural areas, these figures can be completely neglected. But even this very small contribu-

⁵ Government of India, Ministry of Commerce and Industry, Small Scale Industries, Programme of Work . . ., op. cit., p. 58.

⁶ Government of India, Ministry of Industry, Central Small Industries Organisation, Study of Industrial Estates, New Delhi 1966 (mimeographed), p. 8.

⁷ For such a discussion see Bredo, W., Industrial Estates. Tool for Industrialisation, Glencoe 1960.

⁸ According to the Indian definition 'rural' means places with less than 5,000 inhabitants, 'semi-urban' such between 5,000 and 50,000 inhabitants, and 'urban' above 50,000 inhabitants. (See Government of India, Ministry of Industry and Supply, Office of the Development Commissioner, 'Industrial Estates', Half-Yearly Progress Report for the Period Ended 31. 3. 1965, mimeographed, p. 9.)

It may be mentioned, however, that places falling under the Indian category of urban often lack many of the characteristics considered essential for urban places in Europe or America.

⁹ The number of planned rural estates increased to 96 by the end of 1966.

¹⁰ Small units employing more than 10 workers, but with a fixed capital investment of less than Rs. 500,000 employed more than 1.5 million persons in 1964.

Table 1

Factory Sheds, Units in Different Categories of Estates

		Rural Estates (18)	Semi-urban Estates (34)	Urban Estates (69)
		1	2	3
Factory sheds total	a)	253	726	3,006
Factory sheds occupied	b)	163	592	2,730
Percentage of b) to a)	c)	64.4%	81.5%	90.8%
Workings units total		60	262	1,737
Non-working units		28	60	360
Percentage of non-working units to total number of units		31.8%	18.6%	17.1%

Source: Government of India, Ministry of Industry, Central Small Industries Organisation, Study of Industrial Estates, New Delhi 1966, p. 7, 25. (Own tabulation)

tion cannot be expected by the rural estates programme, even if it is continued for some years to come. All the factory sheds in rural estates are not going to be occupied, as has been assumed in the above calculation, because entrepreneurs willing to start a factory in rural areas will be lacking. Table 1 shows that only 64% of the sheds in rural estates have been occupied. Even less will be functioning, for almost a third of the enterprises, to which sheds have been allotted, are not working. The results of the urban and semi-urban estates are much better in this respect. Of the available sheds 91% and 81% (respectively) have been occupied and only 17% and 19% of the companies, to which sheds have been allotted, are not functioning.

To conclude this short discussion on the merits of rural industrial estates, let me briefly describe the situation I met with in some of the estates:

- (1) The industrial estate at Saktigarh (West Bengal) is an excellent and definitely not untypical example for the unsuccessful attempt of giving growth incentives by building a rural estate. In completely rural surroundings, at a distance of two miles from the main railway line connecting Howrah (Calcutta) with Burdwan, the estate occupied only two companies, (one of them intended to leave). Of its 20 sheds 15 had been empty since the completion in 1959/60. Not only that there is hardly any return on the invested capital, the costs of maintenance have to be borne too.
- (2) A second rural estate at Baruipur (West Bengal), 15 miles south of Calcutta, showed a somewhat better performance. All its 22 sheds were occupied by eight companies, of which seven were working. During interviews several of the entrepreneurs, however, expressed their intention of returning to Calcutta as soon as possible. (Most of the companies had been located at Calcutta before the erection of the estate.) Nevertheless an extension of the estate has been undertaken. But all the 12 sheds were lying empty at that time (1967), because an adequate supply of electricity had not been secured. In view of the relative pessimistic outlook prevailing among the entrepreneurs of Baruipur, it seems rather doubtful, whether enough new entrepreneurs can eventually be found for the extension.
- (3) But also semi-urban estates often do not show a much better performance. Thus about one third of the sheds were lying empty in the industrial estate at Kalyani, originally intended to be a satellite city of Calcutta and to ease the industrial congestion there. The industrial base of Kalyani consists of two medium-sized factories (a textile mill

and a factory producing bicycle components). An enlargement of the industrial base due to the growth of small and medium enterprises has not taken place, however, during the last ten years, although relatively good traffic connections to neighbouring Calcutta ought to have made Kalyani attractive for industrial location.

