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EVALUATION REPORT ON INDUSTRIAL ESTATES NO. 14:
INDIA (MYSORE STATE) ^{1/}

by

N. Somasekhara

^{1/} Excerpt from Mr. N. Somasekhara's book "The Efficacy of Industrial Estates in India", reproduced with his permission.

The views and opinions expressed in this paper are those of the author and do not necessarily reflect the views of the secretariat of UNIDO.

107 units located in them. An equal number of comparable units (107) outside the Industrial Estates was carefully selected by him as a control. Though the composition of the sample and that of the control in regard to the types of industrial units did not match exactly as their total, the individual units in the two were carefully matched in regard to employment, product, location and total capital. The data were personally gathered and tabulated by Dr. Somasekhara.

The results were striking if not surprising. "It appeared, on the whole, that the technical efficiency of all the Industrial Estates except the Harihar Industrial Estate, was lower than that of the control blocks. As the productivity of labour was lower and the capital-output ratio higher, the capital-labour ratio was also higher in the industrial estates compared to their control blocks" (p. 45). To take the analysis further production functions were fitted to the data. The most interesting general conclusion from that analysis was that both in the Industrial Estates and the control blocks capital equipment seemed to be largely under-employed and in more than half the centres there was hardly any under-employment of labour.

The general conclusion of the study was that the Industrial Estates in Mysore State had not been a success. Their intended objectives like creating new small enterprises, industrial development of backward areas, rural industrialization, decentralization of industrial development, etc., had not been achieved.

These conclusions were by no means unique to this study, because similar conclusions had also been reached by other studies about Industrial Estates in India at that time. But what is unique about this study is that the author returned to the subject after a decade and carried out a resurvey to ascertain whether the passage of time had improved the performance of the Industrial Estates. In 1971-72 he covered the same 9 Industrial Estates in Mysore State and personally gathered data about 114 units in the Industrial Estates and 84 units outside them. In both cases, as far as possible, all the units included in the earlier study, that were still

FOREWORD

This study of the Industrial Estates in Mysore was undertaken by Mr. Somasekhara for a doctoral dissertation under my guidance. In its original form it won the doctorate for him and deservedly. That should ordinarily have been the end of the matter. But the Industrial Estates generally and those in Mysore particularly having aroused his intellectual interest continued to haunt Dr. Somasekhara. And so he undertook a resurvey of them ten years after the first survey to find out how his conclusions regarding Industrial Estates reached in his doctoral dissertation had stood the test of time, e.g., whether later developments had contradicted or corroborated them. He found that all his earlier conclusions held and unfortunately so, because his earlier conclusions were quite unfavourable to the Industrial Estates.

When the original survey into the working of Industrial Estates in Mysore was undertaken in 1961-62, the Industrial Estates were brand new in India and, as of all new things, many things were expected of them. Any investigation into them at that time, particularly if it reached unfavourable conclusions could have been dismissed as premature. In designing the investigation at that time it was realised that though it could not be entirely guarded against the criticism of prematurity every effort should be made to do so. Here originated the basic idea of the first survey that the study should not be confined to industrial units in the Industrial Estate but should be extended to comparable units (peer units) outside them but in the same locality, so that by a comparative study of the two groups the difference made by the Industrial Estates could be assessed with reasonable certainty. The central point of the first study was the comparative efficiency of the units in the Industrial Estates with reference to their peers outside.

Accordingly, in the first survey, Dr. Somasekhara covered all the Industrial Estates then existing in Mysore and covered all the

functioning were included in the sample. The mortality rate of industrial units was higher among non-Industrial Estate units than of those within. Suitable substitutes were found to replace the non-surviving units. All precautions were taken to ensure that the number of units investigated in the resurvey tallied reasonably well with the earlier survey at the aggregate, block, city and industry levels.

When comparisons were made between the data (at constant prices) of the benchmark (1961-62) and the resurvey (1971-72), it appeared that the real efficiency of the units as indicated by both technical and economic indicators, in both the Industrial Estates and outside, had declined during the decade. The productivity of labour had gone down. The rates of deterioration were consistently higher in the units in the Industrial Estates than in their peers outside. Over the decade, the output of units in the Industrial Estates had become more capital intensive while in the control blocks the opposite was the case. The conclusions of the economic analysis were underlined by a detailed financial analysis of the units in the sample. It showed that the units in the Industrial Estates were not financially viable. Those outside were. On the whole, the data of the resurvey endorsed the adverse conclusions about Industrial Estates reached in the benchmark survey.

The conclusions, though unfortunate, are well corroborated by the conclusions and Dr. Somasekhara has done everything in his power to make the comparisons over time as scientific as possible and to avoid, as much as is humanly possible, any preconceptions and prejudices. He deserves full credit for this very competent and objective study of Industrial Estates. If it helps in changing the relevant policies it will have fulfilled itself best. Even if it does not do that it will go down as a study of considerable academic distinction.

C/o Gokhale Institute of
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Poona-4.
1 June 1975.

