

CHAPTER . III

MAKARPURA INDUSTRIAL ESTATE

A INTRODUCTION

The contents of this chapter are mainly a description of the GIDC Industrial Estate situated at Makarpura, Baroda. In addition, and by way of introduction a word or two is said about the objectives pursued by the Government of India in promoting Small Scale Industries through Industrial Estate programme. Also, the concept of an industrial estate is dealt with briefly.

3.1 Objectives served by an Industrial Estate

To begin with the Government of India is pursuing its policy of promoting Small Scale Industries through a programme of industrial estates since 1955 (i.e. close of the first five year plan).

According to the Development Commissioner ¹, Small Scale Industries, Ministry of Industry, the objectives served by an industrial estate are :

- (i) Industrial estates facilitate the growth of small scale industries by providing all the essential facilities.

- (ii) They shift the small scale industries from congested areas to estate premises with a view of increasing their productivity.
- (iii) It helps to achieve decentralised development in small towns and villages.
- (iv) The industrial estate programme assists the ancillary industries in the townships surrounding major industrial undertakings both in public and private sector.

Objectives one, two and four outlined above, are fulfilled in the setting up of an industrial estate at Makarpura.

The task of promoting small industries through industrial estates programme was vested with the State Governments. The Government of Gujarat set up a public sector undertaking - the Gujarat Industrial Development Corporation (GIDC), under the statute of GID Act 1962, in order to pursue the said programme. So far the GIDC has set up 171 industrial estates in the State of Gujarat, and these estates serve as breeding ground for small industries. But before going any further, in order to find out how a small entrepreneur who sets up his unit in an industrial estate is better off than his counterpart outside, it is necessary to understand

the term industrial estate, and also state the infrastructure facilities that go along with it.

3.2 Definition of an Industrial Estate

The United Nations department of Economic and Social Affairs has defined an industrial estate as "a planned clustering of industrial enterprises offering developed sites, pre-built factory accommodation and provision of services and facilities to the occupants." ²

The infrastructure that is required for the development of the small industry may be considered under three heads namely, Physical, Industrial and Social facilities.

Physical infrastructure is meant to include :

- Roads,
- Railways,
- Electrical network,
- Water, and
- Communication.

Industrial infrastructure facilities may be said to include the package of services such as :

- Warehousing,
- Centralised tool room and service centres,
- Testing and Quality marking centres,
- Raw material stocking centres,

- Development of technical skills through specialised institutions,
- Banking,
- Transport services, and
- Workers rest places.

Social infrastructure would include :

- Housing for workers,
- Educational facilities,
- Welfare measures for workers and their families, such as -
 - Social security,
 - employees' state insurance,
 - minimum wages,
 - balwadis,
 - shopping complexes of generalised, and specialised type,
 - health and medical facilities,
 - community organisation,
 - recreational facilities including theatres, and
 - restaurants of different types to cater to the variety of clientele etc.

The extent to which these infrastructure facilities are provided by GIDC in the Makarpura industrial estate will be discussed in the subsequent paragraphs.

B ABOUT MAKARPURA INDUSTRIAL ESTATE

The first of the aspects to be discussed regarding the Makarpura Industrial Estate is to narrate the advent of the estate.

3.3 Genesis of Makarpura Industrial Estate

With the setting up of the IPCL, Refinery, giant fertilizers and chemical complexes around Baroda, the need to set up an estate to promote ancillary units was imperative.

The GIDC was promoting a petro-chemical complex at a distance of 10 KM from Baroda city for petro-chemical industries and therefore the need to develop an industrial area for accommodating industries of non-petro-chemical nature was felt. At that time there was already a demand for nearly 117 acres of land from enterprising entrepreneurs, i.e., industrialists/prospective industrialists had applied for nearly 117 acres of land in the Chhani-Gorwa area for the purpose of putting up industrial units. But for different reasons the said land could not be allotted. These industrialists were then willing to accept allotment of land in the Makarpura area. ³ Therefore, GIDC had decided to develop an industrial area in Makarpura. Thus, the industrial estate at Makarpura came into existence

vide resolution number 408, at the 55th meeting of the GIDC held on 2nd March, 1968. The resolution was passed that 800 acres of land would be acquired and the land development done in phases. It was also decided that 30% of the land was to be set apart for public purposes.