This list of industrial estates, which have turned out to be unsuccessful, can easily be extended by citing examples from other states. Thus in Punjab, just to mention one more state, ohne third of the factory sheds in estates are not occupied¹¹, although the Punjab is considered to be a state, in which the small industries sector is well developed, relatively dispersed and not only concentrated at one or two places.

From the foregoing remarks it is obvious, that the rural industrial estates programme has been rather unsuccessful. A more detailed analysis taking into consideration the "capital/employment ratio", the capital intensity and the rent payable in rural industrial estates shows, that these estates cannot compete with urban estates¹².

The future development of the industrial estate programme

More than ten years have passed, since the industrial estate programme was launched. It is therefore appropriate to ask, how the experience gathered in the past (especially the negative experience with the insufficient performance of rural estates), will affect the future shape of this programme in India. In this connection it is the author's impression, that the Indian authorities responsible for the small industries programme are for one reason or another somewhat reluctant to learn by experience. One hesitates to point out mistakes and failures in the past, admitting them only in such general and vague formulations that the results of the programme are not completely satisfactory and that better progress ought to be made here and there. But it should be mentioned too, that there are some strong differences of opinion within the Indian administration. While members of the Central Small Industries Organisation (CSIO) unhesitatingly admitted the failure of the rural estates programme to the author, the Planning Commission expressed the opinion that the construction of rural estates — despite their directly uneconomic performance — may be desirable because of the external economies in the socio-economic sphere¹³.

In 1966 the Sub-Group on Small Scale Industries suggested the following programme to be implemented within a period of five years:

1. Construction of one industrial estate in all towns having a population of 50,000 and above, unless there is one already or a techno-economic survey reveals that the prospects are not favourable.

¹¹ See Government of India, Ministry of Industry, Central Small Industries Organisation, Study of Industrial Estates, loc. cit., p. 67.

¹² For a more extensive discussion of these aspects see Feldsieper, M., Zur Problematik der Entwicklung und Förderung des kleinindustriellen Sektors in Entwicklungsländern (Untersuchungen am Beispiel Indiens), Heidelberg 1968, p. 102 ff.

¹³ To the present author these effects seem rather vague and dubious as not a single effort has been undertaken to attribute any quantitative magnitude to them. Thus he seems justified in neglecting them altogether and in taking refuge to the actual results and the visible performance of these estates.

2. Construction of one industrial estate in almost all places having a population between 15,000 and 50,000¹⁴.

Due to the very unsatisfactory performance of rural estates in the past, the construction of new rural estates is not recommended by the committee. Secondly extensive techno-economic surveys are to be undertaken in order to avoid mislocation of industrial estates. If the recommendations made by the committee were fully implemented, about 800 new semi-urban and urban estates had to be constructed. Employment in industrial estates would then increase by 240,000 on the basis of the present average employment per estate, and the number of companies would rise by 14,000¹⁵.

It is almost certain, however, that the development of the industrial estate programme will not be as rapid within the next five to ten years as the figures mentioned above may indicate. For the amount of money allotted to the industrial estate programme will at best suffice to construct 200 to 300 medium-sized estates, just about as many as during the third plan. Due to the severe economic recession in 1965-67 and the subsequent postponement of the commencement of the fourth Five Year Plan (it was to be started in the spring of 1969, but postponed again because of the rejection by Parliament), it is somewhat doubtful, whether even this lower target can be reached. It seems, however, not too pessimistic a forecast to assume that the employment in industrial estates will increase to 120,000 to 150,000 by 1974; just a little more than twice the number of persons employed in 1966 (62,000). This figure may be further reduced, if the construction of rural estates is continued; a policy recommended by the Planning Commission¹⁶, in spite of the dissatisfying results achieved so far.

Industrial dispersion and the small-scale industries sector as a whole

So far we have dealt only with the effects of the industrial estate programme on rural industrialisation and industrial dispersion. It seems, however, pertinent to ask, whether the development of the small-scale industries sector taken as a whole has not led to increased dispersion of industries.

A complete and thorough analysis of this question covering the whole of India is impossible, as adequate data are not available. No information is available for small units not covered by the Indian Factories Act (factories employing less than 10 workers), and the data for the rest of the small enterprises are insufficient, for they are neither detailed enough nor do they cover a sufficiently long period. The data available for the whole of India, however, do definitely not permit the conclusion, that the development of the small-scale industries sector has led

¹⁴ See Government of India, Ministry of Industry and Supply, Report of the Sub-Group on Small Scale Industries, Delhi 1966, p. 152.