N. V. SOVANI

PREFACE

This study is actually 'two-in-one', a benchmark study of Industrial Estates in Mysore conducted in 1962 and a follow-on of the same in 1972. It is an exercise in project evaluation, *ex post*. India has been one of those countries which has a comprehensive programme of industrial estates, a package programme and a prestigious scheme for the development of small industries, in the whole world. In India, it appears, they have come to stay. The results of this experiment in industrialisation are eagerly awaited by a number of developing countries. With the help of two-point-data, it has been possible to examine whether the industrial estates have delivered the goods. The scheme of analysis resembles a pyramidal structure; the viability of the units in the base, the viability of the estates in the middle and the viability of the programme at the Government level in the apex. Different sets of indices of performance have been devised for the purpose. Attempts have been made to separate the positive aspects of the programme from the negative aspects, to identify the causes of its very modest accomplishment and to suggest measures for the 'overhaul' of the programme. It is hoped that the study will provoke the people concerned to take a fresh look on the programme, will be useful for the proper formulation of the relevant policies and serve as a guideline for a more thorough planning of industrial estates in future.

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October 1973.

CHAPTER VII

CONCLUDING REMARKS

It may be interesting now to pull all the threads together by considering the different sets of indices and try to draw some conclusions. The industrial estates have not achieved many of the objectives for which they were intended, namely, fostering the development of small enterprises, industrial development of backward areas, rural industrialisation, decentralisation of industrial development and so on even after more than a decade since their inception.

7.1. *A Summary of the Findings*

With regard to the first meaning of fostering the development of small enterprises, there was no break through in the creation of new enterprises. Industrial estates had become a sort of a permanent settlement for small industries. All the units existing at the time of the benchmark study continued to stay. A unit making an exit from an industrial estate was almost unknown. With regard to the improvement of efficiency, even though the comparative indices of technical and economic efficiency between the industrial estates and their controls in the follow-on indicated positive results in favour of the industrial estates, the success was more apparent than real. The industrial estates had not become intrinsically stronger even after a decade. Amazingly, it appeared that the real efficiency of the units in the industrial estates as measured by the technical and economic indicators had gone down consistently. The productivity of labour had also gone down. The industrial estates had become relatively more capital intensive in output. These are some of the negative aspects of the programme. They have not been effective employment creators either. The rate of growth of employment

A Summary of the Findings

in industrial estates was relatively lower. Neither the gross output nor the gross earnings had increased at a faster rate than outside. With regard to the third meaning of fostering, something positive could be said. The industrial estates had sustained and nurtured the otherwise inefficient small enterprises which would have died a natural death. This appears to be a positive and fundamental contribution and achievement of the programme.

With regard to the secondary objective of industrialisation of backward areas, the industrial estates have not been successful to any perceptible degree, in establishing small enterprises in the area. The performance was not much different so far as the objectives of rural industrialisation was concerned. How about decentralisation objective? Shift of units from places of higher concentration was not only rare but also absent. Paradoxically, industrial estates could lead to industrial concentration rather than contribution to decentralisation.

The programme had not made a dent on any one of the following: Slum clearance, relieving cities of congestion and overcrowding and provision of employment opportunities of the type 'earn while you learn' to students of universities and polytechniques, which were some of the objectives tagged on to the programme. The industrial estates had scarcely led to any complementarity among the units worth the name. The industrial estates have not been economically viable.

All these inspite of the fact that the industrial estates had superior command over finance from both institutional and non-institutional agencies. But unfortunately this led to over capitalisation which became a curse on the industrial estates. It resulted in higher inventories and larger fixed investments. There was a slower turnover of financial assets in the industrial estates and a greater blockade of working capital resources. They had a higher cushion against sales which meant greater interest cost. The industrial estate units were less liquid, less productive and less profitable. The findings of the economic analysis with regard to the performance of industrial estates were corroborated by financial analysis and it reinforced that there were intrinsic financial reasons for the unsatisfactory performance of the industrial estates. They have not been financially viable.

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The programme of industrial estates has not been viable financially, from the point of view of the State Government either. Although, it appeared that the rent earnings were making a reasonable rate of return on the capital invested, it could have been improved further by reducing huge rental arrears from tenant industries, increasing recovery of arrears and cutting down the abnormal recurring expenditure. It appeared that there was no penalty for default of prompt rent payment. Neither did the arrears carry any interest. They amounted to corrosion of public funds. If huge rental arrears were the crucial factor in poor financial viability of the larger estates, the high incidence of vacancy of sheds was the bane of smaller estates.

The cost-benefit ratios indicated that the industrial estate programme in Mysore has not been worthwhile. Making them worthy depended on the recovery of rental arrears with interest and cutting down recurring expenditure substantially. All these called for prudent management practices in the estate administration. The indices of societal benefits dispelled the belief that industrial estates were economic employment creators irrespective of their location. It appeared that smaller industrial estates had higher social productivity of capital but they were more than nullified by other disadvantages and considerations.

There were some indications about the financial viability of the programme at the national level. The rate of repayment of the loans advanced by the Central Government from the State Government was not satisfactory and had deteriorated. The consequence was the high opportunity cost of committing limited funds to not so sound an investment programme, viewed strictly financially. This was besides the consequence of mounting interest cost for the state concerned. The roots of the solution may be traced to financial and economic viability of the units and the industrial estates, their scientific planning and prudent management, the scope for which is unlimited.

7.2. Why are Industrial Estates not a Success?

The industrial estates in Mysore have not been a great success. The failure of industrial estates is not peculiar to Mysore. They

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have not been a success in many other states if the pattern and their planning are any evidence. The success of industrial estates may be regarded as an unusual phenomenon. The concluding remarks, may, therefore, have a sort of general validity for the industrial estates throughout the country. Eventhough this study concentrated on whether the industrial estates were efficacious and not on why they were not efficacious, certain indications regarding the latter did emerge from the study of the former. An enquiry into the causes of inefficiency of industrial estates is much more difficult than the measurement of their efficiency. Causes have to be identified, isolated and due weights attached to each of them. One of the main reasons for the failure of the industrial estates seem to be lack of thorough planning. Careful economic analysis must be made before making location decisions. There must be a pragmatic approach at every stage rather than doctrinarism, if the objectives are to be accomplished. Industrial estates may fail not so much on account of errors in methods or principle but because of faults in application. Such a thing happened in Italy⁴⁷. The same might have been happening in India. Now an attempt is made to diagnose the probable causes.

