

1147

IND - COM. JOURNAL

July (C) 1965

5L
X8m, N45
5165
1147



**DIRECTORATE OF
INDUSTRIES
AND
COMMERCE**

Ind-com Journal

**AMBATTUR
INDUSTRIAL AREA
INAUGURATION
SPECIAL ISSUE
JULY 1965.**

INDUSTRIAL AREA, AMBATTUR

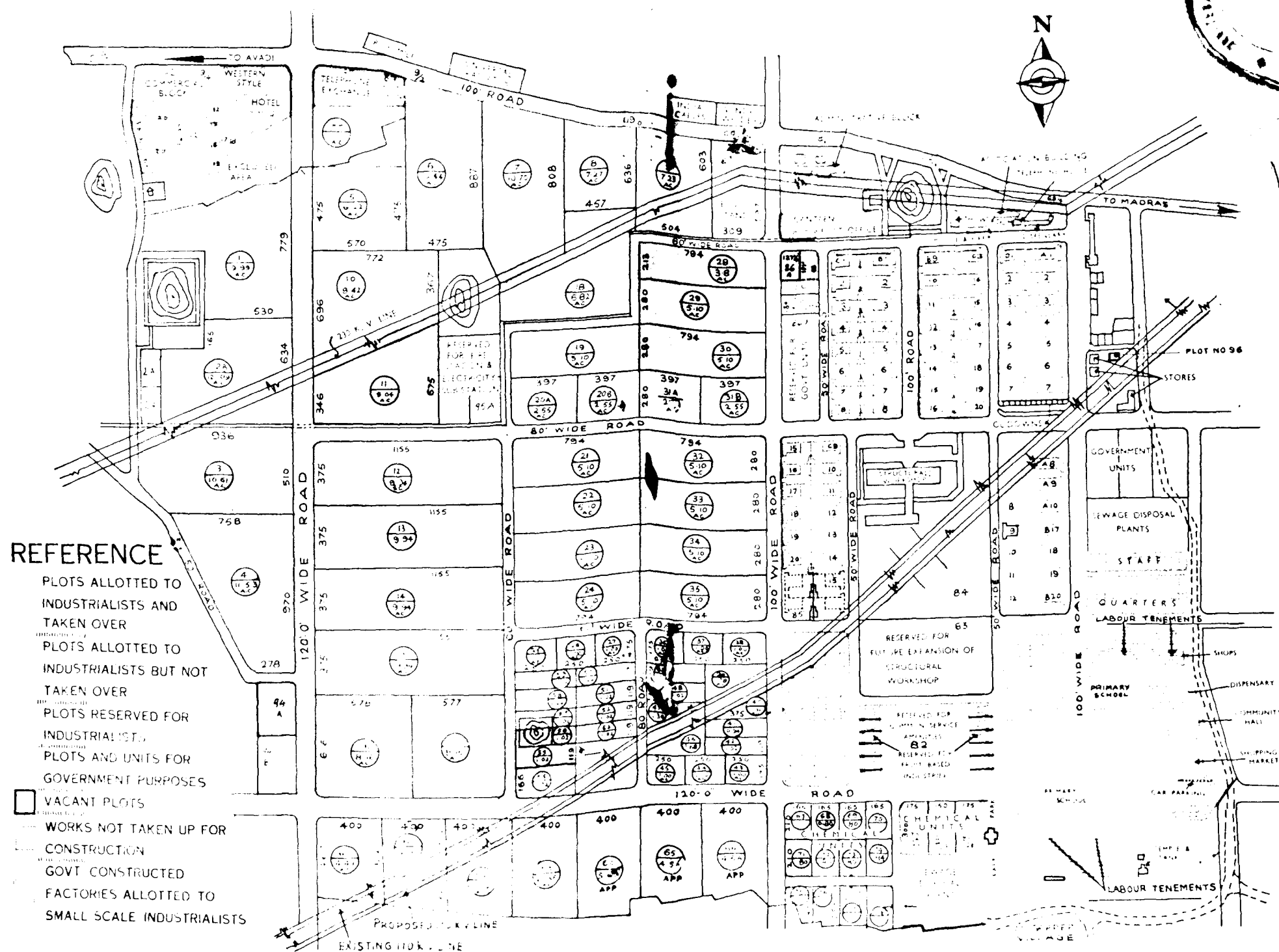
LAY-OUT PLAN — PHASE I

16/10



147

1147



IN THIS ISSUE

	Pages
1. PROGRAMME OF INDUSTRIAL ESTATES IN MADRAS STATE ...	1—6
Sri R. VENKATARAMAN, Minister for Industries.	
2. INDUSTRIAL DEVELOPMENT IN THE MADRAS STATE ...	7—12
Sri T. N. LAKSHMINARAYANAN, I. A. S.	
3. SOME THOUGHTS ON THE PROMOTIONAL ROLE OF THE GOVERNMENT IN INDUSTRIAL LOCATIONS ...	13—17
Sri T. A. S. BALAKRISHNAN, I. A. S.	
4. KNOW THE INDUSTRIAL AREA, AMBATTUR ...	18—19
5. INDUSTRIAL AREAS — A NEW DEVELOPMENT IN OUR INDUSTRIAL STRATEGY ...	21—27
Sri V. KRISHNASWAMY, M. A., M. Sc., I. A. S.	
6. INTRODUCING THE INDUSTRIAL ESTATE ...	29—35
Sri L. M. MENEZES, I. A. S.	
7. LAYOUT OF THE AREA AND DESIGN OF THE BUILDINGS ...	37—40
Sri P. SIVALINGAM, B. E., (Hons.), M. S. (Irrgn.) (Calif).	
8. AMBATTUR INDUSTRIAL AREA (CONTRIBUTED) ...	41—46
9. LIST OF DEVELOPED PLOTS ALLOTTED ...	47—52
10. LIST OF FACTORY UNITS ALLOTTED ...	54—63
11. LARGE INDUSTRIES AROUND THE AMBATTUR INDUSTRIAL AREA	



Sri K. KAMARAJ
President A. I. C. C.



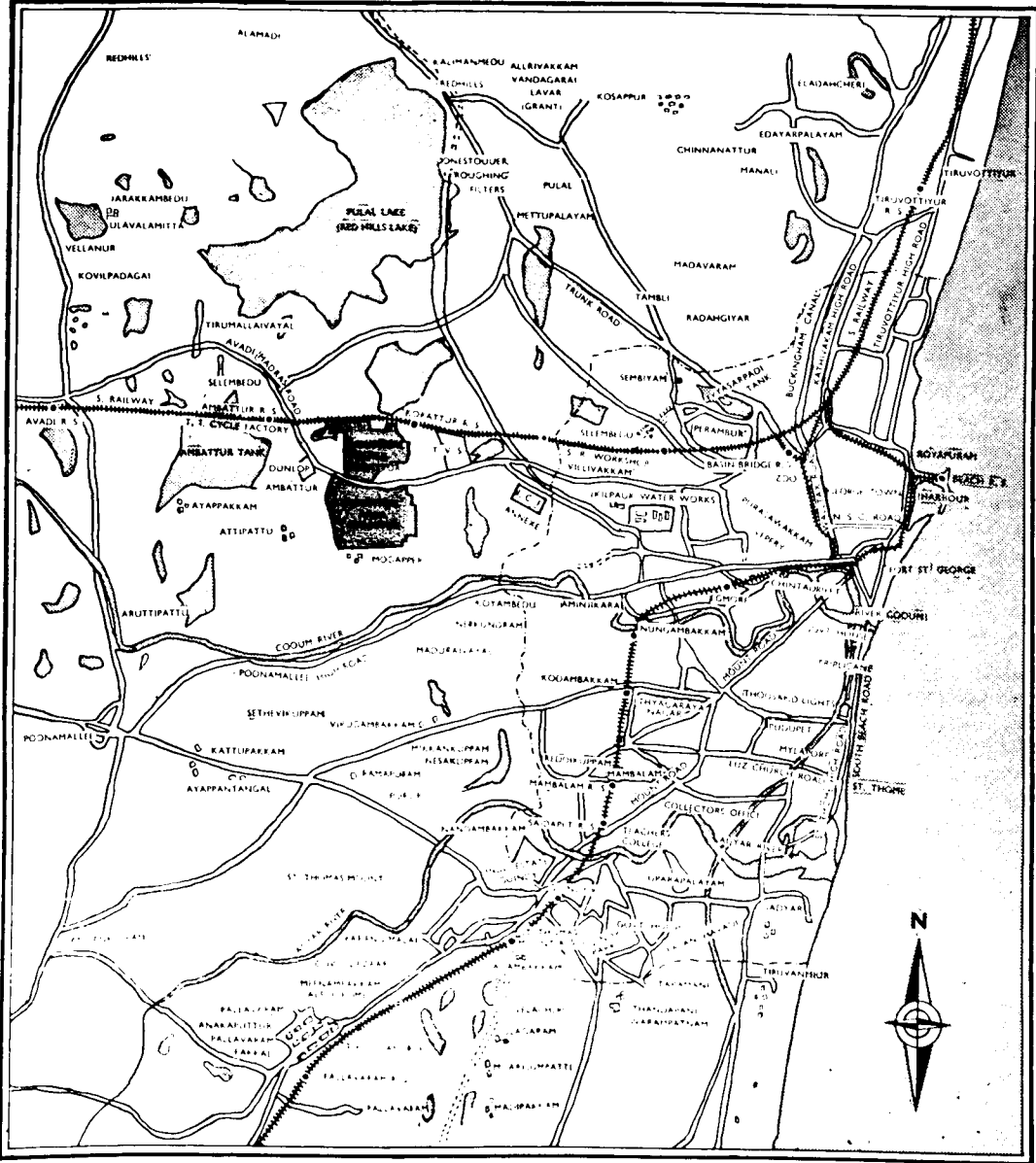
Sri M. BHAKTAVATSALAM
Chief Minister of Madras

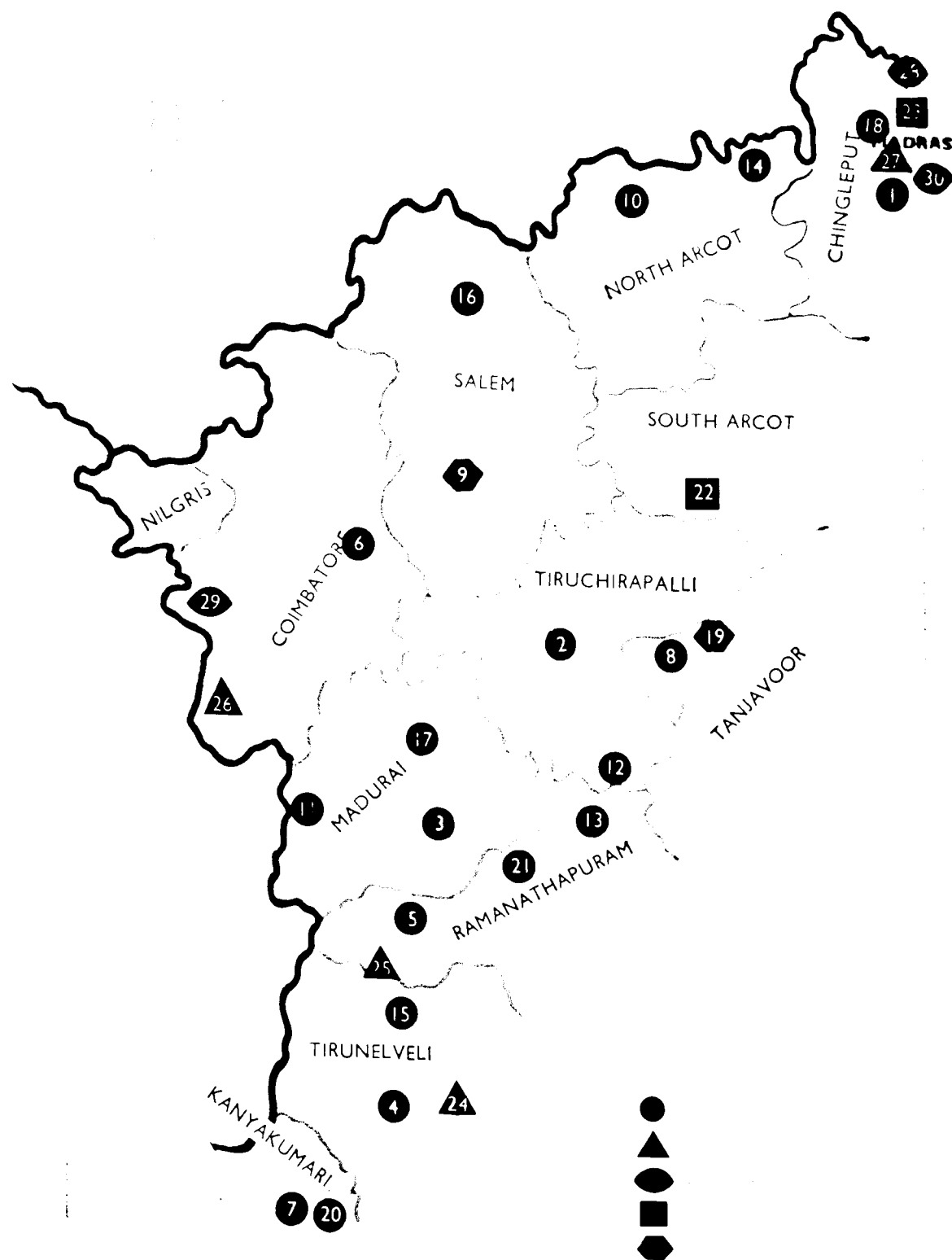


Sri R. VENKATARAMAN
Minister for Industries, Madras

AMBATTUR INDUSTRIAL AREA

LOCATION MAP





AT A GLANCE

THE AMBATTUR INDUSTRIAL AREA

Stages of development	Total area in acres	For factory units	For developed plots	For amenity buildings etc.
I Stage*	630	200	353	77
II Stage†	570	—	387	183

* Acquisition of land, construction of Factory Units and provision of Developed Plots each ranging from 1 to 12 acres in extent have all been completed.