¹⁵ This contribution of the industrial estate programme to industrial employment cannot be taken as a net effect, for some of the enterprises in the estates are not new, but have only shifted from other places to the estates.

¹⁶ See Government of India, Planning Commission, Fourth Five Year Plan, A Draft Outline, New Delhi 1967, p. 247.

to a more balanced industrial growth. During the sixties the five most important regions in India¹⁷ have roughly kept their percentage share of total employment in small industries. Special surveys even indicate, that particularly growth industries within the small-scale industries sector have a much stronger tendency for geographical concentration¹⁸. As in the case of West Bengal the growth of small enterprises is often restricted to the centre of the region, thus accentuating the dangers of concentration.

The figures for the districts of West Bengal given in tables 2 and 2 a clearly indicate this tendency of industrial concentration¹⁹. The figures show that in 7 out of 16 districts the number of factories and workers has practically remained constant or decreased between 1960 and 1964. These districts never had an industrial base, they are completely agrarian and in comparison to the others further away from Calcutta. The new factories in these districts are mostly small establishments processing agricultural products. Three more districts show a moderate increase in the number of factories and industrial employment. But actually industrial development has been restricted to the five most industrialised districts neighbouring on Calcutta. The expansion of the industrial sector in these districts was not only absolutely but also relatively greater, although starting from a low base it would have been very easy for the backward districts to achieve high growth rates. Furthermore calculations show that the degree of concentration in industrial employment in registered factories (small and large sector together) and in unregistered factories (small factories employing less than ten workers) is almost equally high in the five industrialised districts²⁰. In addition the decreasing figure for the average employment per factory in some of the industrialised districts most probably indicates, that small

¹⁷ Andhra Pradesh, Tamilnad (Madras), Maharashtra and West Bengal have been taken as one region each. Punjab, Haryana and Delhi taken together form the fifth region.

¹⁸ See Directory of Small Scale Industrial Units Registered with the Directory of Industries West Bengal from 8. 4. 61 to 31. 3. 65, vol. I, II, III (revised), 8. 9. 65 and 6. 12. 65.

The percentage of small units from growth industries (i.e. rubber products, chemicals, engineering, plastic products, scientific instruments etc.) registered within Greater Calcutta and adjacent areas, a typical centre of agglomeration, is much higher than the average for all small units, and often approaches 100 per cent.

¹⁹ Two deficiencies of these figures must, however, be pointed out:

1. The figures include all factories. Direct effects of small industry development can thus not be measured exactly. But when taking into consideration that 80 per cent of the factories fall into the small industries sector, first conclusions about the general trend are permissible.

2. The figures include closed factories too. No data showing the geographical distribution of working factories alone are available. It is difficult to understand, why the office of the Chief Inspector of Factories is arranging the figures in such a manner. It is undoubtedly another indication, that the locational aspects of industrialisation do not receive sufficient attention, especially as this geographical distribution of factories is an unpublished by-product.

For our considerations the absolute figures are, however, less important than the rate of growth and the development in the individual districts. The factory figures of the more industrialised districts may include a number of closed factories, but in comparison to districts, where the number of factories is constant or even decreasing, one can conclude, that more factories were and are founded in the industrialised districts, i.e. that industrialisation takes place there only.

²⁰ See my article "Rural Industrialisation, Industrial Concentration and Small Industries", in: *Time and Trade*, Calcutta, February 1967, p. 2.

Table 2

The Growth of the Factory Sector in West Bengal According to Districts 1960-1964

Districts:	1960		1961		1962		1963	
	A	B	A	B	A	B	A	B
	1	2	2	3	3	4	4	5
1. 24 Parganas	1,718	352,163	1,843	355,140	2,020	385,656	2,230	403,323
2. Calcutta	553	22,923	575	23,162	586	23,359	619	22,947
3. Howrah	857	140,718	886	143,431	947	155,225	1,036	164,705
4. Hooghly	148	69,634	162	72,888	172	81,285	177	88,542
5. Burdwan	204	56,998	206	59,794	218	62,276	228	72,150
6. Nadia	21	1,784	25	3,249	30	3,348	45	4,872
7. Purulia	59	3,189	60	2,812	55	2,991	65	3,749
8. Bankura	61	2,786	64	2,870	70	3,030	72	3,055
9. Birbhum	84	4,463	81	5,040	80	5,533	81	4,822
10. Darjeeling	172	8,785	171	8,877	179	8,523	181	8,669
11. Jalpaiguri	224	20,207	227	20,488	233	20,027	234	19,508
12. Midnapur	106	17,102	108	16,972	113	17,070	119	17,380
13. West Dinajpur	34	1,684	34	1,695	35	1,491	35	1,822
14. Murshidabad	14	1,247	14	1,339	13	1,129	14	1,324
15. Cooch Behar	16	614	15	525	15	421	15	444
16. Malda	6	90	6	106	5	49	5	30