(1) The location of the industrial estates were not preceded by any economic study. The availability of raw materials in the area which could be exploited, manual skill, market for the products locally, potential entrepreneurs, demand for manufacturing space (sheds), types of industries that could be accommodated taking into account the resource endowment of the area and the allied matters were not studied at all. Pre-location studies were conspicuous by their absence. The observations of the Selected Building Projects Team that "...only preliminary surveys of very limited character appeared to have been carried out more from the point of view of making an assessment of the potentiality of finding suitable tenants rather than the purpose of ascertaining the type of new enterprises or industries that could be established to ensure

47. Minisari Alessandri, "Some Controversial Questions Concerning Industrial Estates", *Industrial Estates in Asia and the Far East*, United Nations, New York, 1972, p. 416.

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a co-ordinated development as envisaged in the plan...⁴⁸ is very near the truth. The costs and benefits of alternative locations were not even imagined. The location of most of the industrial estates in their present places are devoid of any economic criterion. The Estates were not located after a preliminary economic study bringing out economic advantages and disadvantages.

(ii) The infrastructure of the industrial estates—the economic and social overheads—namely, public utilities within the industrial estate, transport, communications, banks and other financial institutions, educational institutions and polytechniques and industrial housing have either been absent or are not being properly developed in most of the places. This is especially true of the backward and rural areas like Gulbarga and Ramnagarani, respectively. This, perhaps, is the cause of the high incidence of vacancy of sheds in these industrial estates. The problem of industrialisation should be approached from all sides. The mere establishment of industrial estates alone cannot industrialise the country. It is one of the many instruments which can be effective only when all others are geared up. A decision to set up an industrial estate should be accompanied by a simultaneous decision to provide the necessary infrastructure.

(iii) The existence of infrastructure is a necessary but not a sufficient condition for the success of an industrial estate. The availability of enterprise, the preexistence of industries of all types and of all sizes or the presence of an industrial tradition as it may be called are important⁴⁹. An industrial estate cannot function in a vacuum and does not develop in a hollow industrial atmosphere. The absence of a pre-existent industrial set-up may be one of the reasons for the lack of success of many industrial estates, particularly those located at Hubli, Ramnagarani, Gulbarga and Mangalore. The social and economic environment was not

48. Government of India, Planning Commission, *Report of the Selected Building Projects Team on Industrial Estates*, 1959, para 4.1.

49. P. N. Dhar and H. F. Lydall, *The Role of Small Enterprises in Indian Economic Development*, Asia Publishing House, Chapter 3.

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taken fully into account in selecting industries for location in different estates.

(iv) The inadequacy of utilities, facilities and services within the industrial estates are noteworthy. Normally, nothing more than water and electricity are provided in these estates. One of the objectives of the industrial estate programmes in India is to provide common facilities and services. Common technical services (heat treatment, forging, electroplating, etc.) and commercial services (common purchase, common sale, common advertising, etc.) are not organised in most of the industrial estates⁵⁰. This is, perhaps, because of two reasons: (1) The industrial estates are small and accommodate a small number of enterprises and (2) the group is heterogeneous. Because of the first reason it would be uneconomical to organise common facilities and services for the use of a small number of units. Because of the second reason it would be almost impossible or at least difficult to organise common facilities for a heterogeneous group. Common facilities would just not be organised. There would be nothing in common between them. Are not the industrial estates in India exhibit pieces of the representative Indian small industry? All types of industries are taken in. However, the policies relating to infrastructure as well as provision of facilities by government agencies to units within the industrial estates were not based on any logical locational considerations.

(v) The enterprises in the industrial estates, generally, operate far below the level of optimum production—the least cost combination of inputs. The idle capacity is very high in the industrial estates, nearly fifty per cent, and that is perhaps due to the irregularity and inadequacy of demand. Failure to obtain

50. The Industrial Estates at Okhla (Delhi) and Jajindy (Madras) have been a success partly because these facilities are thoroughly organised. They could be thoroughly organised because of two reasons: First, the estates are big, there are large number of enterprises and it would be economical to organise. Secondly, the enterprises constitute a more homogeneous group.

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a reasonable market share and sufficient orders has been an important reason. As they do not hit the optimum, the cost of production per unit is uneconomical and this reflects in their poor performance and viability.

(vi) Added to this, the National Small Industries Corporation gives preferential treatment to the units in the industrial estates in supplying machinery and equipment both domestic and foreign. They are supplied on hire-purchase terms⁵¹. This encouraged the industrial enterprises to possess as many machines as possible, particularly when they were starved of them. This increased their manufacturing capacity. As there was no proportionate increase in the demand for output the gulf between potential capacity and actual level of production increased. It shifted the unit to a point farther away from the optimum. Idle capacity had developed as machines were purchased merely because loan finance was easily available. Incidentally, it led to more mechanised technique of production which rendered the units more capital intensive in output and factor combination. An important point should be mentioned here. The basic economic philosophy behind the small enterprise is that it is less capital intensive in output and factor combination. This is the economic justification for their development. The industrial estate is a means for fostering the development of small enterprises. If it makes them more capital intensive in the process, the industrial estate is a paradoxical technique.