3.4 Location

The industrial estate at Makarpura lies between the main broad-gauge railway line and the Ahmedabad-Bombay National Highway No.8. It is eleven kilometres from the Baroda city railway station.

The Makarpura estate is within the municipal corporation limits of Baroda city which adds to the advantage of the small entrepreneurs in the industrial estate.

3.5 Baroda

The Makarpura industrial estate is situated in the erstwhile princely city of Baroda. It is a highly cosmopolitan city and encloses the prestigious residential Maharaja Sayajirao University. In fact, it is around this seat of learning that the city has developed.

Baroda, as one of the leading centres of industrial activity in the State of Gujarat, has a lot to offer to its industrialists. It provides the necessary

industrial climate, as, many industrial giants such as the IPCL, Gujarat Refinery, Gujarat State Fertilizers Corporation and large industrial units like Alembic Chemicals, Hindustan Brown Boveri, Precision Bearing India Ltd, are located there. Also, it encompasses 9 industrial estates of which the largest is the Makarpura industrial estate.

Baroda is one of the largest centres for packing materials in the State of Gujarat and Rajasthan.⁴

Computer technology has advanced by leaps and bounds and many manufacturers in the city are involved in the manufacture of computers. The Gujarat Communication and Electronics Ltd., situated at Baroda has its electronic test and development centre at Makarpura industrial estate.

Industrial associations cater to the development of industry and the following associations have their offices in Baroda :

- : Vadodara Chamber of Commerce,
- : Federation of Gujarat Mills & Industries,
- : Federation of small scale industries,
- : Gujarat Chamber of Commerce,
- : Baroda Productivity Council,
- : Baroda Management Association, etc.

Besides these, several state level organisations which exist to help and serve industry have their branch offices at Baroda.

The Gujarat Industrial and Technical Consultancy Organisation Ltd, provides consultancy to entrepreneurs, industrialists and financial institutions.

The 'Centre for Entrepreneurship Development' is vested with the task of identifying entrepreneurial Qualities in youth and give them the required training, besides conducting programmes for those already in industry.

The Gujarat State Financial Corporation extends financial facilities (term loan etc.) to the entrepreneurs.

Thus, it is found that, the city of Baroda embraces a congenial atmosphere for the development and growth of industry. It is in this city that Makarpura Industrial Estate is located and the entrepreneurs of this estate are privileged to have their factories in this estate.

3.6 Classification of the Makarpura Industrial Estate

Industrial Estate may be classified on the basis of industrial activity, sponsorship, size, location, etc.

If the classification is to be considered on the lines of industrial activity, then the Makarpura industrial Estate falls under the category 'general purpose estates.' This is so because of the heterogeneity of the products manufactured within the estate.

If the classification is to be based on sponsorship, then the Makarpura estate would be 'government sponsored estate.'

Estates may be classified on the basis of location, in which case, Makarpura Industrial Estate would be deemed as an 'industrial estate in or around a big city or metropolitan area.'

GIDC itself has classified its estates according to their sizes. Any estate covering above 100 hectares of land is considered a large estate. Makarpura industrial Estate is a large estate as :

- it comprises 395 hectares of land,
- of which 335 hectares are under control, and
- land developed so far is 18, 02,271 sq metres.

3.7 Investment

The funds invested by GIDC in the development of

Makarpura Industrial Estate is Rs.648 lacs, while funds raised, is to extent of Rs.2,655 lacs.

3.8 Composition of the industrial units in Makarpura Estate :

The Makarpura industrialists boast that the estate accounts for a rich variety of products ranging from pins to parts for aircraft. Many of the entrepreneurs in the estate are technocrats who have had exposure to high precision technology and have been manufacturing products of good quality.⁵

The Makarpura estate comprises primarily of small scale industrial units only six units come under 'large/medium scale' category.