A = Factories B = Workers

Sources: Office of the Chief Inspector of Factories West Bengal, New Secretariat, Calcutta, unpublished notes for the years 1960-1964.

factories have taken an overproportional share in the industrial expansion of the last years.

Summing up we may conclude that small industry development has not contributed to industrial dispersion and the growth of backward areas. On the contrary the concentration and agglomeration around the metropolis Calcutta has been aggravated²¹. Naturally the development of small-scale industries in West Bengal cannot be taken as representative for the development in all other states in India. In my opinion, however, there can hardly be any doubt, that studies of the small industries sector in other areas will reveal a similar trend of locational concentration. For there is general agreement on the fact, that industrialisation in India in the past decade has made most rapid progress in and around the cities of Bombay, Calcutta, Delhi, Hyderabad and Madras.

II Why is industrial dispersion with the help of small industries impossible?

After having presented the most important facts regarding rural industrialisation and industrial dispersion in India, we must now turn to the reasons, why all efforts have

²¹ In the districts having a common boundary with Calcutta like 24 Parganas and Howrah, this concentration takes place in the areas bordering immediately on Calcutta. In his field studies the author could clearly recognize this development.

Table 2a

The Growth of the Factory Sector in West Bengal According to Districts 1960-1964

Districts:	1964		Percentage in- (de-)crease 1960-1964		Average number of workers per factory		Distribution of workers in per cent	
	A	B	A	B	1960	1964	1960	1964
1. 24 Parganas	2,372	425,777	38.0	20.9	205	179	49.99	49.86
2. Calcutta	637	22,455	15.1	-2.1	41	35	3.25	2.62
3. Howrah	1,091	172,042	27.3	22.2	164	157	19.97	20.14
4. Hooghly	193	97,178	30.4	39.5	470	503	9.88	11.38
5. Burdwan	234	72,044	14.7	26.4	279	307	8.09	8.43
6. Nadia	49	4,432	-	148.4	85	90	0.25	0.51
7. Purulia	67	3,708	-	16.2	54	55	0.45	0.43
8. Bakura	75	3,341	-	19.9	45	44	0.39	0.39
9. Birbhum	85	4,927	-	10.4	53	58	0.63	0.57
10. Darjeeling	182	9,078	5.8	3.3	51	50	1.24	1.06
11. Jalpaiguri	237	19,733	5.8	-2.4	90	83	2.86	2.31
12. Midnapur	121	15,339	14.1	-10.3	161	126	2.42	1.79
13. West Dinajpur	35	1,813	-	7.6	49	51	0.23	0.21
14. Murshidabad	14	1,475	-	18.3	89	105	0.17	0.17
15. Cooch Behar	13	504	-	-	38	38	0.08	0.05
16. Malda	5	34	-	-	15	7	0.01	

- basic figures below 100 (factories), below 1,000 (workers)

A = Factories B = Workers

Source: See table 2 (own calculations)

been in vain so far and further efforts will be useless in the foreseeable future. The analysis of these reasons will also give us a definite idea about the locational requirements of small industries. This will be important for the formulation of a development programme, which takes the locational aspects of small industry growth in India into account.

1. Rural and semi-urban areas usually lack the necessary minimum infrastructure, which is a prerequisite for the growth of (small) industries. Road and rail connections are insufficient. The supply of energy is not guaranteed. Without electricity the erection of small mechanised units is of course impossible. But electrification in itself is not a sufficient guarantee for stimulating small industry growth. More important is the cost of electricity; and higher cost in comparison to neighbouring urban and metropolitan areas may often diminish or even stifle tendencies for industrialisation²².