(vii) The institutional finance—the financial assistance rendered by the State Bank of India, the State Financial Corporation under the State Aid to Industries Act and by the Commercial Banks—was considerable and more for the estate units. This helped them more to add to their working capital by which they procured more raw materials increasing their inventory and fixed investment rendering them less viable financially.

51. The value is reimbursed in twenty equal annual instalments. The rate of interest works at about 4.5% and is included in the cost of the machines. The purchaser makes an initial deposit of 5-10% of the value of the machines as earnest money. The first instalment is paid 60 days after the delivery of the machines.

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(viii) There is no need to mention about the lack of coordination between the various institutional agencies purporting to assist the development of small enterprises and the consequent administrative delays. The Directorate of Industries and Commerce (State Government), the Small Industries Service Institute (Government of India), the State Small Industries Corporation, the National Small Industries Corporation, the Controller of Imports, the Controller of Steel, the Directorate of Supplies and Disposals, the State Bank of India and its subsidiaries, the nationalised fourteen public sector banks and many others have a say in the functioning and development of the small enterprises. Often they pull in different directions.

(ix) The causes for the failure of the Kamnagar Rural Industrial Estate appear to be more basic. The concept of the rural industrial estate is very nebulous. The problems of the content and organisation of the rural industrial estate have received very little attention, particularly from those who make policy and even from those who implement it. The nature of enterprises that will operate in a rural industrial estate is not defined. Neither are they specified. There are only vague indications. A rural industrial estate is taken to be an industrial estate located in a rural area having a small population. It is identified with a miniature urban industrial estate. It is recognized as a small industrial estate, on a small area, having a small number of sheds of small size. But mere location in a rural area or its physical dimensions does not make an industrial estate any more rural. To be a good rural industrial estate the effects of the industrial estate should percolate into the rural economy and they should assimilate each other.

(x) The character of official thinking regarding the rural industrial estate can be understood by a close examination of some of the official statements⁵². The Working Group on the Programme of Work for the Third Plan postulated that considerations like proximity to markets, particularly, in regard to consumer industries, nearness to equipment and machinery for repairing

52. L. N. Dhar and H. F. Vedall, op. cit.

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critical about the enthusiasm with which the Government is planning the expansion of industrial estates and the dispersal of industries in rural areas. Industrial estates alone cannot overcome locational disadvantages. This observation of the Team and the experience so far should be taken into account in locating new estates. On the dispersal of industries, the Team had suggested a careful economic analysis before making location decisions. It asserted that any policy of trying to locate a large number of industries in the most backward areas or directly in villages will be doomed to failure. The strategy should be consolidation of the existing position and it warrants that the Government policy be more sharply focussed.

A World Bank mission, headed by Mr Peter Wright, visited the country in 1965 and criticised the economic and industrial policies of the Government of India. It singled out for particular castigation the Government's prejudice against the big units. This places, the mission felt, a premium on small and medium units denying industry the advantages of economies of scale. The mission proceeded to say that the misplaced emphasis on cottage and village industries was another manifestation of the same prejudice. It may be added that restricting the industrial estate to only small industries and prohibiting the large and the medium is carrying the prejudice to the extreme. Some of these problems cannot be solved without a radical change in official thinking.

7.3. How to make them succeed?

The logical question is how to make the industrial estates efficient? The methods of making them more viable economically and financially are partly based on the results of the field investigation in question in Mysore, partly on observations of the pattern of the emerging industrial estates in India and their performance and partly on the experiences of other countries. In other words, it takes into account the experience of the programme in Mysore, the Indian experience and the international experience. Suggestions to gear up the programme on the basis of the Indian experience are traceable to the study of 100 industrial estates in

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and service workshops, availability of technical know-how and skilled workers, essential facilities like transport, water, power, etc., influenced location of small scale units in cities and towns. Such of the small scale units as have to be developed as ancillary to large scale factories had necessarily to be located near the parent units which were invariably in towns. Without any argument they declared: ".....these considerations will obviously have to be given less importance if the objective of taking industries to rural areas is to be fulfilled more effectively". What will be the consequence if those considerations are given less importance? There is no explanation. They assert that the industrial estate is ".....one of the effective instruments for dispersal of industry....." and ".....should be more actively fostered during the Third Plan period". But how? They sound a counsel of caution by saying that ".....due consideration will have to be paid to various factors like entrepreneurial talent in rural areas". Is there any entrepreneurial talent in rural areas in general? It is also remarkable that ".....the location of estates in make-backward areas is done with proper planning and care many of the disadvantages of location can be overcome". Is this not empty self-justification? These statements hardly help conceptualisation of the rural industrial estate.