At the time of the survey of the present study, the unit list published by the Vadodara Chamber of Commerce and Industries was utilized for drawing up the study population.

The industrial estate has a provision for 1200 units but the Directory of Makarpura recorded 770 units only, of which units engaged in manufacturing activity were 522. Of the remaining 248 units,

- 118 units were indicated as 'open plots',
- 19 units as 'under construction',

- 35 units as 'closed',
- 22 units as undertaking 'job work' of a non-manufacturing nature,
- 24 units that render service but are not included in the definition of small industry, e.g. post-office, banks, weighing centres, etc.
- 30 others, such as canteens, shops, godowns, trading firms etc.

These details are discussed under the head 'Population of Makarpura industrial estate,' in the chapter on Methodology.

Table III.1

Classification of Units in Makarpura Industrial Estate
as per National Industrial Classification (1970).

Serial Number	Major group code	Industry Manufacturing	Units	
			No.	%age
1	20-21	Food Products	11	2.11
2	22	Beverages, Tobacco & Tobacco Products	2	0.38
3	23	Cotton Textiles	2	0.38
4	24	Wool, Silk & Synthetic fibre textiles	1	0.19
5	25	Jute, Hemp & Mesta textiles	3	0.57
6	26	Textile Products (including wearing apparel other than foot-wear	3	0.57
7	27	Wood, wood products, Furniture and Fixtures	18	3.45
8	28	Paper and paper products, Printing, Publishing and allied industries	16	3.07
9	30	Rubber, Plastic, Petroleum and Coal products	60	11.49
10	31	Chemicals and chemical products (except products of Petroleum and coal)	67	12.84
11	32	Non-metallic Mineral products	15	2.87
12	33	Base Metal and Alloy industries	51	9.77
13.	34	Metal Products and parts except machinery and transport equipment	45	8.62
14	35	Machinery, Machine Tools and parts except electrical machinery	134	25.67
15	36	Electrical Machinery, Apparatus,	68	13.03
16	37	Transport Equipment and parts	11	2.11
17	38	Other Manufacturing industries	15	2.83
			522	100.00

Source : Compiled from 'Unitwise List' of Makarpura Industrial Area Association.

The manufacturing activity of these 522 industrial units are described in Table III.1 (the classification is based on the National Industrial Classification of 1970).

From table III.1, it is found that diversified products are turned out at Makarpura. The manufactured products can be classed under seventten 'industry code' groups. A maximum of 134 units (26%) come under category 'industry code 35' which stands for manufacture of machinery, machine tools and parts except eledtrical machinery. Other major groups are industry code groups 36, 31 and 30. In fact, these 4 groups enclose 63% of the products manufactured in the estate.

3.9 Infrastructure facilities

(a) Physical

The physical infrastructure facilities that benefit the industríalists at Makarpura industrial estate are as follows :

(i) Roads

Good tarmac roads have been laid to the length of 19.27 kms and there are kuccha roads for 4 kms.

(ii) Power

Total power supply capacity created in the estate is 17.70 Mega Volt Amperes (MVA).

(iii) Water

Water is supplied to the estate by Baroda Municipal Corporation and the supply capacity is one lakh gallons.

(iv) Communication

The following are the facilities available in the sphere of communications.

There are 1490 working phone connections⁶ and a wait-list of 1,141 applications. A case for constructing a new exchange of 6000 lines at Makarpura has been submitted to the Directorate of the Telephone department and GIDC has allotted land for the same.

There is a post office and telegraph office situated in the estate premises.

(v) Railways

Proximity to railway line is a very basic infrastructure facility that is required for any type of industry. As already stated earlier the

railway line runs just behind the industrial estate and there is a railway station at Makarpura.

The above five aspects are the major infrastructure facilities that are essential for setting up an industry. The industrial estate at Makarpura provides two other facilities to its entrepreneurs in the form of land and sheds.