† Land is under acquisition; 72 plots each ranging from 2 to 20 acres are contemplated.

STAGE I — DEVELOPED PLOTS

Industries	No. of plots	Allotted	Balance
Private industries	87	66	21
Government purposes	14	5	9
Petroleum companies	4	4	—
Grand total	105	75*	30

* Number of factories completed at Developed Plots ... 11

Number of factories under construction ... 11

FACTORY UNITS

Types of units	No. of units	Total area (sq.ft.) of each unit	Monthly subsidised rent
			Rs. Ps.
A	10	29,428	1,370 · 34
B	20	28,909	1,189 · 16
C	20	25,141	969 · 48
D	20	22,018	762 · 03

PROGRAMME OF INDUSTRIAL ESTATES IN MADRAS STATE

SRI R. VENKATARAMAN
Minister for Industries, Madras

INTRODUCTION

The inauguration of the Industrial Estate at Ambattur by Sri K. Kamaraj is a significant event in the Industrial Development of Madras State and is an appropriate occasion for recapitulating the history of the Industrial Estates Programme in Madras State and assess the achievements in this field. The industrial scene in our State before the First Plan Period and even during the First Plan was not quite happy. There was no well-developed industry worth mentioning except perhaps the textile industry. Apart from a few spinning mills and stray set of engineering industries situate in the heart of the congested cities like Madras and Coimbatore there was not significant development in the field of Industries. Modern types of small industries using power and upto-date machinery and employing specialised methods were almost absent.

BACKGROUND

THE problem that faced the people responsible for industrial planning in Madras at that time was three fold. Firstly they had to demonstrate to the people that well-equipped modern industries could be started with moderate capital and set up in the various parts of the Madras State. Secondly they had to take steps to intensify the pace of industrialisation by enabling a large number of production units to come into existence in relatively short period. Thirdly they had to ensure that the new development of Industries takes place in a balanced fashion in relation to the various regions of the state and that a well-planned

dispersal of Industries is achieved. The planners had also before them the social objective of providing employment opportunities to a number of people and of enabling even the small entrepreneurs to participate in the exciting adventure of achieving prosperity through production. To achieve these ends, a number of schemes were formulated and implemented during the Second Plan Period. The most important of all of them was the programme of setting up industrial estates, which may perhaps truly be called a package programme for industrial development of the given regions.

IMPACT OF THE PROGRAMME

The industrial estates programme helped considerably to achieve the objective of

dispersing industries to the various corners of the State. It helped the growth of large number of small industries in the quickest possible time. It helped the small entrepreneurs to enter the field of manufacturing by reducing the capital expenditure on land, buildings and general facilities. By setting up a number of service units and demonstration-cum-training units and production units in the Estate covering a variety of new fields like Pressure Die Casting, Electroplating, Enamelling, Foundry, Forge, Woodworking, Tool and Die Making etc., the State not only demonstrated to the Small Entrepreneurs that modern type of small units can be set up with moderate capital but also considerably reduced the capital cost in respect of private entrepreneurs who came forward to set up production units in industrial estates. The emergence of a new class of entrepreneurs viz. 'engineer technician factory owners' has been made possible mainly on account of the industrial estates programme which resulted in the elimination of the delays arising from time factor and cost factor. The industrial estates acted as a nucleus in the industrialisation of the region. Today in the field of Small Scale Industries, Madras State occupies an important position and today we have more than 7,500 small scale industries registered on the list as compared to a few hundreds of small scale industries which existed about 10 years ago. The programme of industrial estates has been not a little responsible for this kind of progress.

WORK DURING SECOND PLAN

It is at the beginning of the Second Plan Period that we undertook to set up industrial estates in Madras. We planned to set up 10 estates containing about 182 factory units, at a cost of Rs. 95 lakhs. But the response for this programme has been so good that by the end of the Second Plan we constructed 9 estates containing 237 units constructed at a cost of Rs. 154.80 lakhs. The

places where the estates were located and the number of units in each estate are given below :

S. No.	Name of the Estate	District	Number of units
1.	Guindy	Chingleput	128
2.	Madurai	Madurai	28
3.	Tiruchirapalli	Tiruchirapalli	22
4.	Virudhunagar	Ramanathapuram	15
5.	Pettai	Tirunelveli	12
6.	Marthandam	Kanyakumari	5
7.	Erode	Coimbatore	7
8.	Thanjavur	Thanjavur	6
9.	Katpadi	North Arcot	14
Total			237

The biggest of the estates constructed in the Second Plan was, of course, the Industrial Estate, Guindy, which is considered to be one of the earliest and one of the biggest and one of the most significant and successful estates constructed in the country. In the course of a few years all the units in Guindy were filled and an amazing variety of lines of production were brought into existence. The lines of production covered a wide range from machine tools, dies and jigs, High Voltage line material, electronic instruments and consumer items like tape recorder, electrical appliances, fans to Industrial products like casting, forgings etc. It has been

the venue of the Seminar on Industrial Estates conducted by the ECAFE and it received words of praise from a number of foreign delegations who attended the ECAFE Seminar. It has also been a venue of the All-India Seminar where ideas of planning of industrial estates were clarified. Similarly the estate at Madurai also received extremely good response from entrepreneurs in the State. All the 237 factory units constructed during the Second Plan Period have been fully occupied and are now used for production purposes. The rate of occupancy is considered to be one of the most marvellous achievements in the country, since the experience in respect of industrial estates constructed in the other parts of the country has not been so spectacularly successful. It has been estimated that in respect of these 237 units an investment of the order of Rs 8.61 crores has been made and that employment opportunities have been generated to the extent of 8,610 persons. This is an outstanding example of generating high employment with low governmental expenditure. A promotional expenditure of the order of Rs. 1.54 crores has resulted in a production investment of Rs. 8.61 crores and an annual production of nearly Rs. 9 crores and has generated employment opportunities to 8,610 persons. Thus by the end of the Second Plan Period the programme had thoroughly justified itself and helped the Government to achieve the social and industrial objectives.

WORK IN THIRD PLAN

During the Third Plan we naturally decided to continue the programme and set up a large number of new industrial estates. The demand for space in the existing industrial estates was also so high that we decided to construct additional 35 factory units in the Estates of Madurai Tiruchirapalli and Erode. 13 new industrial estates with 283 factory units were sanctioned

at a cost of Rs. 320 lakhs. The details of the new estates sanctioned are given below :

S. No.	Name of the Estate	District	Number of Units
1.	Ambattur	Chingleput	70
2.	Madavaram	Chingleput	21
3.	Vridhachalam	South Arcot	29
4.	Theni	Madurai	12
5.	Dindigul	Madurai	25
6.	Karaikudi	Ramanathapuram	18
7.	Kovilpatti	Tirunelveli	18
8.	Pudukottai	Tiruchirapalli	18
9.	Krishnagiri	Salem	18
10.	Arakonam	North Arcot	18
11.	Sivaganga	Ramanathapuram	12
12.	Nagercoil	Kanyakumari	12
13.	Kumbakonam	Thanjavur	12
Total ...			283

Out of these 13 estates sanctioned, construction of 11 estates have been completed and many of them commissioned and the units have been occupied. The Estate at Arakonam is under construction and the other estates are expected to be completed in the near future. A sum of Rs. 321 lakhs have already been spent and owing to the continuous revision and improvement of the plans relating to the estates we expect that the total expenditure of these estates will go upto Rs. 500 lakhs before the end of the Third Five Year Plan.

At the end of the Third Plan the State will have 22 Industrial Estates with 555 Factory Units. Total investment generated will be of the order of Rs. 20 crores and the employment opportunities provided will be of the order 20,000 persons.

FUNCTIONAL INDUSTRIAL ESTATES

During this Third Plan Period we broke new grounds in the programme of industrial estates by setting up a few functional industrial estates, ancillary industrial estates, private and co-operative industrial estates and also a few industrial areas. Functional industrial estates are designed to suit the needs of a group of industries coming under the same category. The most important advantage of a functional industrial estate is the possibility of designing common services and common processing facilities there by leading to an enormous reduction in the capital cost of the individual schemes. The most interesting example of this type of estates in Madras are the Ceramic Industrial Estate at Vridhachalam and the Leather Industrial Estate at Madavaram. In the ceramic industry preparation of the ceramic body is the process which calls for high investment, complicated technical know-how and the employment of specialised personnel. The processing of the ceramic body into various ceramic products is comparatively simple and does not call for large investments. The next stage of firing the moulded, pressed and cast ceramic articles needs special types of kilns which again calls for high investments and complicated technical know-how. In the Ceramic Industrial Estate the Government have set up a unit for manufacturing the body from ceramic clay and other minerals. The Government have also set up the necessary number of modern kilns for firing the ceramic articles. A number of units have been constructed for occupation by small industrialists who can buy the ceramic body from the Government units, process it into various

ceramic articles and have them fired for a fee in the kilns set up by the Government for that purpose. Thus an industry which would normally require large capital investment has been brought within the competence of small entrepreneurs capable of investing only a small capital. Most of the units in the Estate have been occupied and a variety of ceramic and porcelain products are being produced in this estate. Similarly in the Leather Estate common facilities for specific processes have been created to enable superior production of leather articles. In the field of constructing functional industrial estates this State has been a pioneer. During the Fourth Plan Period we propose to concentrate in this field and construct functional industrial estates for fruit preservation industries, for electronic industries, for pharmaceutical industries, for foundry industries and for chemical industries. Each of these industries requires special types of facilities. Electronic industries require costly testing and calibrating facilities; fruit processing industries require special types of construction and common facilities like steam; pharmaceutical industries require special types of construction with air-conditioning, etc., and require supply of water with high purity, fruit processing industries require considerable amount of cold storage and facilities for manufacturing tins, etc. If these common facilities are provided by the service units to be set up by the Government it will lead to a substantial reduction of capital cost of small scale units in these fields and will lead to a considerable development of these industries.

ANCILLARY INDUSTRIAL ESTATES

An ancillary industrial estate is one which houses small industries which cater to the needs of large industries. All over the world large and medium industries purchase a number of bought-out items and have been encouraging small industries to manufacture them. In India Hindustan Machine Tools was the first

organisation to encourage the setting up of ancillary industrial estate. In Madras the Government enabled the manufacturers of Royal Enfield motor cycles to set up a private ancillary industrial estate for the manufacture of various components and ancillary items required in the manufacture of motorcycles and scooters. The Government are currently planning to set up an ancillary industrial estate near Tiruchirapalli to cater to the needs of the High Pressure Boiler Plant. This ancillary industrial estate will produce a variety of items like castings, forgings, turned parts, machined parts and other bought-out items for the Boiler Plant. Our expectation is that there will be normal development of ancillary industrial estates around every major public sector undertaking requiring large amount of bought-out components.

PRIVATE AND CO-OPERATIVE INDUSTRIAL ESTATES

Another significant development during the Third Plan Period is the encouragement given by the State Government to the private and co-operative agencies to set up industrial estates. The private company or the co-operative society is expected to raise by way of share capital 20 per cent of the cost of the industrial estate, viz, cost of the land, buildings, and general facilities like water supply, power supply rates, etc. The remaining 80 per cent of the cost is given by way of long term loan by the Government. The loan is generally repayable in 15 annual instalments. The rate of interest charged so far has been 3½ per cent per year rising to 4½ per cent in stages after 5 years. In future, owing to the high rates of interest at which the State Government have to borrow funds, it is proposed to give the loan at 7 per cent. So far 4 co-operative estates and 2 private estates have been sanctioned. Of these, a

private estate near Tiruvottiyur has already come into existence. The other estates at Tuticorin, Sivakasi, Pollachi, Vyasarpadi, Coimbatore and Velacheri are in Progress. A total loan assistance of Rs. 108 lakhs has been sanctioned so far. The State Government has been trying to negotiate with the Life Insurance Corporation of India for securing loans for this purpose and recently the State Government has succeeded in securing Rs. 110 lakhs from the Life Insurance Corporation of India for sponsoring private estates and co-operative estates.