²² Especially in Kalyani (50 km from Calcutta) the author observed the influence of this factor. Entrepreneurs there complained strongly about the cost of energy, which is almost twice as high as in the Calcutta region. Calcutta and neighbourhood are supplied by the Calcutta Electric Supply Company, while the other areas are supplied by the State Electricity Board. In my opinion - although I was unable to analyse all the questions connected therewith - this difference in energy cost was another important factor strengthening the industrial concentration in and around Calcutta. And it almost seems, that the industrial belt around Calcutta almost coincides with the supply area of the Calcutta Electric Supply Co.

2. Furthermore all service institutions are practically non-existent in rural areas and villages. Banks, insurances, schools, hospitals etc. are either not to be found or their services are worse than in larger towns. But even more disadvantageous to small enterprises is the complete lack of repair shops and spare part and raw material dealers. In contrast to large enterprises, small industries cannot maintain repair shops and large inventories of their own; and they are thus dependent on such services in the neighbourhood²³. Especially the procurement of raw materials is often connected with a lot of difficulties, as the markets are only in the cities. And if the necessary supply has to be bought in the black market — to quite an extent a necessity for small enterprises —, it becomes even more important to be close to the source of supply.
3. The most important markets for small enterprises are in the towns. For their customers are either larger factories in the urban industrial areas or the consumers whose purchasing power is most concentrated and differentiated in urban areas. Rural location is, therefore, quite disadvantageous from the procurement as well as the sales point of view. In order to mitigate the negative influences of these factors, small industrial units willing to settle in rural areas, had to be given considerable subsidies, so that they might become competitive. Thus in addition to the village and cottage industries, which have so far been kept alive by legal interventions and subsidies, one more sector would emerge, which could ultimately survive by protectionist measures only.
4. A further disadvantage of considerable weight are the insufficient public services in rural areas. Under the present Indian circumstances this factor may possibly be decisive for the locational choice of small units. Raw material allocation, licences, credits, tax-concessions etc. are — under the present administrative set-up — often granted only after repeated visits. The more, therefore, the services of governmental institutions are required, the stronger is the influence of this consideration on the locational choice of the entrepreneur. This factor may ultimately dominate all others, for the small industrialist is not in a position to waste his time and money by long trips to places, where the relevant governmental institutions are to be found. The importance of this point is of course inversely related to the size of the enterprise.

Practically without any exception the above considerations apply to all rural areas and smaller towns. It is, therefore, not sufficient to abolish one or two of the disadvantageous factors in order to create a suitable basis for the location of small-scale industries. For this purpose an all-round development, which diminishes the negative influences of all factors concerned, is absolutely necessary. Such a development is not likely to take place in rural areas in India within the foreseeable future (i.e. within the next 10 to 20 years).

²³ See Dhar, P. N., and Lydall, H. F., *The Role of Small Enterprises in Indian Economic Development*, Bombay 1961, p. 24.

III Alternative locational solutions for the development of small-scale industries

Since industrial dispersion with the help of small-scale industries is not possible, it is now necessary to examine, which alternatives for the development of small-scale industries in India can possibly be pursued, if due regard is paid to the locational requirements of this sector. The following discussion will deal with two different plans. One of them has lately received increasing official attention²⁴.

Small-scale industries and the development of growth centres

Although the idea of regional centres and central places is not of recent origin, it is probably mentioned for the first time in the Indian context by the international group of experts, who analysed the small industries sector and the official Indian development programme in 1963²⁵. In their report this group indicates only, that a limited number of larger and smaller towns should be selected as potential "growth points". Nothing is said about the exact size of these "growth points" and the criteria for their selection. On the basis of this recommendation the official Indian concept evolved, which is most clearly expressed by the Sub-Group on Small-Scale Industries. "We endorse the suggestion that future efforts at special decentralisation should aim at creating clusters of efficient modern small industries at certain selected 'growth centres'. While the selected centre should not be a big urban area it should not also be too small a village. It should act as a 'frontier checkpoint' for migration from rural to urban areas and, thus, provide all modern, urban amenities of live immediately. In view of this, we feel that towns with a population between 10,000 and 20,000 will best serve as 'growth centres' **provided other conditions like water, power, transport etc. are available or can be quickly provided.**"²⁶ In view of additional factors the committee finally recommends to select all places with a population between 15,000 and 50,000 as growth centres and develop them during the fourth Five Year Plan. According to this recommendation about 700 places had to be developed.