(vi) Land

Fully developed land is available on lease, hire purchase scheme and down payment, and the going rate is Rs.100/- per square metre (this is subject to change).

The benefit of taking land from the GIDC estate at Makarpura is :

- : taking of non-agricultural permission from the Government is not necessary;
- : the entrepreneur is not required to obtain the title clearance certificate separately while obtaining a loan from term lending institutions;
- : the stamp duty exemption brings in a saving of about 10% in documentation charges in the price of the plot.

A total of 26.73 lac square metres of land is the disposable area in the estate, of which, 25.67 lac square metres is the cumulative area allotted at the end of 1986-87.

The plot sizes vary from 1000 square metres to 50,000 square metres, but in case more land is required, the same is allotted by GIDC.

(vii) Sheds

The difficulty of the 'time required' for construction of a building and the prospect of escalation in project cost is overcome when the entrepreneur is given a ready made shed.

7.65 lac square metres of land had been utilized for construction of sheds, which vary from built up area of 25 square metres to 750 square metres. There are 22 types of sheds provided by GIDC. The annexure on 'Various types of shed designs provided by GIDC' gives information about the plot area, built-up area and provision for additional construction in future, etc.

The number of sheds made available, of which almost all have been allotted, is to the extent of 685 sheds. Table III.2 indicates allotment of sheds over the period 1970 to 1987.

Table III.2 Allotment of Sheds by GIDC for the period 1970 to 1987

Shed Type	'70	'71	'72	'73	'74	'75	'76	'77	'78	'79	'80	'81	'82	'83	'84	'85	'86	'87	Total
A1	7	9	5	6	2	0	2	2	5	1	7	9	2	1	4	0	0	0	62
A2	2	12	2	6	2	4	6	1	8	0	7	12	4	7	0	0	0	0	73
C1	4	11	7	17	10	15	6	8	18	13	24	3	8	3	4	0	3	0	154
C1B	13	8	4	22	7	5	6	3	14	4	18	17	6	4	5	0	2	1	139
E	0	0	0	0	0	0	2	6	2	1	0	0	1	0	0	1	0	0	13
I	1	2	9	2	0	0	0	1	0	0	0	0	0	0	0	0	0	0	15
K1	0	0	3	8	4	6	1	0	8	13	2	6	7	0	0	0	17	0	75
Total	27	42	30	61	25	30	23	21	55	32	58	47	28	15	13	1	22	1	531

Source : Compiled from the official records of GIDC regional office, Baroda
(as on April 1987).

From table III.2 it is found that 531 sheds had been allotted upto April 1987. These figures were compiled from the official records of GIDC regional office at Baroda. The more popular shed designs are :

C 1 (154 sheds),
C1 B (139 sheds),
followed by,
K 1 (75 sheds),
A 2 (73 sheds), and
A 1 (62 sheds).

(b) Industrial infrastructure facilities

Industrial facilities available to the small entrepreneurs within the Makarpura Industrial Estate are given below :

(i) Banking

Leading banks such as the Bank of Baroda, State Bank of India, have their branches within the estate. Besides, there is the Makarpura Industrial Estate Co-operative Bank Ltd, which is of great advantage to many entrepreneurs.

(ii) Warehousing

There are 10 godowns constructed by GIDC itself which is available to the small industrialists.

(iii) Transportation services

There are 28 transport companies that are registered with the Makarpura Industrial Area Association.

(iv) Testing Centres

The 'Baroda Industrial X-ray Service' situated in the estate, provides for radiographic inspection of welds, castings and pipings.

(v) Other facilities

The GIDC Makarpura Public Weigh bridge provides for weighing of all types of material upto 21 tonnes.

The Gujarat Industries and Estate Security Service has its office in the industrial estate itself.

(vi) Research and Development

The Electrical Research and Development Association has its office in the estate premises.

There is an Educational Industrial R & D in the estate which is a centre for research in materials and other industrial fields.

Services such as those described above promote the efficiency of the small entrepreneurs.