INDUSTRIAL AREAS

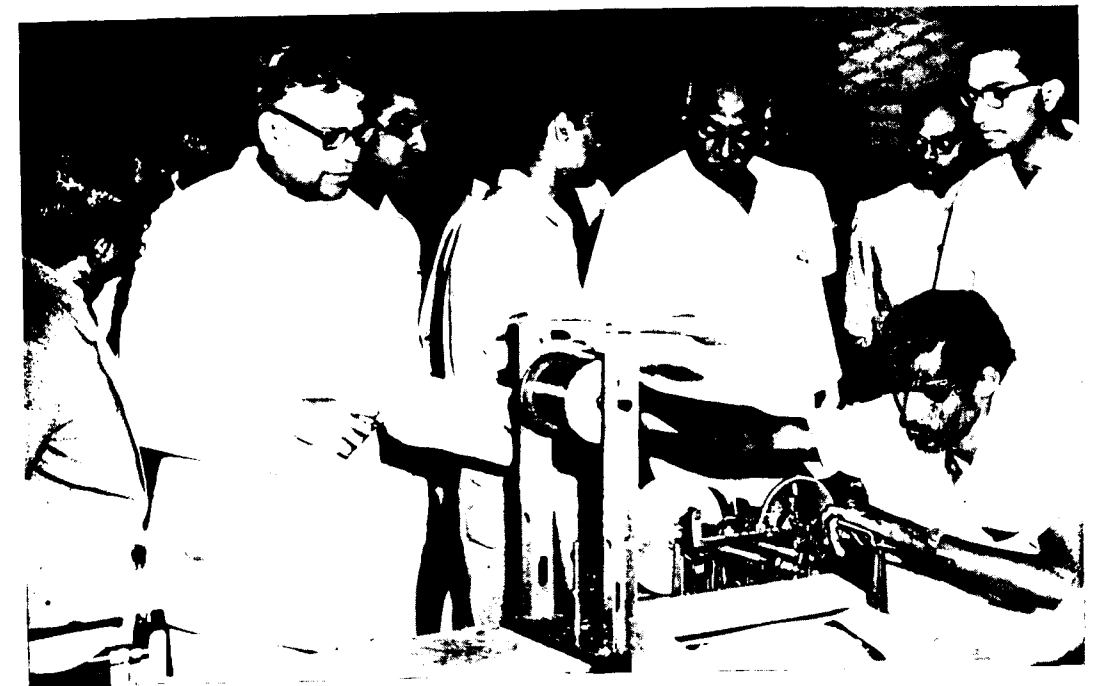
The most significant development during the Third Plan Period, however, is the introduction of the concept of the industrial areas in the industrial estate programme. This scheme has been introduced for the first time in the Industrial Estate at Ambattur, where an extent of 1,200 acres has been acquired for the purpose of providing developed industrial sites. The adjoining area is being acquired by the State Housing Board for developing a large extent of residential area. The successful completion of the industrial estate at Ambattur is an important event in the industry history of Madras State, since it provides for an integrated development of large, medium and small industries through mutual co-operation and assistance. Similar industrial areas are also being planned in half-a-dozen other places in the State.

OUTLOOK FOR THE FOURTH PLAN

The success so far achieved in the industrial estate programme in the Third Plan indicates that we should continue the programme during the Fourth Plan. We propose to set up 15 normal functional industrial estates. Besides this, special attention will also be paid for setting up a number of functional

Industrial estates and ancillary industrial estates. Setting up of private and co-operative industrial agencies will receive special attention. Developed industrial sites will be provided in twelve places in the State. A sum of Rs. 10.3 crores has been provided for this item of development during the Fourth Plan Period. The Madras State Industrial Development Corporation Limited which has recently been set up will undertake the work relating to industrial areas. The Madras State Small Scale

Industries Corporation Limited which is proposed to be set up very shortly will most probably take up the work regarding the setting up and administering the conventional industrial estates. We have no doubt, that with the creation of the new organisations and with the allocation of larger funds and with the experience so far gained, we will continue to be successful in implementing the industrial estates programme.



Sri K. Kamaraj along with the Minister for industries visited the Ambattur Industrial Area on 12-4-1963.



An impressive row of ready built factories in Ambattur Industrial Area.



An exterior view of an 'A' type unit in Ambattur Industrial Area.



The Post Office building.

Industrial Development in the Madras State

The pace of Industrial Development in Madras State has gathered considerable momentum during the last decade and presents an interesting study of the factors that have been instrumental in increasing the tempo of industrialisation notwithstanding a conspicuous inadequacy of natural resources. A determined and purposive policy direction at the governmental level and the co-operation of the public, the policies adopted by the Central and State Governments in respect of power and transport development, institutional financing, servicing facilities for the private industrialists, training of technicians and skilled workers and the dispersal of industries have all contributed to the rapid industrialisation. Similarly, the diversity of industrial production seen in the State to-day owes not a little to the imagination and initiative of the entrepreneurs.



Sri T. N. LAKSHMINARAYANAN, I. A.
Secretary to Government, Industries,
Labour and Co-operation Department

CENTRAL PROJECTS

A PROMINENT aspect in the industrialisation of Madras State is the important role played by the Public (Central) Sector. *The Neyveli Lignite Project* is perhaps the largest of the Public Undertakings providing employment to over 18,600 persons. Upto the end of 1964, a quantity of 2,699 million tons of Lignite has been mined and used mainly for power generation. The work relating to stepping up the capacity of the first mine-cut from 3.5 million tons to 5.5 million tons in the first stage and to 6.5 million tons in the second stage has also been taken on hand.

The Integral Coach Factory employing nearly 10,000 workers is the oldest of the Public Sector Factories in Madras. It has reached its full production capacity of 700 coaches per year on double shift. And in the initial years of the Fourth Plan, this unit may also step up its production capacity to about 800 coaches per year.

The Hindustan Teleprinters Limited with a licensed capacity of 1,300 teleprinters per year has produced 799 units of teleprinters during the period between April and December 1964. It has provided employment opportunities for about 365 persons. It is proposed to produce about 3,500 machines per year by 1970-71.

The Surgical Instruments Project which is being implemented by the Indian Drugs and Pharmaceuticals Limited of the Government of India with the Russian collaboration provides employment to about 1,200 persons. Production is expected to be commenced in the middle of 1965 and during 1965-66, 35 items of surgical instruments will be taken up for trial manufacture. The Tool Room of this Project has already been commissioned and started manufacturing the toolings required for the manufacture of surgical instruments.

The Hindustan Photo Films Manufacturing Company, located near Ootacamund is designed for the manufacture of various types of sensitised photographic materials, commencing production during this year. It is set up with French collaboration.

The High Pressure Boiler Plant, established by Bharat Heavy Electricals Limited of the Government of India, is expected to commence production during this year. Construction work is progressing according to schedule and one of the three main production shops has been completed. The machinery has also been erected. The project has at present 2,000 persons on its roll. It will produce boilers required for the Thermal Power Plant.

Defence Industries: The Construction of the Heavy Vehicles Factory of the Government of India located at Avadi is nearing completion. Similarly the construction work relating to the Small Arms Factory near Tiruchirapalli is also making rapid progress. They are expected to provide employment opportunities for over 3,000 and 10,000 workers respectively.

STATE PROJECTS

The State Government have also played a significant role in establishing production units either directly or in the form of co-operatives in respect of certain essential commodities like yarn, sugar and bricks. The State Government have also taken on hand two major projects for the manufacture of mild steel billets and Portland cement. The

Continuous Casting Mill with a production capacity of 1,00,000 tons of mild steel billets per year is being established near Arakonam at a capital cost of nearly Rs. 3.5 crores. The Cement Plant proposed to be set up near Rajapalayam will have a capacity of 1,200 tons of Cement per day and will involve a capital outlay of nearly Rs. 5 crores.

The Government have set up the Madras Industrial Development Corporation with an authorised capital of Rs. 10 crores for the purpose of setting up and administering large scale industrial undertakings in the State. The Corporation will also undertake the work of developing well-planned industrial areas for promoting and dispersing industries.

PRIVATE SECTOR

The Private Sector in the State has displayed excellent initiative and imagination and has made full use of the facilities and incentives offered by the governmental agencies and has brought into existence the large variety of lines of production.

Automobile Industry: In the field of Automobile Industry, Madras has made considerable progress and has been described frequently as the 'Detroit' of India. Standard Motor Products with a capacity of 3,000 cars per year has been set up in this State. Messrs. Ashok Leyland are producing about 2,835 trucks per year. They have planned to expand their capacity to 6,800 commercial vehicles per year. Simpson and Company who have been manufacturing Perkins Diesel Engines with a capacity of 16,500 nos. per year have also been recently licensed to manufacture 12,000 numbers of medium trucks. Standard Motor Products have also been recently permitted to manufacture 1,500 nos. of 1 ton trucks per year. Enfield India Limited are producing motor cycles and three-wheelers and they have recently started manufacturing scooters and two stroke engines of small horse power for fitment to scooters and agricultural equipment. In the field of Automobile ancillaries, Madras leads the

country. A large number of units have been licensed for the manufacture of a variety of components valued at Rs. 18 crores per year and mention in this connection has to be made of Wheels India, Brakes India, T. V. S. Lucas, T.V.S. Clayton, Messrs. Engine Valves Ltd., Messrs. Rane Ltd., Messrs. Carburettors Ltd., India Radiators Ltd., Messrs. Sakai Garlick have been licensed to produce 100 road rollers per year and they have already gone into production.

In the field of agricultural equipment Messrs. Tractors and Farm Equipment Limited have been manufacturing Ferguson Limited have been manufacturing Ferguson Tractors and attachments for tractors with a capacity of 3,500 tractors per year. A letter of intent has also been issued recently for the establishment of a factory for the manufacture of power tillers with Japanese Collaboration.

In the Electrical Engineering field production capacities have been created for a wide range of products like Transformers Switch gears, various types of relays, cables, ACSR Conductors, Insulators, electric meters, fluorescent tubes, lamps, dry cells, storage batteries, transistors, etc. In the field of power-driven pumps and motors Madras leads the Country.

INDICATORS OF PROGRESS

The magnitude of the development that has taken place during the last 14 years can be gauged by a study of a number of general indicators of industrial progress. The figures pertaining to the direct indicators like the grant and implementation of industrial licences, registration of Small Scale Industries and the increase in the contribution of Industries Sector in the State Income and the data relating to indirect indicators such as the consumption of power for industrial purposes, registration of factories and companies, formation of capital, employment provided and the output of technical personnel show a

happy trend in the industrial sphere. The following graphical features amply illustrate this fact.

Factory Registration:—There has been a steady increase in the number of factories registered during the period between 1956 and 1964. The number of factories has risen from 4,618 at the end of 1956 to 6,836 at the end of 1964. This marks an increase of 48 per cent over a period of 8 years.

Employment: Similarly, employment provided rose from 290,240 at the end of 1956 to 370,000 at the end of 1964 showing an increase of 19.5 per cent during the same period.

Year	Number of Factories at the end of the year	Employment provided
1956	4,618	290,240
1961	5,803	324,418
1962	6,457	335,747
1963	6,572	347,000
1964	6,836	370,000

Power Consumption: During the period between 1950-51 and 1964-65, the power consumption for industrial purposes increased by 400 per cent. The Table below indicates the power consumed in each year and also the anticipated power consumption in the year 1965-66.

Year	Power consumed in million units	
1950-51	...	320
1955-56	...	540
1960-61	...	908
1963-64	...	1,250
1964-65	...	1,600
1965-66 (anticipated)	...	2,300

Registration of Companies: It is also noteworthy that there was a steady increase in the total number of both Public and Private Limited Companies registered. Out of the total of 2,284 new companies registered from 1951 to 1964, 286 are in the Public Sector and 1,998 are Private ones.

During 1964 alone, 32 Public Limited Companies and 117 Private Limited Companies were registered with the total authorised capital of Rs. 25.66 crores and a paid-up capital of Rs. 29.76 lakhs.

Year	No. of New Public Companies	Private Companies	Total
I Plan Period (1951-56)	121	465	586
II Plan Period (1958-61)	53	847	900
III Plan Period (1961-64 December)	112	686	798
Total	286	1,998	2,284

Technical Personnel: In the matter of the output of the technical personnel also, a steady increase has been obtained. During the years 1951 and 1961 to 63, the outturn of the number of Engineering Degree and Diploma Holders were 2,558 and 5,434 respectively. The output of Craftsmen were 9,831 during 1961 and 1963. The outturn anticipated in 1965-66 is of the order of 1,442, 3,130 and 8,268 Diploma Holders, Degree Holders and Craftsmen respectively.

Category	Output during the year				Output anticipated in 1965-66
	1951	1956	1961	1963	
Engineering Degree Holders	525	1,136	3,567	5,434	1,442
Diploma Holders	496	618	2,170	2,150	3,130
Craftsmen	—	—	3,163	6,665	8,268

State Income: There has been a steady increase in the total state income and in the contribution of the Industries Sector to the State Income during the last four years. The contribution of the Industries Sector to the State Income in 1960-61 was 16.5 per cent while by 1963-64 it rose to 17.75 per cent. At present, it is estimated to be of the order of 18 to 19 per cent.

Year	Total State Income (Rs. in crores)	Contribution of the Secondary Sector (mining, Manufacturing, Small Enterprises etc.)	Percentage contribution of the Secondary Sector to Total State Income
1960-61	1,120.97	181.06	16.15
1961-62	1,174.71	195.79	16.67
1962-63	1,281.81	211.86	17.20
1963-64	1,292.49	229.48	17.75

Industrial Licensing: In respect of Industries other than Textiles, 617 licences under the Industries (Development and Regulation) Act, 1951, have been granted for large and medium industries in Madras State upto 31-12-1953. Of these, 341 licences have been fully implemented and these factories are under production. About 200 licences are in various stages of implementation and are likely to be implemented in full in the course of a year or two. 76 licences have been revoked.

During the year 1964, the Government of India issued 33 Industrial licences and 31 letters of intent in respect of Industries other than Textiles. These cover a wide variety of new lines of production.