The approach to the problems of small enterprises in general and the industrial estates in particular, in India has been quantitative and not qualitative. The International Perspective Planning Team urged the Government of India to assist the existing units to develop efficiency and productivity rather than encourage new units to come up. The study made by Professors Dhar and Lydall points to the same. Although the role of small enterprises in Indian economic development is important, weakness or inefficiency should not be perpetuated. There should be no premium on them. Encouragement should be given to only the most efficient and promising small firms and they should learn to stand on their own feet. As regards the role of the Government, the Team was very

53. Dr. P. C. Alexander, *Industrial Estates in India*, Asia Publishing House, 1966, pp. v, 105.

India, a summary of which is given in appendix 1. International comparisons, undertaken in the context of theoretical studies of industrial estates indicate that all is not well with the Indian policy regarding industrial estates. Some suggestions mentioned in the following may appear to be foreign to the Indian context but they can be adapted. The idea of the industrial estates in India is itself an adaptation. While making suggestions based on the experiences of foreign countries, care is taken to make sure that the adaptations are possible and that they do not run counter to the declared objectives of the industrial estates programme in India. While making the suggestions, a sort of a system's approach is made so that all the suggestions put together make an integrated whole. Some suggestions may appear to be trivial or naive but they have an important place from a system's point of view of the programme and its handling thereof. Some suggestions may appear to be not directly traceable to the field investigation. This is only apparent but not real. While making the suggestions, an attempt is made to draw all the threads together and weave them to a system whether they originated from the results of the field work or observations of the programme over the period of a decade or theoretical studies about their peers abroad. Now an attempt is made to list the suggestions to gear up the whole programme.

(i) At the outset, it may be pointed out that defining the targets of industrial estates in terms of "two industrial estates in a district—one urban and one rural" is not very meaningful. This mechanical rule must be abandoned forthwith. Some districts may deserve more industrial estates and some may deserve none, considering their economies. Industrial estates are not something which can be sprinkled generously all over the geographical area, uniformly. Their location should be carefully determined. More so with respect to the backward regions and rural areas.

54. Government of Mysore, Department of Industries and Commerce, *District Hand Book of Industries*. Such a definition is implicit in many policy documents of the Government of India.

(ii) Another variation of defining the targets in a superficial way is to postulate that it is better to have a bigger number of smaller industrial estates, so that they can be dispersed more widely. On the contrary bigger industrial estates are needed in India and they must be experimented with. It can be seen from the British experience that they set up mammoth and gigantic industrial estates to solve the problems of special areas, later called 'Development Areas'. As the problem in India today is more serious than what it was in Britain a couple of decades ago, India should have bigger industrial estates. Only then will their effect be felt and percolate into the economic system. By international standards the average Indian industrial estate is dilapidated.

(iii) The location of the industrial estates should be carefully determined with the help of purely economic criteria. The prerequisite is, perhaps, a comprehensive economic study of alternative locations, covering geological base, raw material base and the availability of enterprise, locally as was done in Ceylon⁵⁵. The possibility of a sound complex of industries, medium and small, should be investigated. The preexistence of a minimum of economic and social overheads is also very important. The 'Economics cell' in the Ministry of Industry, should be responsible for dispassionately scrutinizing all the proposals put by the state governments on strictly economic grounds before approving them.

(iv) For purpose of ensuring a good location the whole state should be taken as a unit of planning for purposes of industrial estates and divided into 'homogeneous economic areas' as was done in Southern Italy⁵⁶, from the standpoint of present and

55. E. G. S. Paul, "The Role of Industrial Estates in the Industrial Development of Ceylon" *Industrial Estates in Asia and the Far East*, United Nations, New York, 1962, pp. 85-149.

56. The region of Southern Italy, the most underdeveloped part of Europe was classified into (i) areas of further development; (ii) areas of integral development and (iii) areas of improvement. For details see United Nations, *Establishment of Industrial Estates in Underdeveloped Countries*, Department of Economics and Social Affairs, New York, 1961, pp. 13-14.

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potential natural resources. The pattern of industrialization, so far as industrial estates are concerned, could vary from area to area, depending upon their resource endowments. The criteria for economic homogeneity could be the mineral wealth, the raw materials of industrial importance and the nature of industrial complex itself. If an economic area could be demarcated which has some mineral wealth throughout or some raw materials of industrial importance or a particular type of skill, that area could be taken as a unit of planning for purposes of industrial estates instead of the district. Such a homogeneous economic area may cover more than a district or may constitute a part of it or may even contain parts of many of them. The temptation of administrative convenience should be surmounted. The data required for such a demarcation already exist with the Government and they need only to be harnessed, arranged and looked at in a proper perspective. The location of an industrial estate should be viewed along with the resource endowment of the homogeneous economic area in question.

(v) Having determined the location, the siting of the estate is an equally important task. Before finalizing the siting of an industrial estate, studies of benefits and costs of alternative sites should be completed. They should take into account the distance to be commuted by the workers, transport costs of raw materials and finished goods, easy access of the estate to the customers and others. There is ample testimony that "....some of the state governments decide that an estate should be put up as far removed from the town as possible, without considering the difficulties of providing the necessary facilities such as transport, housing of workers, availability of power, drainage, water, roads, etc."⁵⁷ It should be borne in mind that the problem of decentralization is a problem of location and not a problem of siting. It is odd to put estates as far as possible from their associated towns and more so to call it decentralization⁵⁸.

57. Government of India, Small Scale Industries Board, *Report of the Subcommittee on Industrial Estates*, 1959, p. 15.

58. See P. N. Dhar and H. F. Lydall, *op. cit.*, p. 45.

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(vi) It may be mentioned, if considerations other than strictly economic, for example the need to industrialize an area out of scratch, warrant the setting up of an industrial estate in an area which does not fulfil any of the economic criteria, all efforts should be made to provide infrastructure, along with the industrial estates. It should be "operations bootstrap"—the Puerto Rican strategy.