(c) Social infrastructure facilities

Social infrastructure facilities are those that promote the welfare of the employers as well as the employees of the estate. The facilities available in the Makarpura Industrial Estate are :

- (i) GIDC itself has constructed 630 housing tenements, which have already been allotted.
- (ii) There is a school which caters for the education of children.
- (iii) GIDC has made provision for 8 shops only.
- (iv) There is an ESI Hospital (Employees State Insurance) in addition to 2 others which caters to the health and medical care of those in the estate.
- (v) The Makarpura Industrial Estate Charitable Trust provides welfare services. There is also a large Community Hall which may be utilized for any functions etc.
- (vi) There are only 2 restaurants in this sprawling estate.
- (vii) The estate has a 'Fire Brigade' which has been provided by the Baroda Municipal Corporation. Housing for fire brigade staff has also been provided adjacent to its office.

(viii) A 'police chowky' is situated in the estate premises.

(ix) The estate houses an institution for the disabled.

The industrialists at Makarpura are fortunate in that, so many facilities are available to them. It is therefore imperative to find out where they stand in production, investment, employment vis-a-vis other GIDC estates. Also, under the same section the favourable and unfavourable aspects of the estate are considered.

3.10 An Appraisal of Makarpura Industrial Estate

(a) Favourable aspects

(i) Economic Survey of GIDC

The Gujarat Industrial Development Corporation conducted an economic survey in 1981-'82 and 1982-'83 with a view to assess the economic indicators pertaining to functional units in 68 GIDC industrial estates. The standing of Makarpura estate is indicated in the following paragraphs and tables.

Table III.3 brings out a comparison between the investment level in the SSI sector of GIDC industrial estates and units in Makarpura estate for the years

1981-'82 and 1982-'83 . The rank indicates the place of Makarpura estate with reference to all other GIDC estates.

Table III.3 'Investment' in Makarpura Industrial Estate

Particulars	Investment 1981 - '82		Investment- 1982 - '83	
	per unit in Rs.lac	Rank	per unit in Rs.lac	Rank
(1) Average of SSI sector in GIDC estates	5.45	-	5.15	-
(2) Average in Makarpura Industrial Estate	4.06	6	4.09	8

Note : Investment is inclusive of land and building, plant and machinery and others.

Source: Compiled from GIDC annual reports for the years 1981-'82 and 1982-'83.

Table III.4 'Output' in Makarpura Industrial Estate

Particulars	Output 1981 - '82		Output 1982 - '83	
	per unit in Rs.lac	Rank	Per unit in Rs.lac	Rank
(1) Average of SSI sector in GIDC estates	13.65	-	12.66	-
(2) Average in Makarpura Industrial Estate	8.69	8	8.77	10

Source : Compiled from GIDC Annual Reports for the Years 1981-'82 and 1982-'83.

Table III.5 'Employment' in Makarpura Industrial Estate

Particulars	Employment 1981-'82		Employment 1982 - '83	
	per unit in numbers	Rank	per unit in numbers	Rank
(1) Average of SSI sector in GIDC estates	14	-	12	-
(2) Average in Makarpura Industrial Estate	17	3	17	3

Source : Compiled from GIDC Annual Reports for the years 1981-'82 and 1982-'83.

From the above tables it is clear that Makarpura is one of the better estates of GIDC. Its 'employment' per unit (table III.5) is fairly high fulfilling the objective of the Government of India in providing more employment.

The 'investment' pattern (table III.3) is also in conformity with the idea of a small scale unit having low investment.

In 'output' (table III.4) Makarpura is maintaining a steady average of nearly Rs.9 lacs, although we find that in 1982-'83 other estates have overtaken Makarpura industrial estate bringing down its rank from 8 to 10.

GIDC has not conducted such surveys after 1982-'83. It is hoped that one such report will be brought out in the current year.