NUMBER OF LICENCES ISSUED UNDER THE INDUSTRIES (Development and Regulation) Act, 1951. (excluding Textiles)

Industry	Licences issued			Total	Licences implemented (i.e.) Units under production	Licences under progress	Revoked
	First Plan 1-4-51 to 31-3-56	Second Plan 1-4-56 to 31-3-61	Third Plan 1-4-61 to 31-12-63				
1. Metallurgical	9	59	35	103	43	41	19
2. Engineering (Mechanical)	16	190	55	201	121	63	17
3. Engineering (Electrical)	4	45	14	63	85	21	7
4. Chemical-Fertilizers, Heavy Chemicals, fine chemicals, P.V.C. Paints, Explosives, Insecticides etc.	19	48	20	87	54	25	8
5. Food-Sugar, Alcohol, Flour, Vegetable Oils, Vanaspathi etc.	11	83	16	60	80	17	13
6. Miscellaneous-Paper, Soaps and Cosmetics, Rubber, Leather, Glass, Ceramics, Cement, Timber Products etc.	9	66	28	103	58	33	12
Grand Total	68	381	168	617	341	200	76

Textiles: In the field of textiles, Madras occupies the second position in the whole country. This is the largest single industry in Madras State. The number of Mills as on 31-8-63 was 144 with 3,364,716 and 8,586 spindles and looms respectively employing 101,922 workers.

During the year 1964, the Government of India granted 13 licences for setting up new spinning mills. The total number of spindles covered by these licences is of the order of 156,000. During this year, the Government of India also granted 102 licences for substantial expansion. The licences so granted cover a

total spindleage of 975,156 and with the grant of these licences, the total number of spindleages in Madras State as on 31-12-64 was 4,819,000. Out of this as on 31-12-64, 3,912,816 spindles were installed and there were 131 spinning mills and 25 composite mills. The automatic looms so far installed amount to 8,315.

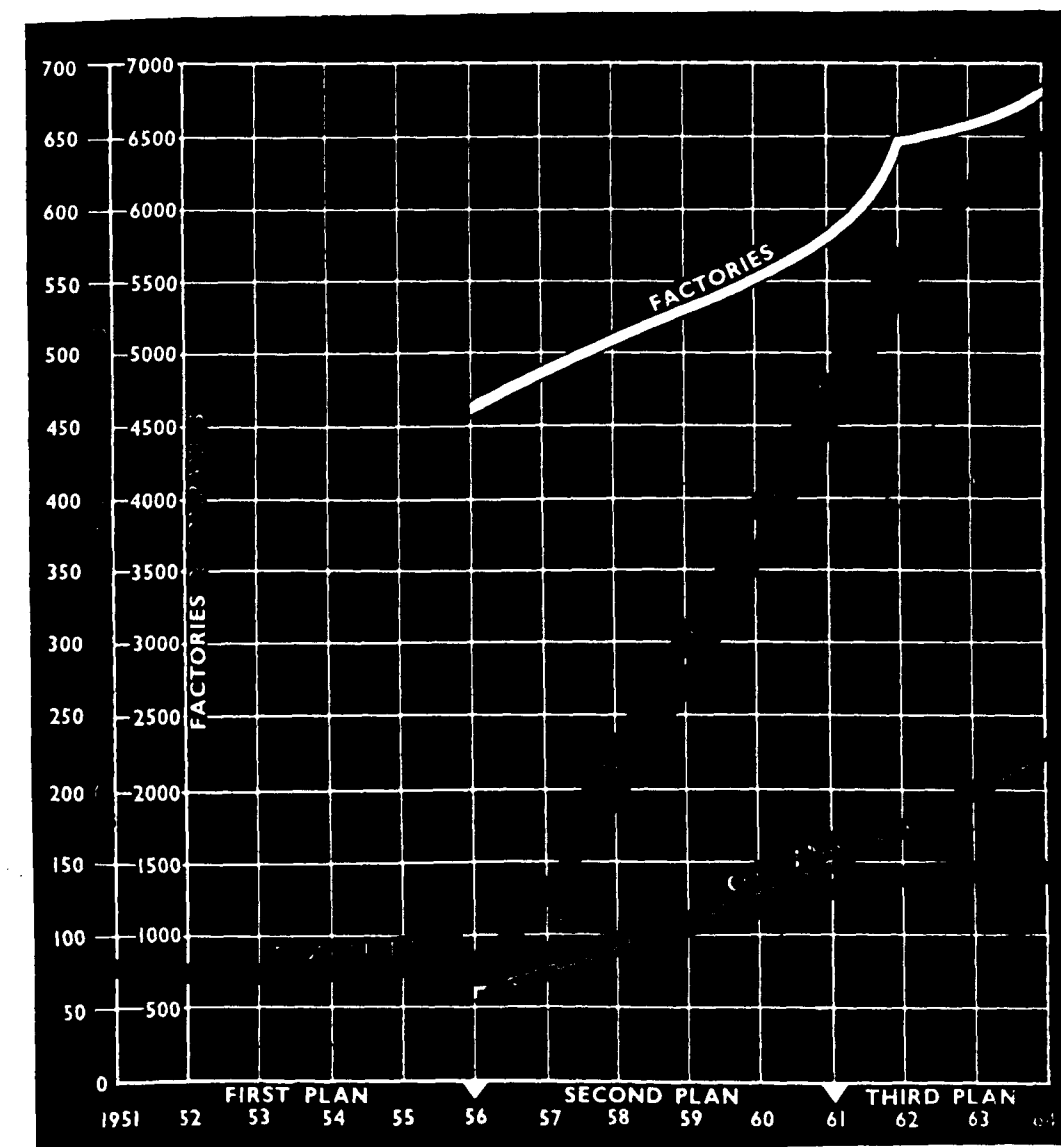
Besides, the Rs. 10 crores project, the South India Viscose Ltd., established near Mettupalayam has an installed capacity for the production of 8 million pounds of staple fibre and an equal quantity of Rayon.

A letter of intent has also been issued to an industrialist for the establishment of a Polyester Fibre Plant in Chingleput District with a production capacity of 2,000 tons per year. The capital investment of this project will be of the order of Rs. 3 crores.

Year	No. of spinning mills	No. of composite mills	Total number of mills	Spindles	Looms
1-1-1951 (inclusive of Andhra)	59	18	77	1,862,557	7,566
1-1-1956	58	24	82	2,171,276	8,016
1-1-1961	109	25	134	3,141,841	7,846
1-1-1964	119	25	144	3,997,690	8,586

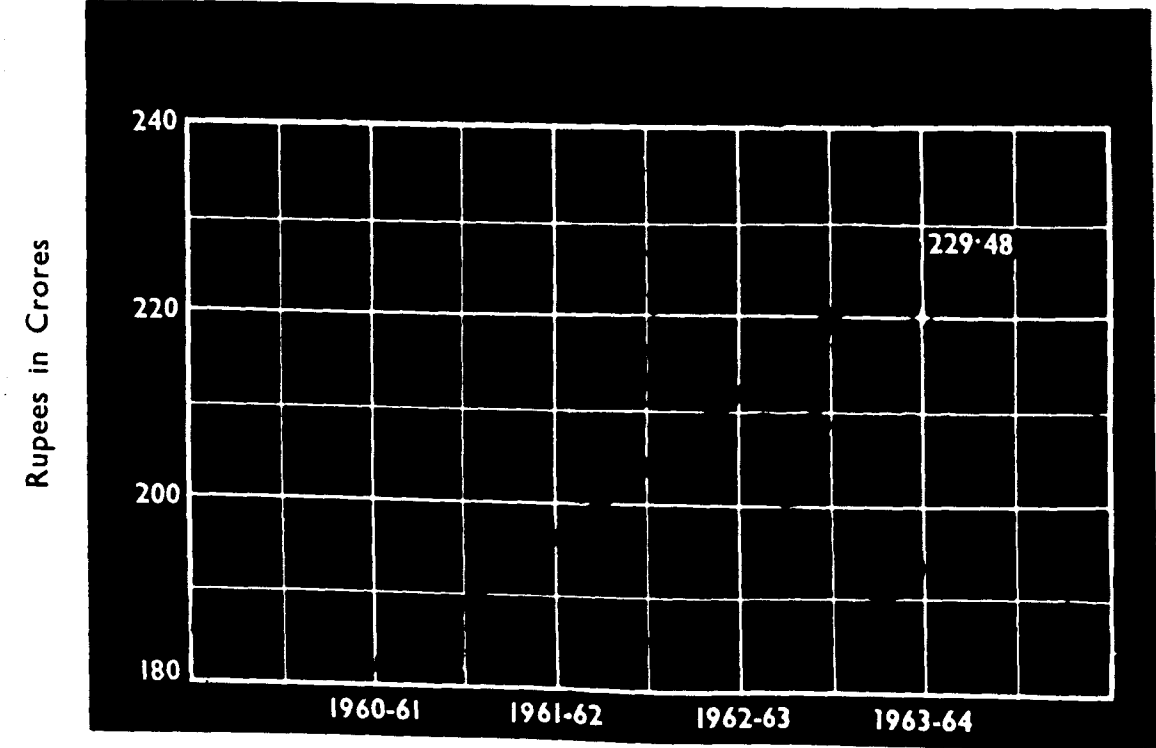
Small Industries: The Development of Small Industries has also been remarkable. During 1964, 1,140 small industries were given registration by the Directorate of Industries and Commerce. The total number of Small Scale Industries registered in the State as on 31-12-1964 was 7,471.

INDUSTRIAL LICENCES ISSUED AND COMPANIES & FACTORIES REGISTERED

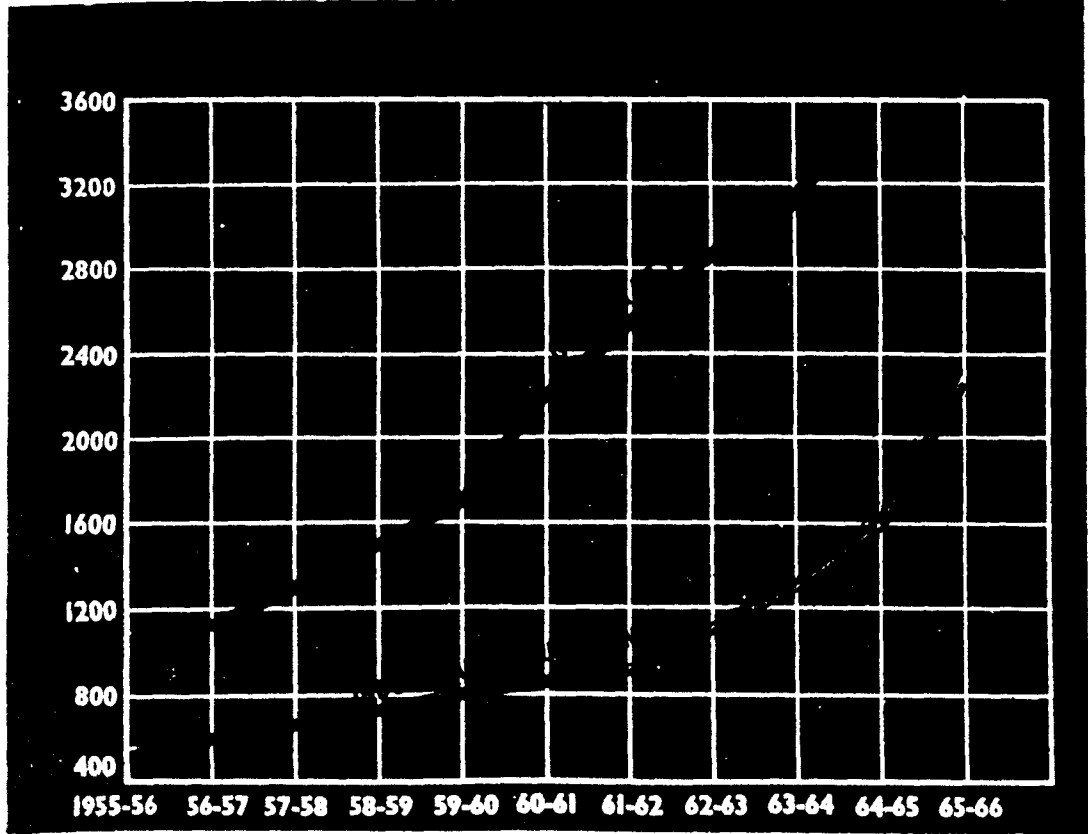


CONTRIBUTION OF INDUSTRIES SECTOR TO STATE INCOME

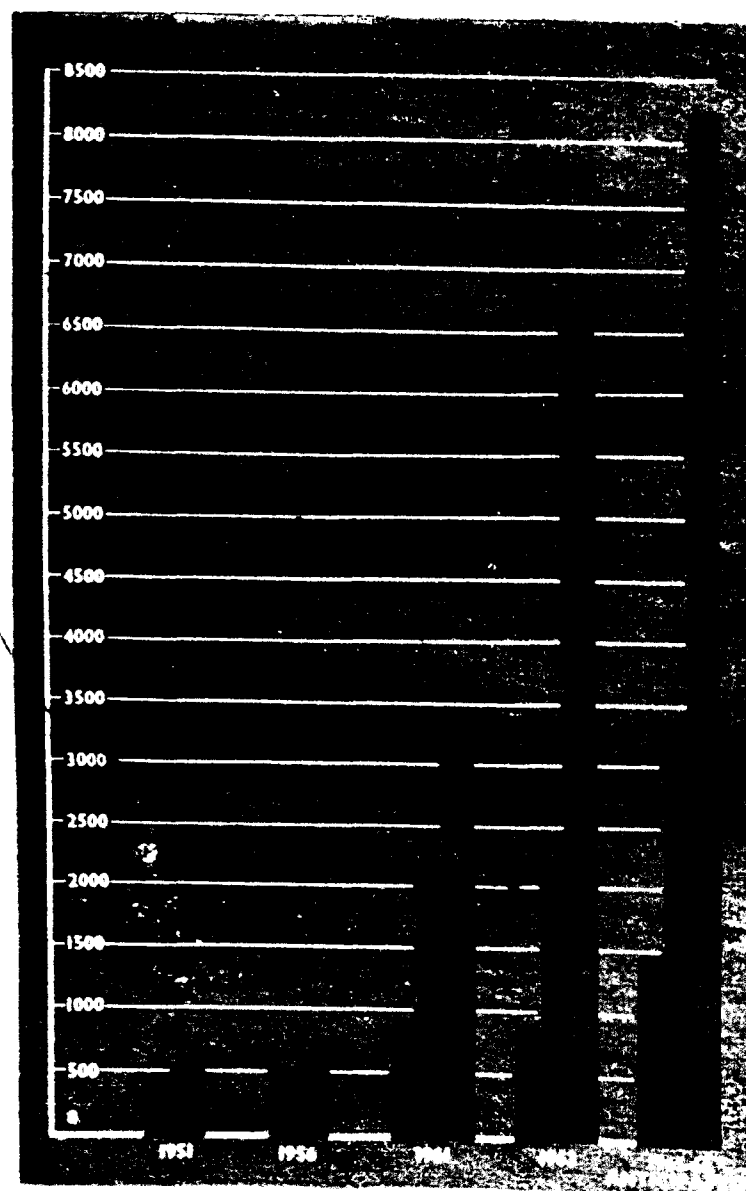
AT 1960-61 PRICES



GENERATION & INDUSTRIAL CONSUMPTION OF POWER
IN MADRAS GRID



TECHNICAL PERSONNEL
(Output during each year)