(vii) The preexistence of a complex of industries, within the homogeneous economic area, is perhaps, more important than nearness to the big city or even the presence of economic and social overheads. It appears that if industrial estates are to succeed in India, they should be located near large industries, not necessarily large cities. As mentioned by Prof. Dhar and Lydall "....industrial estates are to be located where industrialization has already made some headway and where the supply of entrepreneurial skill already exists"⁵⁹. It follows that if there is an attempt to decentralize industries to backward regions or industrialize a rural area, the best thing to do would be to persuade a couple of large industries to go there first. This is a lesson from Great Britain⁶⁰. The large industries are capable of creating the economic and social overheads and the infrastructure. The experience of India with regard to the industrial estates has shown that the small industry ".... is a follower and not a pioneer and it is the large industry that creates external economies and economies of agglomeration and also provides potential entrepreneurs from among the rank of its skilled workers"⁶¹. Technical and economic considerations should come first and then considerations of dispersal of industry. The prerequisite to develop an industrial estate in any area would be first to persuade a couple of large industries to settle there.

(viii) After deciding about the location and siting of the industrial estate, attention should be concentrated on the physical

59. *Ibid.*, Chap. III.

60. *Establishment of Industrial Estates in underdeveloped Countries, op. cit.*, pp. 7-8.

61. P. N. Dhar and H. F. Lydall, *op. cit.*, p. ix.

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planning of the estate, the lay out. Enough of land should be acquired initially to provide for future expansion and to safeguard against undue land price increases. However, only that portion which will be needed in the short run should be developed in order to have a rational basis for economic rent. The land utilisation should be as far as possible prudent and economical. Industrial land is very precious and should not be wasted in open space. It appears that a very high percentage of the total area is open space in a representative industrial estate in this country, and the sheds seem to occupy a small percentage of the total space. Roads also seem to occupy a disproportionately high percentage of space compared to the traffic flow. As much of the area as possible should be covered and should be used as manufacturing space. Sheds need not display architectural feats and they should be strictly functional.

(ix) Strict economy should be observed in construction. Then only rent can be reduced and the programme popularized. As pointed out by the Selected Building Projects Team "....the answer to low rent is lower cost of construction and not higher subsidy". Construction practices should be standardized. There was observed a very wide variation in the cost of construction between the estates, and even within an estate. Construction period also fluctuated widely. The construction time of the industrial estate should be as low as possible. Once the construction practices are standardized, it will be easier to build the sheds according to individual industrial requirements of the tenants rather than to build in advance of demand, as is done at present. Such a practice not only avoids the loss of rent caused due to the vacancy of sheds for a substantial period but also prevents the sinking of limited capital on sheds indefinitely, which, could otherwise be turned over and utilized more usefully. Prompt and regular payment of rent should be made compulsorily and a progressive rate of penalty imposed on arrears of rent. In the long run, it may be worthwhile to consider compulsory hire purchase of sheds and later outright sale from the point of view of better turnover of

62. Report of the Selected Building Projects Team on Industrial Estates, op. cit., para 9.1.

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limited funds. Ultimately, a system of providing developed industrial land with utilities and facilities as in industrial areas may be more viable. These are coming into vogue in India and a note on the industrial areas is presented in Appendix 2.

(x) It is very important to pay attention to the utilities, facilities and services within the industrial estate. This is one of the objectives of the Indian industrial estate programme. The general pattern seems to be to provide as many utilities, facilities and services as possible in the industrial estates which are big and comparatively developed, to provide as little as possible in the medium and partly developed industrial estates and to neglect them altogether in small and undeveloped estates situated near small towns and villages. There is an apprehension that it would be uneconomical to organise common facilities and services for a small number of industrial enterprises. The utilities, facilities and services should come first. Not that, they should come in full swing. Otherwise the growth of small enterprises will be stunted. To withhold such an expenditure on such a flimsy ground is pseudo-economy. The provisions of utilities, facilities and services is a part of the Indian industrial estate programme and the industrial estate is incomplete without them. These facilities should be organised on full scale irrespective of the size of the industrial estate, the number of sheds, the number of functioning units and the place of location. It may be worthwhile to emulate the example of Puerto Rico, in this regard.

(xi) The industries to be housed in the industrial estate should be selected carefully. The criteria should be again economic, namely, (a) the necessity of having the particular industry in the context of the overall development of the homogeneous economic area; (b) whether the area can supply some of the raw materials needed by the industry in question; and (c) whether the area can absorb the products manufactured by the unit. The requirements

63. It is the most well balanced programme in offering inducements with assistance at various stages of planning, construction and publicising industry. For details see *Industrial Estate in Underdeveloped Countries*, op. cit., para 10.1.

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industrial estates for selected industries and then consider their location. That is, one can think in terms of a 'Machine Tools Industrial Estate', a 'Textile Machinery Industrial Estate', etc., instead of the industrial estates attached to administrative divisions and places. Besides the ease with which common facilities can be organised, such industrial estates can be located easily near their raw material sources or near the industries for which their products are inputs or even in the places where the related manual skill is concentrated. This should make the industrial estates very viable.

(xv) As far as possible, industrial estates should be organised on the functional pattern where the products can be sold more profitably. Alternatively, they should be linked to some large scale industry or then industrial associations as ancillaries, in which case the products can be sold more easily.

(xvi) Care should be taken to see that the enterprises in the industrial estates do not become unduly capital intensive in output and factor combination. Because, the fundamental justification for the development of small enterprises, for which the industrial estate is an instrument, is that they require relatively less capital per unit of output and per person employed. The industrial estate should not transform the situation unfavourably. This can be done by revising the policy of giving preferential treatment for the enterprises in the industrial estates with regard to the supply of machines on hire purchase. Unless and until the capacity of the existing machines are completely utilized and exhausted, no more supplies should be made. It should be made obligatory on the part of financial agencies to make sure before they extend credit that additional financial accommodation to the units will not have any adverse effect on their turnover rate, liquidity and profitability.