It is now pertinent to ask, whether the development of these growth centres is likely to bring about an accelerated growth of small industries and a changing pattern of industrialisation in the near future. The answer has to be negative.

²⁴ A third alternative, the district development programme, suggested by the Small Industry Extension Training (SIET) Institute Hyderabad, is not discussed here for two reasons:

1. Although the programme contains many interesting and promising aspects, its success, if introduced, seems rather doubtful to the author.
2. Official Indian policy has not taken much notice of this programme.

For further information about this programme see the publications of the SIET Institute: Lynton, R. P., and Stepanek, J. E., *Industrialisation Beyond the Metropolis. A New Look at India*, Hyderabad 1963 (mimeographed), and Chebi, V., and McRobie, G., *Dynamics of District Development*, Hyderabad 1964 (mimeographed).

²⁵ See Government of India, Ministry of Industry, Report of the International Perspective Planning Team, *Development of Small-Scale Industries in India: Prospects, Problems and Policies*, New Delhi 1963, pp. 124, 131.

²⁶ Government of India, Ministry of Industry and Supply, Report of the Sub-Group..., loc. cit., p. 103.

1. The Indian places of the size mentioned above (15,000 to 50,000 inhabitants) lack much of what is considered essential for a town in Europe and America. Indian places of this size are often only large villages. This is clearly shown by the committee's remark, that the supply of water and energy and transport connections must be adequate²⁷.
2. Many of these growth centres do not even have a moderate industrial and commercial base. The service institutions (banks, insurances, repair shops etc.), which are so essential for small industry development, are very few in number in these places. The problems on the procurement and sales side are hardly less than in completely rural areas. Most of the Indian growth centres can by no means be characterized as "central places", because everything that is characteristic of these "central places" (up-to-date supply of water and energy, sewerage, adequate roads, modern housing, various training and teaching institutions, service institutions, and important governmental offices), must still be built up in the Indian growth centres.
3. The proper extension and development of these growth centres will at least take four to five, if not more years, because the realisation of a sensible development programme can hardly be achieved in a shorter time under Indian conditions. The possible radiation of these growth centres would scarcely be felt before the end of the seventies. But even then the attraction of the cities and the metropolitan areas could be much stronger. Secretly the Sub-Group on Small Scale Industries seems to share this sceptical outlook, for it believes, that the success of the growth centres cannot be guaranteed, unless incentives like "a concession of rent for a period of five years, long-term finance at concessional rate of interest, supply of power at a subsidised rate, special price preference under Government Stores Purchase Programme, assured raw materials for a single shift working for five years etc."²⁸ are granted in addition to the general improvement of the infrastructure in the broadest sense.
4. On the basis of the present experience one can well predict, that the period of subsidy will not be limited to five years. The programme for the development of growth centres will most likely suffer the same fate as the programme for rural industrial estates. Once the planning authorities realise, that the anticipated growth of small enterprises does not take place and that the few enterprises, which have come up, must be permanently subsidised, this development concept will be dropped too. However, until then valuable time has been lost without a sensible locational policy for small industry development.
5. The long list of subsidies clearly indicates, that the growth centres are from the economic point of view not at all suitable places for the development of small-scale industries. Therefore, one is even more surprised to learn, that by the second half of the seventies "each growth centre will have to provide accommodation for about a lakh (100,000) persons. We expect that these 'growth centres' will absorb the bulk of the population moving into urban areas in the next decade."²⁹

²⁷ See also Kapp's remarks on urbanisation in India. Kapp, W. K., *Hindu Culture, Economic Development and Economic Planning in India*, London 1968, p. 38.

²⁸ Government of India, Ministry of Industry and Supply, Report of the Sub-Group..., loc. cit., p. 105.

²⁹ *Ibidem*, p. 104.

This statement is really too phantastic! It implies that the size of the growth centres would double to quadruple within a decade, that they had to grow at an average annual rate of 10 to 30 per cent. In total the growth centres had to absorb a population of about 35 to 40 million, a figure which is not much less than the present urban population. It is needless to say, that small industry development in the growth centres will not be so overwhelming as to draw so many people into these places. The rural-urban migration can definitely not be checked by growth centres and small industry development, because the growth of this sector will be comparatively too slow and thus its absorption very limited.