Some Thoughts on the Promotional Role of the Government in Industrial Locations

The inauguration of the Ambattur Industrial Estate constitutes a landmark in Industrial Development in the State. For a period of 13 years Large Scale Industries, Medium Scale Industries and Small Scale Industries have been established and have grown rapidly and smoothly contributing to an active industrial complex. In this development, the Madras Government has kept in view the need for balanced development. Where an entrepreneur is able to go ahead on his own, he receives all encouragement from the Government. It was found however, that the initial period of gestation was, in some cases, unduly long. A detailed study of the reasons for this lengthy process was made and as a result several steps were taken to reduce this period. The setting up of an industrial area in Ambattur is, in effect, a culmination of this process. This is a unique example of how the State can, by careful preliminary planning and concerted efforts reduce considerably the time between the conceiving of an Industrial Unit and its actual establishment.

Sri T. A. S. BALAKRISHNAN, I. A. S.,
Director of Industries & Commerce, Madras

THE location of a site, the acquiring of land by purchasing after negotiations, ensuring clear title to this land over a period of 20 years, getting approvals from the Municipal authorities, the Factories Department, the Electricity Board and other Governmental agencies is naturally a time consuming process. In the first and second five year plans, 22 industrial estates and colonies were established all over the State. Today there are 397 Units in these Estates and Colonies of which 300 have been allotted to the entrepreneurs. The others are in the process of allotment.

In the Industrial Estate or Colony a type design building is put up and is hired to the

entrepreneur at a nominal rent, initially. The rent gradually increases reducing the element of subsidy in these rentals. Eventually the entrepreneur pays an economic rent which ensures a reasonable return on the money invested by the State in the setting up of these estates and colonies providing them with roads, sewage, electric power and water.

In this arrangement the entrepreneur gets a standard unit. For most small scale ventures such a standard unit is ample.

In the case of other entrepreneurs who want units tailored to their specific needs and requirements it is obvious that a different pattern of assistance was indicated.

DEVELOPED PLOTS

Out of this arises the concept of industrial areas. In this project Government acquired initially at Ambattur (and subsequently in other parts of the State) large extents of land suitable for setting up industrial establishments. These lands are developed by levelling them, by providing a lay-out and by laying roads and pipes for water supply and drainage. By organising power supply on a comprehensive basis and providing common amenities such as Banks, Post Offices, Police Stations, Housing Tenements, etc. As soon as these are done the lands are parcelled into units of 10 and 20 acres and sold to the entrepreneur at cost. In the initial stages the entrepreneur is fully extended in the matter of monetary resources. Hence Government have decided that the cost of these lands would be paid by them in three instalments. In Ambattur, developed plots of five or 10 acres can be purchased at Rs. 16,000 an acre of which Rs. 8,000 is payable immediately, Rs. 4,000 is payable at the end of 24 months and the other Rs. 4,000 at the end of 36 months. In addition to this the occupants of the plots would pay a recurring charge fixed from time to time by the Government to cover the annual maintenance charges of the developed area.

Ambattur which is 17 miles from the Madras Airport and 11 miles from the Madras Harbour and 3 miles from the Madras City limits was the first choice for this kind of experiment. Here Government have acquired 1,221 acres of land. The scheme has been divided into 2 stages. Initially 630 acres of land abutting the Madras-Avadi Road has been taken up for development. Out of this 150 acres has been set apart for a conventional Industrial Estate. 450 acres have been developed and parcelled into lots of 1, 2, 5 and 10 acres each.

GEOLOGICAL STUDY

Before setting up this industrial area, a detailed and thorough study of all factors was undertaken by the Government. The Geology of the area and the load bearing capacity of the soil was surveyed in great detail. The load bearing capacity of the soil was found to exceed the safe limits by approximately 1 tonne per sq. ft. in most places. Climatological details in regard to temperature and rain fall were collected for this area. Investigations were conducted in regard to the availability of sub-soil water. The sub-soil water sources are being harnessed for the supply of water to the growing industrial complex in Ambattur area. Provision has been made for a railway siding in the second stage. Criss-cross power

lines over the area have been shifted and have been re-aligned along the main road. Space has been set apart for 2,000 labour tenements. An Industrial Institute for training skilled labour is being put up. Eventually, a testing laboratory is being located in this area. Special attention was paid to the disposal of effluents as it is proposed to have some chemical and fruit processing industries as part of the complex.

FACTORY UNITS

In the first stage 70 units have been put up in the conventional industrial estate. All these have been allotted. As on date, 58 of these units have gone into production. The cost of land and cost of construction of these units comes to about Rs. 1.75 crores. The 70 entrepreneurs are likely to invest approximately Rs. 2 crores by way of plant and machinery in these units which may eventually increase to Rs. 4 crores. With this, in the course of a year or two, we would be having a production of approximately Rs. 5 crores increasing to Rs. 10 crores in about four years. At present 3,000 people are employed in the functioning units. When full production is achieved about 10,000 people are likely to be employed in the conventional Industrial Estate alone.

In the first stage there are 105 developed plots. Of these, 75 have been allotted already. Allotments are being done after careful scrutiny. Units that require large quantities of water are excluded from this area. The accent has been on setting up light engineering industries. In such industries skilled labour will be employed in substantial numbers. When all the 105 plots are occupied the entrepreneurs are likely to spend about Rs 2.5 crores on buildings. They are likely to install machinery to the extent of Rs. 10 crores initially increasing to Rs. 15 to 20 crores. There will be employment potential of about 22,000 when all the plots are occupied and factories start functioning. It may take a period of 8 to 5 years to achieve these targets.

In the normal course, for these 150 entrepreneurs to acquire these facilities and to be in a position to commence production they would have taken considerably longer time. Moreover several entrepreneurs who have now come here to avail themselves of these facilities might have decided to go elsewhere or might have postponed their projects. The one important result of this experiment is that these entrepreneurs have picked up courage and taken the necessary management decisions for going



into production in view of the ready availability of these facilities. It could be truly argued that the pace of industrial development in this area has been quickened and the quantum of industrial development has been enlarged by Governmental foresight and adequate planning. As an economic weapon for rapid industrial development, for setting up substantial production activity, and for providing employment on a large scale, the industrial area has proved itself as an adequate and worthwhile instrument.

It will also be argued that the industrial area might not have been successful if it had been attempted earlier. The climate for the utilisation of these facilities has been prepared by a comprehensive and concerted plan for developing industries all over the State. A large class of traders, a smaller class of technicians and the number of businessmen of various types and categories have in the course of the last 10 years been impressed by the growing development. Their thoughts and actions are attuned to making use of the opportunities for industrial development. The industrial area has come not a day too soon. That there was a need for such facility is abundantly proved by the large number of applicants both for developed plots and factory units. In the first stage of development, this industrial area has received encouragement from the entrepreneurs quickly and decisively ensuring that the funds invested in this experiment are made use of without any delay.

Sociologically this is a step in the right direction. If these facilities had not been made available by the Government, it would still be true to say that the entrepreneurs would have by their skill, ingenuity and perseverance, fashioned these facilities for themselves, probably at greater cost and after a longer interval of time. Individual entrepreneurs can always be relied upon to overcome such difficulties and establish industrial units

However, the provision of these facilities has aided and encouraged development. It would also be true if one claims that much of these developments would have come in insanitary and congested conditions inside the Corporation limits. The setting up of an industrial area in the rural parts away from the City with adequate provision for labour tenements has resulted in this development proceeding on right lines.

RURAL INDUSTRIALISATION

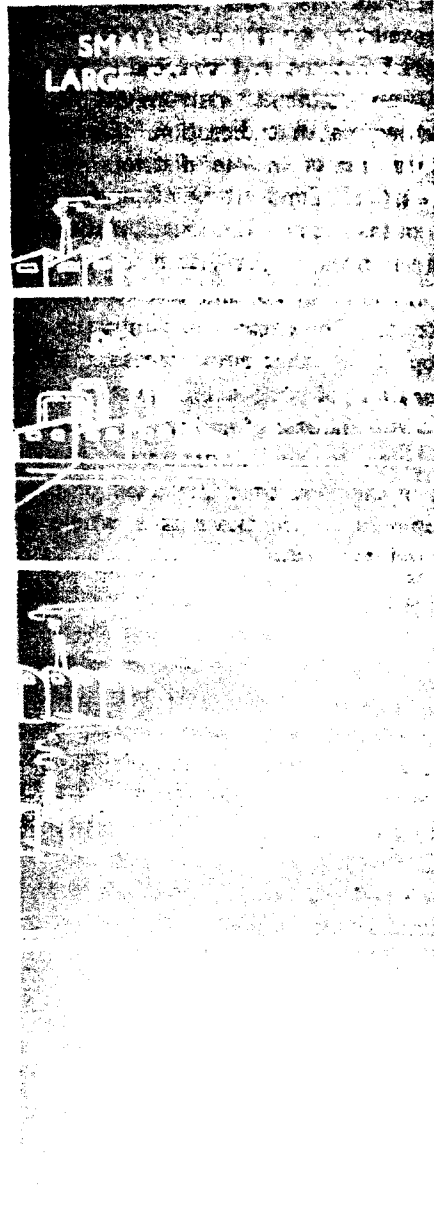
This development has further given the Government courage to embark upon similar projects outside other important towns in this State. Such industrial areas are being set up in Ranipet, Cuddalore, Tiruchi, Mettur, Tirunelveli, Arkonam, Madurai, Salem and Erode. It will take a longer time for entrepreneurs to occupy these areas and establish units. There is an understandable reluctance on the part of the entrepreneurs to go into the districts. This arises from two reasons. Firstly, most raw materials have to be transhipped to these areas from Madras, especially iron, steel and imported raw materials. Secondly, the market for its products is in Madras or the other State capitals. In order to develop these industrial areas in the rural parts there would appear to be a case for some slight monetary incentive. This is an aspect to which both private enterprise and Government should give some thought. The understanding and co-operation between Government and private enterprise in this State has been excellent, and it should not be difficult to find a suitable solution for the problems of encouraging quick development in the districts.

Our experience in regard to industrial development has shown us that in the rural areas industrial estates develop at a somewhat slower pace. In most of the second five year plan estates, the pattern has been to provide between 20 and 25 units. In the course of five years all these are occupied. The average

cost of land and building of these 20 to 25 units is of the order of Rs. 10 to 15 lakhs. The plant and machinery that the entrepreneur installs in these units is of the order of Rs. 20 to 25 lakhs. At the end of five years we get a production of Rs. 20 to 25 lakhs per annum of these estate units and an employment of 250 to 400. The rate of development in each individual industrial estate depends partly upon the enterprise of the individual and partly upon the development of local markets. Essentially in the small enterprise the proprietor depends to a considerable extent upon his local customers. It is only in rare cases that he is able to attach himself to larger units in the metropolis from whom he gets regular orders for his bread and butter lines. With the development of large, and medium scale industries in the metropolis in the next five years their dependence for components and accessories on small industrial units in rural areas will increase rapidly.

A balance has to be struck between the development in the metropolitan areas and development in the districts. Rural industrialisation is an urgent necessity and we should as far as possible encourage entrepreneurs to go out to districts. The Industrial Estates and the Industrial colonies have been excellent instruments in guiding them towards that direction. By putting up Industrial areas in the districts we will be advancing this kind of development. It is in this context that the inauguration of the Industrial area in Ambattur is an important stage in the progress and development of the industries. The pattern in Ambattur will now be copied in the rural areas. With the co-operation of large-scale industries and the small-scale industries and with the encouragement given by the Government, there is no doubt in the fact that the pace of industrial development in the State as a whole will be rapid and successful.

KNOW THE INDUSTRIAL



Unlike the conventional type of Industrial Estate which entertains only Small Scale Industrialists, the Ambattur Industrial Township is designed to accommodate Small, Medium and Large Industries.

Provides not only ready-built Factory Units for Small Industrialists, but also Developed Plots for Small, Medium and Large Industries for the entrepreneurs to put up their own buildings.

Lies in an Important Industrial Belt of the City where a number of large industries like I. C. F., Central Heavy Vehicles (Tanks) Factory, T. I. Cycles, T. V. S. Group, Dunlop, Omega Cables etc. are located.