(xvii) Regarding the technical service that is rendered at present to the enterprises in the industrial estates, there is need for some rethinking, necessity for a reorientation of policy and preparedness for even radical changes. The agency in question is

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of manual skill should also be taken into account. Only then will there be mutual assimilation of the industrial estate and the region. The bare of the Indian industrial estate programme is the artificial dichotomy of the problem of the industrial estate and the development of the area concerned. The development of the small enterprise is looked into independently with the development of the area in question. Problems of the industries must be considered along with the problems of the areas. The industrial estates in India is a major economic lesson drawn from Britain. But the basic lesson of the British experience is that the problem of the industry cannot be isolated from the problem of the area⁶⁴. Have we not missed this important lesson?

(xii) Having determined the type of industries, if confronted with a choice between various enterprises in an industry for purposes of accommodation in the industrial estates, the criterion of selection should be the historical economic performance of the enterprises and their equipment of technical know-how in the line of activity.

(xiii) Attempt should be made to select a homogeneous group of industries, as far as possible. They should be homogeneous in type as well as in size. This renders the organization of utilities, common facilities and services easy. It is only in such a situation that one can expect complementarity in production, inter-servicing and inter-trading.

(xiv) Instead of thinking in terms of one industrial estate in each district, it is better to think in terms of an industrial estate for each industry, depending upon the mineral wealth, raw materials, industrial base, availability of the skill, the possibility of the products being absorbed in the area and the place the industry in question enjoys in the scale of priority for the development of the area in question. One should think in terms of

64. Dr. P. C. Alexander, *Government Assistance to Small Industries in the United Kingdom*, Central Small Industries Organization, Government of India, 1962, p. 2.

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the Small Industries Service Institutes. There has been a feeling among a majority of the enterprises investigated both within and without the industrial estates, that the equipment of the Institute is poor and the advice rendered superficial. Such a popular feeling is not far from reality as the Institute has got to be a 'jack of all trades' and as a result 'master of none'. It is not the fault of the Institute. The fault lies in its organisation. It is practically impossible for one agency to give 'expert advice' for all types of industries. Where is the specialisation? To overcome this difficulty Induks can be organised in our country as in Indonesia⁶⁵. The Induk is an agency which renders technical and commercial services to a particular homogeneous group of small enterprises. For example, a 'Machine Tools Induk' will help small enterprises making machine tool components, in organising their production system, improving the quality of their products, introducing standardization, new techniques and modern equipment, providing better designs of manufactured products, improving the management organization, training managers and organizing the sale of their products. Similarly, one can conceive a 'Textile Machinery Induk', an 'Agricultural Implements Induk', etc. In contrast to the Small Industries Service Institute or the Industrial Extension Service Centre which is a collection of average skills of all trades, arts and crafts, the Induk will be an expert agency on all aspects of one single industry.

(xviii) The Induk for a particular industry can be integrated with the industrial estate for a particular industry. For example, the 'Machine Tools Induk' can be attached to the 'Machine Tools Industrial Estate'. Similarly, the 'Textile Machinery Induk' can be attached to the 'Textile Machinery Industrial Estate'. So with the Agricultural Implements Induk and the Agricultural Implements Industrial Estate. Actually, the Induks

65. The Institute is viewed as a fifth wheel in the development of small enterprises. It appears to be more concerned with the bringing up of as many new small enterprises as possible irrespective of the availability of raw materials or market for them.

66. *Industrial Estates in Asia and the Far East, op. cit.*, p. 272.

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can be put in charge of the utilities, facilities and services in the industrial estates.

(xix) The bane of all the promotional schemes for small enterprises in India has been the multiplicity of agencies. They have grown like thick grass. To list a few they are (a) The Small Industries Service Institutes and the Industries Extension Service Centres (technical advice); (b) the National Small Industries Corporation and the State Small Industries Corporations (hire purchase of machines); (c) the Industries and Commerce Departments of the States (raw materials); (d) the Controller of Imports and Exports (imports of raw materials); (e) Controller of Iron and Steel (the quota of iron and steel); (f) Directorate of Supplies and Disposals (marketing); (g) State Bank of India, State Financial Corporations and the Nationalised Banks (finance) and many others. All these claim to have a say in the development of small enterprises and most of the time they pull in different directions. It may be better to consolidate all the services rendered by the institutions mentioned in the foregoing and amalgamate them into one institution as in Burma⁶⁷.

(xx) The Induk would be the appropriate field agency of such a single institution. It would be in the right position to recommend for licence for imports of scarce raw materials, allotment of indigenous materials, supply of machines on hire purchase, grants and financial assistance and participation in Government's stores purchase scheme. It would be able to discharge its functions effectively as it is both the technical and commercial agency in one. In view of its wide powers it can enforce quality control and help achieve uniform standards in production, the absence of which is a major drawback of the Indian Small Industry. If properly planned, the Induk can start its functions from the pre-location studies for the industrial estates, siting and construction. Ultimately, it might help reduce political elements in economic decisions.

67. *Ibid.*, pp. 230-232.