Summarizing we may say, that growth centres in the Indian sense are in general not suitable for the location of small-scale industries. All these centres fall into the category "semi-urban". The performance of the small-scale industries was much better in these places than in purely rural areas. However, in comparison to urban areas small-scale industries in semi-urban areas fared worse. According to all available information urban areas can be said to offer the best prospects for small industry development. It is obvious too, that no sensible development policy, which wants to promote small industry and get its maximum contribution to economic development, can neglect the consequences of this result. It is rather to be regretted, that official Indian policy has not yet reconciled itself to this fact and still tries to "ban" small-scale industries from urban areas.

Small industries and town-centered industrialisation

J. P. Lewis was probably the first to suggest a town-centered industrialisation process for India³⁰. Such a policy avoids the fight against the impossibility of rural industrialisation on one hand and checks further agglomerative tendencies around the present metropolitan areas of Calcutta, Bombay and Madras on the other hand. It is well-known that increased urbanisation is connected with high costs. For that reasons alone rural-urban migration must be kept as low as possible. But it cannot be the task of modern small industry development to stop these migratory tendencies, because, as was already pointed out several times, rural location is not suited to modern small enterprises and the possible absorption of the small-scale industries sector would be too small in comparison to the expected migration. (A suitable policy towards the promotion and development of village and cottage industries is called for in this situation, but that is not the point of discussion here.)

If we take the Indian towns with a population of 100,000 to 1 million³¹, we get about 100 potential centres relatively evenly distributed over India, which are suitable for the location of small-scale industries, because these towns fulfill most of the conditions necessary for small industry growth. Many of them do not show much industrial activity so far. Thus there is hardly any danger of too much industrial concentration and agglomeration following such a development approach. If industrial develop-

³⁰ See Lewis, J. P., *Quiet Crisis in India, Economic Development and American Policy*, Washington 1964, p. 179.

³¹ Lewis, however, proposes places with a population between 20,000 to 300,000. In my opinion the limit of 20,000 is too low for urban areas in India, while the upper limit can be extended.

ment policy concentrates on these towns, a regionally unbalanced expansion of a few centres, as at present, could be avoided. Industrialisation would gain a foothold in practically all Indian regions, and the growth impulses emanating from these industrial centres would certainly affect surrounding sub-centres and rural areas positively and contribute to an accelerated economic growth. I do not want to go into details concerning the possible policy measures that can and must be undertaken to achieve such a town-centered industrialisation in India³², because such an analysis would go beyond the scope of the present essay. Suffice it to mention that policy measures designed for the small industry sector must take into account the development projects in the large-scale sector too. It is necessary and very urgent to develop a complete and sensible locational policy for the industrial sector as a whole. Such a task has been neglected so far in India. Decisions on location have been taken either haphazardly or due to political pressure, but hardly on the basis of an overall design, which takes into account the spatial effects of the development process.

In this connection it must be pointed out, that the growth of the small industries sector as a whole depends very much on the expansion of the small enterprises in the present metropolitan areas. Unless small industries can further expand in these areas, a significant growth rate of the small industries sector in India can hardly be expected³³. Thus economic policy must keep these metropolitan areas also attractive in the future. It could be objected, that further agglomeration in these areas would increase social costs immensely. This cannot be denied completely; but if the establishment of new enterprises and the expansion of old ones is restricted in these areas, a considerable reduction of the growth potential must be accepted.

But it cannot be a question of avoiding industrial concentration at all, because the industrialisation process in India has already brought about such (irreversible) concentrations. In our opinion it is not industrial concentration as such, which must be regarded as a disadvantage. Rather unplanned and uncontrolled agglomeration, so clearly visible in the industrial parts of Howrah and North Calcutta, has to be deplored. And here Indian economic policy really has to catch up with what has been neglected in the past. Whatever may be undertaken (building of industrial estates, creating industrial zones, improvement of transport facilities, housing areas, controlled development of the areas adjacent to the metropolis etc.), to change the chaotic agglomeration in the metropolitan areas into a more controlled concentration, will benefit small industry development definitely as much as most development programmes undertaken so far.

It is, however, doubtful, whether the planning authorities in India are fully aware of this fact.

³² See for instance the statements by Morse, E., and Staley, E., *Modern Small Industry for Developing Countries*, New York 1965, p. 312, which are relevant in this connection.

³³ Here the author's opinion differs strongly from Lewis' point of view, who wants to check the centripetal forces of the metropolitan areas by a rigid licensing policy. See Lewis, J. P., *op. cit.*, p. 198.