It is situated at a distance of 3 miles from the Municipal Limit and 8 miles from Madras Fort.

It spreads on either side of the Madras-Avadi Road and the Madras-Arakonam Broad Gauge Railway Line is its northern boundary.

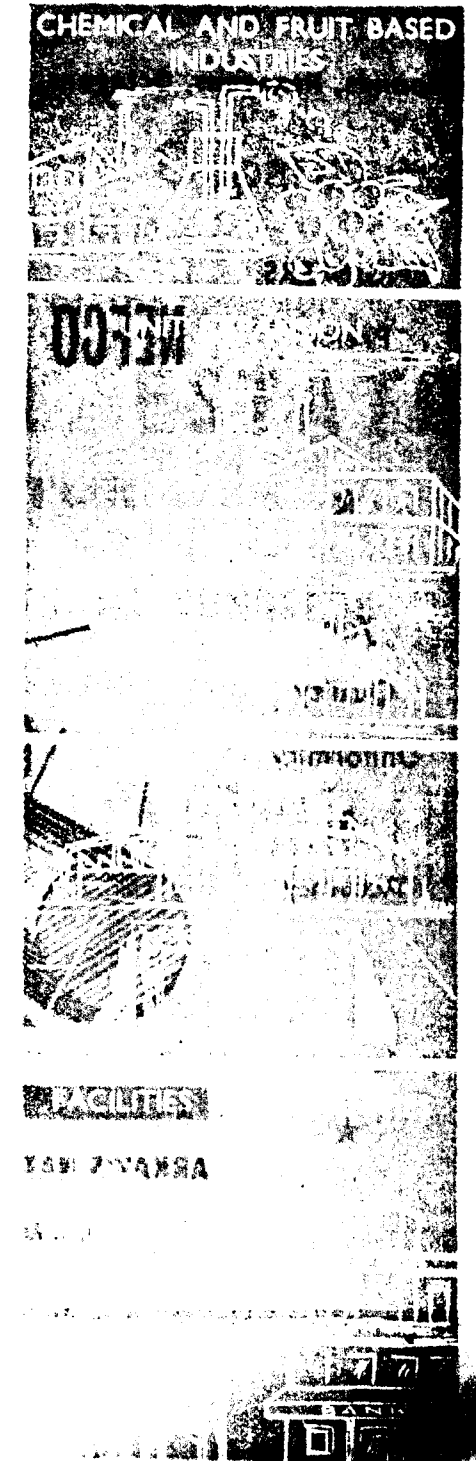
AREA. AMBATTUR

Space is being provided for the location of Chemical and Fruit-based Industries with amenities like steam, cold storage, tin-can making unit etc.

The Factory Units are so designed with plenty of open space as to allow easily the future expansion. For instance, a 'B' Type Unit can be expanded into an 'A' Type by adding two more bays and a 'D' Type into 'C' Type by a similar procedure.

Only subsidised rent is charged for the units in the initial stages. The cost of the Developed Plots is recovered in instalments.

Labour Tenements, Transport Facilities, Power and Water Supply, State Bank, Petrol Bunk, Industrial Training Institute, Residential Accommodation and Departmental Common Service Centres are all provided.



M. S. BRIGHT BARS & SHAFTINGS

Size $\frac{1}{4}$ " to $2\frac{1}{4}$ "

Rounds, Hexagons, Octagons, Squares, Flats & Other Special Sections

ENGINEERS

Prefer

NEFCO

**BRIGHT
STEEL
BARS**



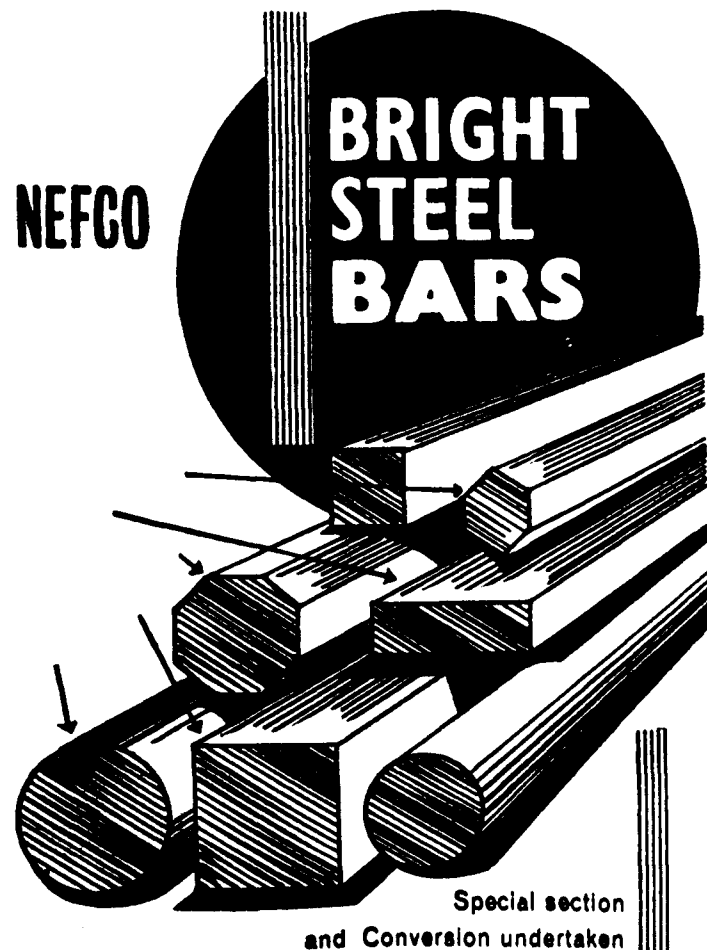
for

Quality

Uniformity

&

Accuracy



Special section
and Conversion undertaken



Manufactured by

ARKAY'S NATIONAL ENGINEERING & FOUNDRY CO.

BRIGHT STEEL DIVISION

C-1, Ambathur Industrial Estate. MADRAS-50.

Felicitations to
Industries & Commerce Department
on the occasion of the
inauguration of the

INDUSTRIAL ESTATE

AMBATTUR

BY THE
PRESIDENT, INDIAN NATIONAL CONGRESS



BEST & CO. (MANUFACTURERS) PRIVATE LTD.

Unit No. A '8'

AMBATTUR INDUSTRIAL ESTATE

MANUFACTURERS OF SPECIAL TELEPRINTER DRIVE MOTORS AND
COMPONENTS FOR AUTOMOTIVE AND ELECTRICAL INDUSTRIES

Registered Office : 13/15, NORTH BEACH ROAD, MADRAS-1

Kerry

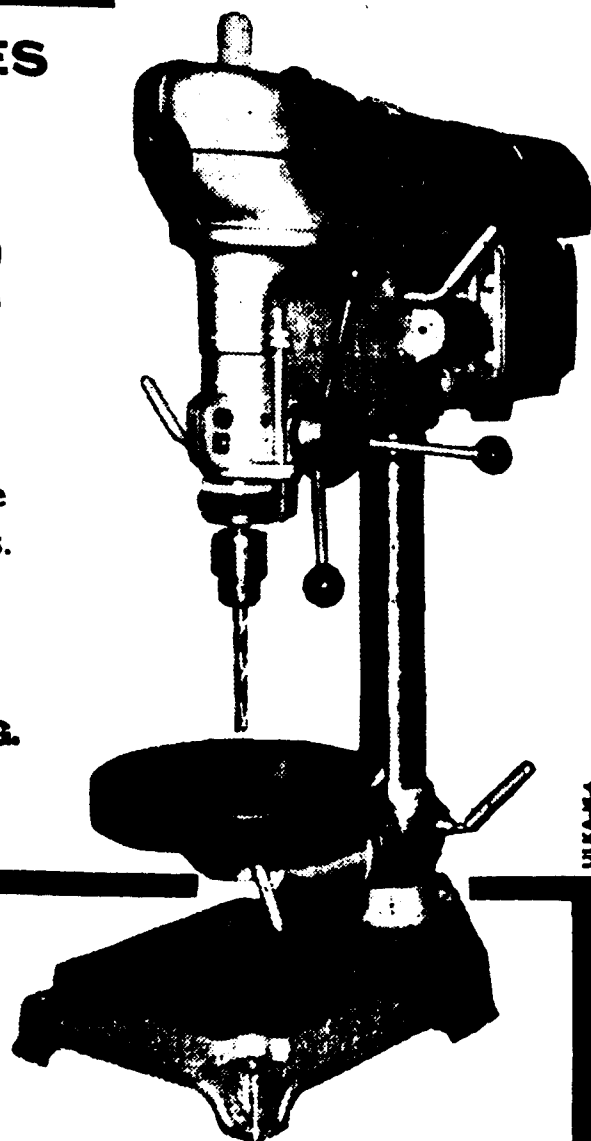
DRILLING MACHINES

SUPER 8 DRILLMASTER

Built to meet the most
exacting requirements of the
Engineering and Allied trades.

**DRILLING • REAMING
TAPPING • LAPPING
BORING • TREPPANNING.**

Kerry Drilling Machines
are now manufactured
in India by
Kerry Jost Tools Limited



Josts

Write to us for further particulars

JOST'S ENGINEERING COMPANY LIMITED
Great Social Building, 60, Sir Phirozeshah Mehta Road, Post Box No. 243, Bombay 1. (Tel. 262697/8)
19, British Indian Street, Calcutta. (Tel. 232257) • 7/2, Bishop Waller Avenue, Madras 4. (Tel. 72272)

THE MADRAS CLOTHING COMPANY

IS GRATEFUL TO THE GOVERNMENT OF MADRAS

For the excellent premises and facilities
given to the company in the new Industrial
Estate of Ambattur, which will be
formally inaugurated today by
Sri K. Kamaraj.

The Madras Clothing Company is proud to
help Ambattur become one of the most
thriving Industrial Areas in India.

The famous *Liberty* and *★Star*
men's wear are now also manufactured
from Ambattur by The Madras Clothing
Company.

**THE MADRAS CLOTHING COMPANY
AMBATTUR.**

JULY 1965

*HEARTY WELCOME to the President of A. I. C. C.
on the eve of the inauguration of Ambattur Industrial Estate*

KEMCOS CHEMICAL INDUSTRIES

(Plot 79-81)

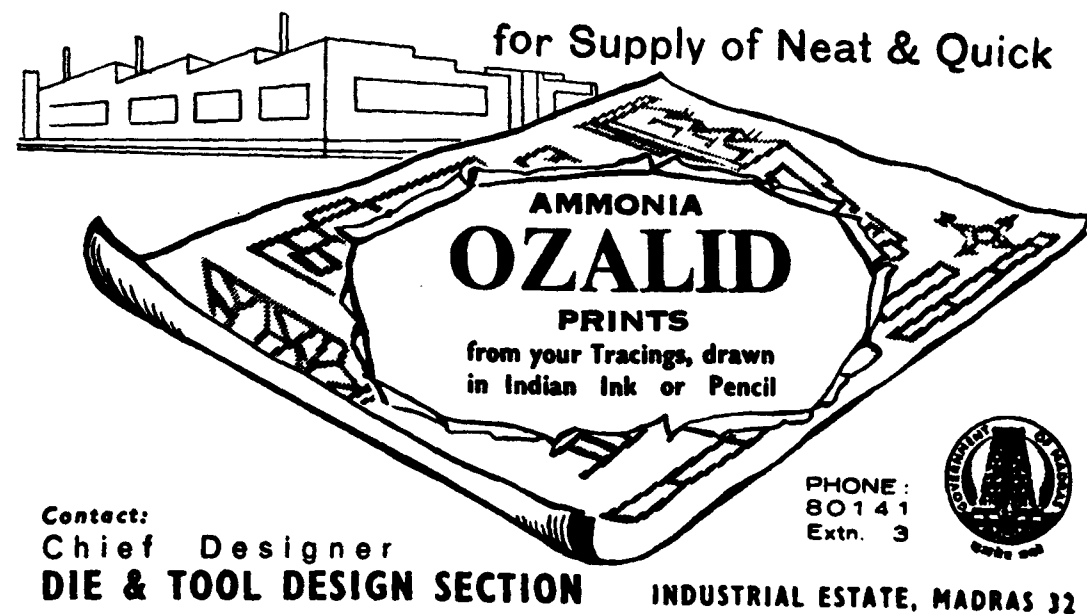
Industrial Estate, AMBATTUR

Manufacturers of
**ACIDS AND CHEMICALS, ALL KINDS OF PHOSPHATES, INDUSTRIAL AND B. P.
EXPORT PROCESSORS OF MARINE AND VEGETABLE PRODUCTS AND MINERALS**

Office: 163, NYNIAPPA NAICK ST.,
MADRAS-3.

Phones: 32126 & 32637
Grams: EXIMPLEAD.

for Supply of Neat & Quick



**AMMONIA
OZALID
PRINTS**
from your Tracings, drawn
in Indian Ink or Pencil

Contact:
Chief Designer
DIE & TOOL DESIGN SECTION

PHONE:
80141
Extn. 3

INDUSTRIAL ESTATE, MADRAS 32

SERVICE UNITS OF THE GOVT. OF MADRAS

To Serve the Industry

MODEL CARPENTRY SMITHY WORKSHOPS

Carpentry & Blacksmithy jobs of all kinds. Standard articles of Wooden Furniture also manufactured.

For machining precision parts and manufacture of surgical instruments. Clamps and Gauges of different sizes.