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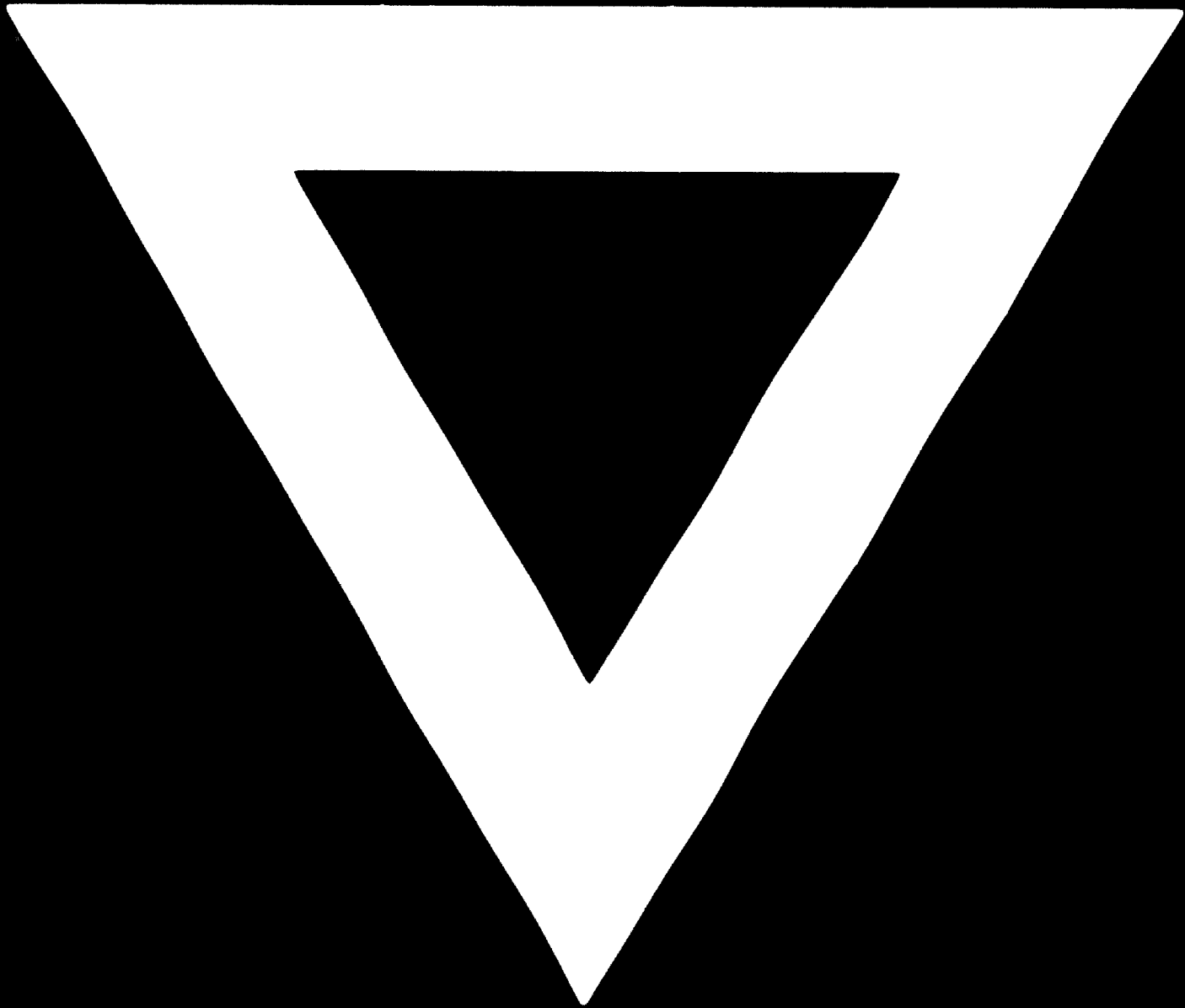
(xvi) More attention than is evidenced upto now should be given to the rural industrial estate. While establishing a rural industrial estate care should be taken to see that the industries that would be located are such that (a) the entrepreneurship for them could be found in the rural area; (b) the labour, skilled and unskilled, required for the industries is available locally; (c) the industrial raw materials available in the rural area are exploitable and could be utilized as far as possible as inputs by the industries in the industrial estate question; (d) the products manufactured in the industrial estate could be sold in the rural area; (e) the manufacturing activities contemplated in the estate do not require heavy capital and superior technical knowhow; and (f) that they are not capital intensive in output and factor combination. The products manufactured in the rural industrial estate should be such that they help mechanization of agriculture, improve the yield of agricultural output, make irrigation equipment cheaper, assist rural electrification and increase the productivity of the already existing traditional and cottage industries. These may include simple agricultural implements, spare parts for heavy agricultural machinery like tractors, harvesters, etc., irrigation pump sets, light fertilizers, simple electrical equipment, transport equipment, wooden furniture and other simple tools. Only then the industrial estate would touch the rural economic system at every point. The income generated by the estate would percolate into the rural economic system and the employment generated would belong to that place. There would be a feed back process (production-consumption-production) and cumulative growth. The industrial estate assimilates the rural economic system and the rural economic system in turn assimilates the industrial estate.

These appear to be some of the ways and means of making the industrial estates succeed in this country. The miserable existence of hundred and odd tiny industrial estates uniformly distributed over the whole geographical area in all the nooks and corners of the country which go unnoticed and whose impact on the economy will be unfeared achieves little. It may be better to have a series of giant industrial estates in each homogeneous economic area, whose impact would be strong enough to be

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influential in the economic system. If such big industrial estates become platforms for foreign collaboration as in Puerto Rico, they would bring in the much-needed resources and technical knowhow whose injection to the economy would accelerate economic development. All these call for a considerable change in governmental policy and a major shift in official thinking.

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