(ii) Makarpura Estate Industries Association

The entrepreneurs of Makarpura Industrial Estate got together to form the 'Makarpura Estate Industries Association'. The objectives⁷ of the association are many, a few are stated below :-

- to promote the cause of all types of industries, particularly SSI, in various industrial fields, e.g., development, improvement, manufacturing, sales, purchase of raw materials, technical assistance etc;
- on the technical side, it will promote the use of quality materials, more efficient tools, better machinery and modern production techniques. It will also aid in experimental work in respect of the problems facing the small industries;
- on the commercial side the association would endeavour to help the industrialist in aspects such as determining marketing potentialities, help in getting credit facilities, exploring the possibilities for expansion of existing industries and setting up new ones etc.

(iii) vacha

Vacha is a quarterly periodical brought out by the Vadodara Chamber of Commerce and Industries, whose office is situated in the Makarpura Industrial Estate itself. This journal publishes all that is 'new' in industry and gives information on 'latest developments' in industry. Moreover, the member units can utilize the facilities of the Library that is attached to the office of the Vadodara Chamber of Commerce.

(iv) Makarpura Industrial Estate Co-operative Bank Ltd

The role of Makarpura Industrial Co-operative Bank located in the estate is commendable. More than 300 small units have taken advantage of this bank in the form of loans⁸.

(b) Unfavourable Aspects

(i) Commutation problems

Many employees serving in the different units of the estate commute by train, but the main railway station is 11 Kms away from the estate and transport facilities from the station to the estate are grossly inadequate.

(ii) Power Supply

Power used to be supplied to the estate by Baroda Municipal Corporation and not by the Gujarat Electricity Board.

This made it 20 to 30% costlier and its distribution quite inefficient⁹. Also, frequent power failures had led to a lot of losses in production. This position has been rectified as the Gujarat Electricity Board has now taken over the distribution and supply of power.

(iii) Numbering of Sheds

The door numbers of the plots and factory sheds in the estate have been given without any sequence and in a haphazard manner. If a visitor has not glanced through the estate map displayed on one of the approach roads, he would find it very difficult to locate a particular factory merely from the plot number or name of the unit. (The annexure on 'Map of the Estate' may be referred).

(iv) Restaurant

There are just 2 restaurants in a sprawling estate of 335 hectares and many units depend on 'informed caterers' for tea.

(v) Shopping Complex

For want of a shopping centre people from the estate have to go elsewhere for requirements such as stationery or petty things such as nuts and bolts¹⁰.

(vi) Professional Services

It has been found during the survey that most small units do not have full time staff for maintaining accounts. In other words, they don't have accounts clerks on their pay rolls as permanent/regular staff. The accounts clerks who are temporarily appointed carry the files home and visit the factories for an hour or so once a week or as per their convenience. Accommodation should be provided for professional services in the estate premises, so that their services are available to the units on a regular basis.

Also, services such as job typing, xeroxing, etc. should be accommodated in the estate.

(vii) Petrol Pump

The estate has a provision for accommodating 1200 units. From this one can gauge the amount of traffic by way of employees, employers, visitors etc. and the absence of a petrol pump within the estate is felt as a great handicap.

(viii) Pollution Control

There are numerous complaints about chemical units which bleach acid and fume periodically to the discomfiture of workers of the adjoining units. It seems the pollution control authorities have not yet taken any action¹¹.

(ix) Disposal of Waste

As one walks or passes through the estate he can see a lot of industrial waste strewn by the road side. GIDC ought to make provision for the same.

(x) ESI Dispensary

Many units work round the clock but the Employees State Insurance Corporation dispensary functions for eight hours only. Also very often workers needing treatment are required to go to Bawanpura (10 Kms) to secure a reference slip and then go to Gotri Hospital (16 Kms) for treatment¹².

(xi) Cinema Hall

The GIDC has provided 630 housing tenements but insufficient recreation facilities. The estate does not have a single Cinema Hall/Theatre.

(xii) Environmental Protection

Baroda city gets very hot during summer months. Tree planting should be undertaken within the estate so that the workers can get respite under their shade.

Having described the various aspects of the Makarpura Industrial Estate, the discussion now moves on to how the sample was selected for the study, and also how the survey was planned and executed. These details are described in the next chapter.

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