COMMON FINISHING SHOP

TOOL ROOM SHOP

Jigs and Fixtures

General items of light engineering and tin containers

PRESSED METAL PRODUCTS

WOOD SEASONING PLANT

Wood Seasoning. Special Treatment with 'Ascu' and Planing etc.

Crushing to I.S.I. Standard of Quartz, Lime Stone, Dolomite, Felspar etc. required for glass, ceramic and other mineral based industries

QUARTZ CRUSHING PLANT

COMMON TOOL ROOM

Tools & Dies also Drills & Thread cutting machines

Special Machines like Cylindrical grinder, Slotting Machine, Surface Grinders, Do-all Machine, Milling Machines, Plano-milling Machines, Gear Shaper, Shaping Machine, Lathes and Tool and Cutter Grinder for hire at nominal rates.

COMMON LEASE SHOP

TOOL ROOM SHOP

Tools and Dies

Hospital Furniture like Cots, Bedside Lockers, Diet and Medicine Trolleys etc.

GENERAL PURPOSE ENGINEERING WORKS SHOPS

PRESSED METAL PRODUCTS

Tool & Die-making, Sheet Metal Shop, Welding, Milling, Forging, Electroplating including power presses

Light and Medium Forgings in Ferrous and non-ferrous Metals, Heat Treatment of alloy steels, Annealing of ferrous and non-ferrous Metals.

FORGE AND HEAT TREATMENT SHOP



Contact the Superintendents of the
respective Units
Department of Industries and Commerce, Madras

ICM 26

in all walks of life



the choice is for



GOVT. FOOTWEAR PRODUCTION-CUM-SERVICE CENTRE
PERAMBUR, MADRAS-12

(A Unit of the Department of Industries & Commerce, Govt. of Madras)

NOW ON SALE

REVISED AND ENLARGED EDITION OF THE DIRECTORY OF
THE SMALL SCALE INDUSTRIES
IN MADRAS STATE

Published by

The Directorate of Industries and Commerce,
Madras

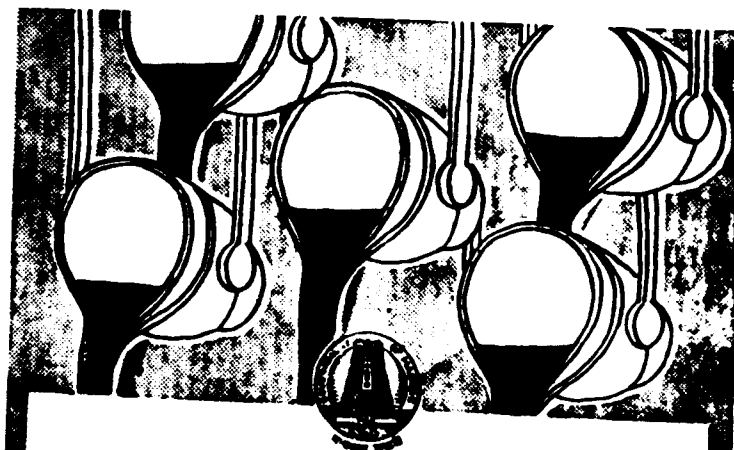
Price per copy Rs. 10 -

By Post Rs. 16/-
(including packing, forwarding and postage)

NO V. P. P. System

Please Contact :

The Manager-cum-Editor,
Technical Information Section,
Industrial Estate, Guindy, Madras-32.



AVAIL OF
FOUNDRY SERVICES
at the
GOVT. MODEL FOUNDRY
Under Expert Supervision

Specialists in
GREY IRON CASTINGS
Equipped with
MODERN MACHINERY

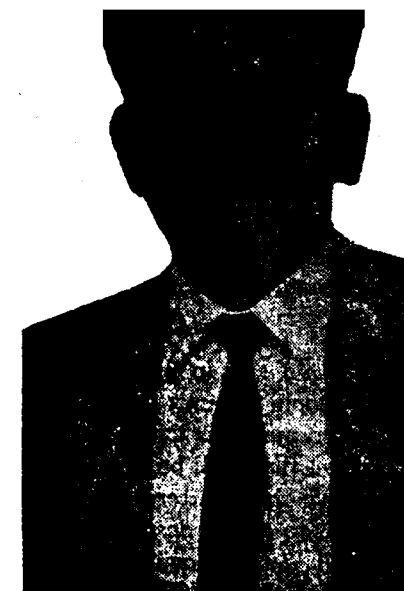
Contact
The Assistant Engineer
MODEL FOUNDRY
Industrial Estate, Guindy, Madras-32.

JULY 1965

xxxi

INDUSTRIAL AREAS

A New Development in our Industrial Strategy



Sri V. KRISHNASWAMY, M. A., M. Sc.,
Deputy Secretary (Major Industries) to
and Managing Director, Madras State Industrial
Development Corporation

United Kingdom was, perhaps, the first country to use the Programme of the Industrial Estates as a tool for dispersing industries from congested areas and for correcting regional unemployment. From 1934, a lot of work has been done in United Kingdom and in a number of other countries in this regard. In the developed countries, the Industrial Estates Programme has generally been used with the objective of dispersing industries and removing pockets of unemployment. In the developing countries, the programme has been used generally as an instrument for attracting new entrepreneurs and for offering incentives for the formation of new capital and for enabling small businessmen with low capital to enter the field of manufacturing. To some extent, this programme has also been used in the developing countries for proper town and country planning and for influencing the location of new industries.

The Industrial Estates Programme has both social and economic implications. The social content of the programme has three important aspects. It helps small entrepreneurs with low capital to enter the field of production thereby assisting the socialistic objective of a better dispersal or distribution of productive capital and a widespread ownership of the means of production. Secondly, it attracts new capital and enterprises and generates employment and has therefore been generally regarded as an extremely useful tool in wiping out pockets of unemployment. Thirdly, it leads to better town and country planning resulting in greater comfort and civic amenities and a healthy and cleaner life for the society as a whole.

ECONOMIC ASPECT

Equally, if not more important, is the economic content of the programme. It influences the location of those industries which are not material resource-oriented and thereby helps to correct regional imbalances in industrial development. Secondly, it results in an overall reduction in the cost per unit of the infra-structure facilities required for industrial undertakings. In fact, one can go to the extent of claiming that in respect of infra-structure facilities like land, water, power, building costs, communication facilities, postal facilities, banking facilities etc., a surprising economy of scale is achieved without any increase in the unit size of the participating industries. Thirdly, common planning and

JULY 1965

21

standardization eliminate draw-backs to industrial development arising from the time-element. A large number of units are enabled to reach the stage of production from the stage of conception, in a duration of time which would almost be impossible if the units have to create their facilities individually.

SMALL INDUSTRIES

In India, as in the case of a number of other developing countries, the Industrial Estates Programme has taken the form of small estates meant for small business. Most of the estates follow the pattern of constructing factory sheds to a type design and renting them out to small entrepreneurs. The programme has been implemented in India for over 8 years and considering the context and the objectives with which it has been introduced, one can say they have been fairly successful. Contrary to the initial expectation, the type designs have been found to be suitable for a surprisingly wide range of industries, though mainly in the engineering sector. By eliminating delays and by reducing the cost on infrastructure facilities, these estates have attracted new entrepreneurs and fresh capital and have developed considerable employment potential. In many instances, these estates have acted as the nuclei for the industrial development of the region in which they are situate.

PROBLEMS ENCOUNTERED

However, the industrial estates programme, as it is being implemented in our country as a whole and in our State in particular has its own limitations. The type designs for the factory sheds, though in practice found to be suitable for a surprisingly wide range of engineering industries have not been found suitable for chemical industries, agro industries and a few other important varieties of industries, with the development of which we are vitally concerned. Many of these industries are such that it is not easy to prepare common type designs. Each line of production in the field

of Chemical Industries or in agro industries requires special types of construction and special types of facilities. Therefore, these industries do not lend themselves to be developed through the programme of the Industrial Estates, as it is now being implemented. Secondly, even in respect of the engineering industries for which the type designs have been found to be suitable, space utilization with reference to the growth of industries has not been quite happy. The general experience has been that in the first few years, the industry finds that it has on its hands surplus built-up area, for which it has no particular use, but for which it has nevertheless to pay rent, thereby unnecessarily increasing the overheads at a time at which it can ill-afford to do so. After the first few years, when the industry grows in size and in production, it suddenly finds that the available space is inadequate and that it has no place for further expansion. Not infrequently, the programme of expansion of a number of industries has been delayed and hampered on account of the impossibility of increasing the covered space in the Estate and the reluctance of the entrepreneurs to move out to new premises. It is a well-known axiom that small industries have to grow in order to survive. They have to introduce modern techniques, specialise in processes, take to mass production and continuously diversify and expand their activities. This process of economic survival is considerably hampered if not prevented in the Industrial Estate. The small industries in the Estates soon reach a point of stagnation beyond which they find it difficult to grow. Thirdly, the absence of title over land and the factory reduces considerably their ability to raise resources through borrowing. Not infrequently entrepreneurs have found that borrowing at attractive rates of interest for capital investment on land and building is much more economical than continuously paying the

so called "economic rent" which includes the cost of facilities and services not always provided at peak efficiency. From the town planning point of view, creation of such centres of intense industrial activity at points which have no residential facilities creates problems of transport.

Another important criticism against the small estates is the setting up of small industries in isolation. The implications of such a step have been very elaborately analysed in a paper by Mr. Alessandro Molinary† read during the Seminar on Industrial Estates held in Madras by the ECAFE. Small Industries co-exist with large and medium industries and they have to stand the competition and justify themselves from the economic point of view without calling for subsidies which increase the overall social cost. Unfortunately, in India, the development of small industry is considered more as a social than as an economic phenomenon. From the economic point of view, a small industry which does not achieve the economy of scale and which cannot subsist without getting direct or indirect subsidies and which cannot face competition in a free market cannot be encouraged even if it can provide a lot of employment opportunities. The benefits conferred by an industry of this nature are illusory in character since they cannot "exist to a large extent except by social "dumping" that is, by paying very low wages thus perpetuating wretched living conditions."* It has been the experience all over the world

† 'Some Controversial Questions Concerning Industrial Estates' by Mr. Alessandro Molinary. Member of the Board of Directors, Association for the Development of Industry in Southern Italy (Associazione per lo sviluppo dell' industriale Mezzogiorno (SVIMEZ))

* Cf. Tokutaro Yamanaka, "Japanese Small Industries during the Industrial Revolution", in The Annals of the Hitotsubashi Academy, Vol. 11, No. 1, Tokyo, October 1951; "The nature of Small Industries" in The Annals of the Hitotsubashi Academy, Vol. IV, No. 1, October 1953; "Illogicality" in Japanese Small Business" op. cit.

that with the advent of mass production, small industries cannot survive except by specialization; nor can the small industries survive by producing end-products which could be mass produced by large and medium enterprises exploiting economies of scale. In many of the developed countries, small business survives and prospers by playing a complementary and not a competitive role in relation to large and medium industries. In other words, small industries provide the bought-out items required by large industries thereby enabling the latter to pay greater attention to the design and manufacture of the ultimate product. It also results in expert and special attention being paid by the small entrepreneur for the manufacture of each component. This type of development of small industries along with large and medium industries will not be possible if small industries are relegated to small estates and developed in isolation.

ANSWER TO THE PROBLEMS

We have learnt from the experience of other developed countries like U. K., Italy and Japan that setting up of industrial areas is the answer to these problems. Previously, we were concerned with creating small industries; now we have reached a stage of fostering the growth of small industries on healthy lines. Madras Government have therefore embarked on the second stage of development in the Industrial Estates, namely, that of setting up or constituting industrial areas. By setting up these industrial areas, we seek to remedy the shortcomings of the previous programme elaborated above.

The problem of finding a suitable location for the given industrial project and of securing the land for constructing the factory and creating the service facilities is the most important problem which faces the entrepreneurs and which mainly create the time lag between the stage of the conception of the

project and the stage of production. Securing large extents of land for large and medium industries by private negotiations is beset with a number of difficulties. Firstly one has to contact a large number of owners of land and many a time one is not able to get complete information regarding the ownership of the land. Secondly, by private purchase one is not able to secure clear title over a period of 20 years which is usually insisted upon by the financing institutions which accept lands as security. Thirdly, acquisition of land under the Land Acquisition Act for the private companies has become increasingly difficult and time-consuming and cumbersome. The recent amendments to the Land Acquisition Act and the introduction of the Land Acquisition (Companies) Rules, 1961, have made the procedure much more complicated and time-consuming. Above all, one cannot be sure about the suitability of the land till one actually purchases it since the owners of the land will not allow entrepreneurs to undertake investigations relating to the contour survey, soil testing, testing the bearing capacity, etc., without the assurance that the land will be purchased. Not infrequently, this results in the purchase of lands which are subsequently found unsuitable from the points of view of soil conditions and bearing capacity and this leads to infructuous expenditure which a new company can ill afford. Setting up of industrial areas and provision of developed industrial sites removes these difficulties to a large extent. The entrepreneur is provided with complete data relating to the land and he can move into the land as soon as he makes payment. It thus removes the risk element in the selection of land and it reduces considerably the time gap between the stage of conception and the stage of erection of the factory buildings.

INFRA-STRUCTURE

A substantial reduction in the expenditure on infra-structure facilities is perhaps the most

remarkable feature of the industrial areas. The cost per unit of facilities like roads, street lighting, water supply, power supply, drainage, sewage, etc. is very low when compared to the cost to be incurred by the units if they have to set up these facilities individually for themselves. Perhaps in a facility like railway siding the comparison is striking. In a place which is situated within a distance of 5 miles from a railway station, an individual entrepreneur will have to spend something like Rs. 30 lakhs to Rs. 35 lakhs for the purpose of getting a railway siding. If he occupies an industrial area which is situated within a distance of 5 miles from the railway station, the cost of laying the railway siding, viz., Rs. 35 lakhs will be shared by him along with at least half-a-dozen other entrepreneurs thereby resulting in an individual expenditure not exceeding Rs. 5 lakhs. Thirdly, in an industrial area where large, medium and small industries are allowed to be located side by side the large and medium industries can farm out their unit processes among the swarm of small industries. On account of the proximity of the location of the small industries, a closer control over the quality and better liaison are possible to the mutual advantage of both. Again in the industrial areas, developed industrial sites are given and the entrepreneur puts up a building of his own according to his requirements. This helps him to design a building suitable for his industry and to phase the construction according to his space requirements at any given point of time thereby facilitating the smooth growth and expansion of the industry.

SELF-CONTAINED ESTATE

Well-planned industrial areas provide accommodation for various types of industries and set apart areas for residence, for commercial activities and for recreation. It is generally a fairly self-contained industrial town-ship in itself with the result it soon

develops as a satellite township to the existing city. The provision of adequate residential facility in the industrial areas removes to a considerable extent the impact which the intense industrial activity will normally have on the transport system between the industrial area and the main city. These industrial areas also enable the shifting of existing industries from congested portions of the city to the well-laid-out plots thereby creating better living conditions within the city.

THE AMBATTUR INDUSTRIAL AREA

The Ambattur industrial area is the first one set up by the Government in Madras State. I was fortunate in having been associated with this project from the time of its conception and in having been responsible for its detailed planning and execution during most of the initial stages. An extent of about 1,200 acres of land was selected as suitable for this purpose based on a number of criteria like proximity to the existing city, proximity to the consuming market and sources of raw materials and intermediates, availability of rail and road transport facility and a number of other considerations. The contour of the tract, suitability of the soil conditions, soil bearing capacity, possibilities of having a railway siding, consonance with the Metropolitan planning of the greater Madras city and the naturally preferred direction of growth of the existing industries were some of the factors which determined the selection of the site. Availability of a large volume of ground water suitable for industrial and domestic purposes was another factor which recommended the selection of the site. Besides selecting 1,200 acres for setting up the industrial area mainly for factory purposes, the State Housing Board was requested to initiate action for acquiring over 1,000 acres adjoining this site for housing purposes. An Industrial Estate for Small Scale Industries consisting of 70 newly designed factory sheds ranging in

sizes from 8,000 sq. ft. to 16,000 sq. ft. was located in the South-eastern quarter of the Estate. In the first phase, an extent of 630 acres was taken up for development and in the layout, provision was made for over a hundred developed plots ranging in size from $\frac{1}{4}$ acre to 12 acres. All the other common facilities which are normally associated with the industrial areas were also provided for. Most of the plots have already been sold out and within a short time, 11 major factories have been constructed and commissioned. Eleven more factories are under construction. The total expenditure for the first phase of the industrial area and the industrial estate is expected to be of the order of Rs. 200 lakhs to Rs. 225 lakhs. This industrial area and the industrial estate together will bring into existence about 170 factories of various sizes with investments ranging from Rs. 3 lakhs to Rs. 4 crores, per unit. The total investment in the area will be of the order of Rs. 23 crores to Rs. 25 crores, and this investment is expected to generate employment for 10,000 to 12,000 people.

In the 70 factories constructed for small scale industries, a variety of industries has been set up. More than 50 units have commenced production within the short period of a year. The size of the industries in the Ambattur Estate is generally much larger than the size of the unit in the Guindy Estate mainly on account of the larger space availability in the units. The range of production in the Ambattur Industrial Estate covers machine tools, road making and construction equipments, A. C. S. R. Conductors, weld mesh and a variety of other electrical and mechanical industries. Extrusions, ferrous and non-ferrous castings, die and tool making, facilities for precision operations, sophisticated electronic equipments are among the many other operations undertaken by some of the units in the Estate. A number of units are

also engaged in the manufacture of various components required for the automobile industry.

INDUSTRIES IN DEVELOPED PLOTS

In the developed plots, Messrs. India Forge and Drop Stampings have set up a factory for the manufacture of steel forgings and drop stampings with an annual capacity of 7200 tons at an investment of Rs. 77 lakhs. This is considered to be one of the most important units in the Madras State. Messrs. Southern Switch Gears have set up a factory for manufacturing L. T. & H. T. Switch gears, bus-bar chambers, motor starters and switches and allied electrical equipments. Messrs. Kerry Jost Tools have set up a machine tool factory for the manufacture of drilling machines. Among the important electrical industries coming up in the Industrial Area are the units for the manufacture of welding electrodes, electricity meters, etc. The first major unit in the State of Madras for the manufacture of cables has been set up by Messrs. Omega Insulated Cable Company in this Estate. Among the other important electrical industries coming up in the estate are those producing oil circuit breakers, switch gear components, lead storage batteries. Among the food industries, mention has to be made of the units which will manufacture biscuits, peanut products, cattle feed, malt extracts and allied products.

The important among the mechanical engineering industries are those relating to the manufacture of taps, dies and chasers, malleable castings, steel castings, bright bars and shaftings, tractor parts, spindle rings, water meters, construction and road making equipments. One of the important processing units coming up in the Industrial area is for the processing of P. V. C. into rigid pipes and tubes.

A separate area in the south-eastern corner of the Estate is set apart for chemical industries and a number of small size chemical

industries are coming up in this area. Similarly, a separate area has been allotted for fruit based and fruit preservation industries and here the Government itself has evolved a suitable type design in consultation with the experts in this field and the work relating to the construction of these units is expected to be taken on hand shortly.

THE SECOND PHASE

The investigation work relating to the second phase of the industrial area has been completed and a layout has very recently been prepared. The development work of laying the roads, drains, street lighting etc., will be taken on hand very soon and it is likely to be completed in the course of 12 to 18 months. In this new area, an industrial training institute for training skilled artisans in various trades is being set up. In addition to this, a number of major plots measuring 10 to 20 acres is being laid for heavy industries requiring railway siding.

The popularity of the industrial area scheme in Ambattur can be gauged from the quickness with which all the buildings and the plots have been allotted and occupied and the continuous stream of applications which are being received for the allotment of further plots. A good number of major industrial units licensed in the recent years have chosen Ambattur Estate as the proper location, and a good number of people have made applications for the grant of industrial licences indicating Ambattur Estate as their preferred location. More than 25 per cent of the small and medium sized units which moved into the industrial area have actually shifted from the congested areas of the city to the Estate.

INDUSTRIAL DEVELOPMENT CORPORATION

Encouraged by the response to this scheme, the Government have decided to set up a number of industrial areas in the various parts of the State and sites have already been selected in places like Guindy, Arakonam,

Ranipet, Tiruchi, Tirunelveli, Cuddalore, etc. Lands in many of these places are under acquisition. During the Fourth Five Year Plan, we hope to set up at least 12 industrial areas covering an area of about 12,000 acres at a cost not exceeding Rs. 7 crores. Since implementation of a scheme of this nature requires careful technical planning and continuous attention during implementation and administration, it calls for the whole time attention of a competent organization. For this purpose, the Government have created "Madras State Industrial Development Corporation" which will have as one of its main activities, the creation and maintenance of well-planned industrial areas in various parts of the State.

From the point of view of the quantum and diversity of industrial production, Madras State occupies a very important position in India. When compared to some of the States which are considered to be slightly more

industrially advanced than ours, the dispersal of industries achieved in this State is truly remarkable. To accelerate the development of industries and to distribute them evenly for promoting a balanced regional development within the State, the Government has been making use of a number of schemes and the development of industrial areas is the latest tool that has come in handy for this purpose. During the Fourth Plan Period, we propose to step up the contribution of industries to the State Income from the present level of about 16 per cent to about 30 per cent by 1970-71. This calls for a high rate of growth involving massive investments of the order of Rs. 600 crores during the next 5 years. One may hope that the experience gained in setting up industrial areas and the advance action taken to set up a number of industrial areas during the Fourth Plan Period will facilitate the implementation of the massive programme of investment within a short period of 5 years.

OMEGA CABLES

OMEGA CABLES

PVC and RUBBER Insulated

bring
POWER and LIGHT
to
FACTORY and HOME



Your guarantee for
quality



Special features:

Electro-annealing
Continuous vulcanizing
Automatic extrusion
control
Visual eccentricity
control
Resistance to fire



OMEGA INSULATED CABLE CO.,
(INDIA) LTD. MADRAS
AMBATTUR, MADRAS-23

ELEGANT

INTRODUCING THE INDUSTRIAL ESTATE



Sri L. M. MENEZES, I. A. S.,
Joint Director of Industries and Comm
(Industrial Estates), Madras

The concept of the Industrial Estate is almost a century old. It originated in Britain and over the course of years, the concept has grown in dimension and in scope.

THE ACT IN ENGLAND

THE earlier estates were called trading estates and were not Government-financed or Government-controlled. The idea of Government financed Trading Estates grew from the example and experience of the Trafford Park Estates Limited and the Slough Trading Estate Limited. The first one was meant to bring business to the Manchester Ship Canal and was established as far back as 1896. The second was established in 1920 and was primarily meant to dispose of the depot of surplus war stores. The Trafford Park Estates began to build small factories for rent to manufacturers, but it was at Slough that the idea of building factories on a large and organised scale took root. These Estates had a number of subsidiary functions, besides the renting out of factory buildings to industry. But in due course this became the main business of the Trading Estates.

The success of these two Estates attracted the attention of many who pointed out that the Government should finance similar developments in Special Areas viz. areas of severe unemployment. The final policy with regard to these Special Areas emerged in 1934 with the Special Areas (Development and Improvement) Act. The Act was meant to empower Commissioners to acquire land and transfer it to bodies which proposed to utilise it in the economic development or social improvement of Special Areas. (The immediate result of this was the establishment of the famous Team Valley Estate). Further powers to grant inducements to industry came with the Amendment Act of 1937. This legislation was improved upon from time to time until the Local Employment Act of 1960. This Act was meant "to make provision to promote employment in localities in England, Scotland and

JULY 1965

29

Wales where high and persistent unemployment exists or is threatened and to make consequential provision as respects the Industrial Estates Companies: to amend sub-section 4 of section 14 of the Town and Country Planning Act, 1947 and sub-section 4 of section 12 of the Town and Country Planning (Scotland) Act, 1947 (Industrial Development Certificates), and for purposes connected with matters aforesaid". Under this legislation, the Board of Trade has powers to,

- (1) acquire land, if necessary compulsorily;
- (2) to erect buildings on such lands and to let or to sell them to undertakings carrying on any trade or business or any other activity providing employment;
- (3) to lease or sell land to undertakings building at their cost, and
- (4) to erect buildings on land owned by similar undertakings on such terms as may be agreed upon.

In practice, arrangements may be made for the repayment of the cost by instalments.

BOARD OF TRADE

The work of establishing and running Industrial Estates in Britain is carried on by the Board of Trade through three Corporations for England, Scotland and Wales. These are known as the Industrial Estates Corporations. It will therefore be seen that the present concept of the Industrial Estate in Britain has grown over a period of 50 years, and the powers of the Board of Trade have been enhanced from time to time. To begin with, the Board of Trade had powers only to acquire and transfer land to bodies proposing to utilise it for economic or social development of Special Areas. Later on, the Board of Trade could offer substantial inducement to industry to establish factories in Special Areas. Under the later Acts, the Board of Trade could withhold Buildings Licences and Industrial Development

Certificates, if, in its opinion, the establishment of a new Factory in a district would cause serious disadvantage due to further, industrial development. Under the Local Employment Acts, the powers as already described above are extremely wide and the scope of the Industrial Estate is much larger than the original Trading Estate.

IN INDIA

This brief background of the Industrial Estates Scheme in Britain is necessary to understand the growth of the Industrial Estates Scheme in India, and particularly in Madras State. Although we have no special legislation on the subject in India, under the various Acts in force, the Government have been exercising almost all the powers which the Board of Trade does presently. The objectives of the Industrial Estates Schemes in England and in India are practically identical except for one important factor, viz. the absence of large-scale skilled unemployment in our country. The other objectives being fulfilled by the Industrial Estates Schemes here can be roughly described as follows:

- (1) the dispersal of industries to rural areas.
- (2) the offering of suitable incentives to encourage the growth of existing industries and the establishment of new industries.
- (3) the creation of conditions for the planned and organised growth of industries, thus obviating Industrial slums.

The Government has powers to acquire land for these purposes, to erect buildings and to let or sell them to undertakings and to lease or sell land to undertakings who will build factories at their own cost. These functions are being presently fulfilled by the Industrial Estates Scheme in Madras.

The idea that the State should play a direct part in economic activity was less acceptable 30 years ago than it is today. The extent to which the Government should participate in industry is a matter of opinion. There are people who feel that Government should not invest in industrial property except to remove or to reduce temporary hardship, and that once that aim has been accomplished, they should withdraw. There are those who believe that all industry should be nationalised. At the other extreme we have a large section of the Western world believing that industry should be left completely to private enterprise. In the United States, for example, Industrial Estates (called Industrial Parks) are very often owned by individuals, known as Real Estate Speculators. To what extent the Government should participate in industry is, of course, simply a matter of opinion or ideology, but there is definitely an increasing feeling that the less-developed countries can catch up with the rest of the world only by means of strong and speedy measures like the Industrial Estate Scheme. Dr. Bredo, an American economist, in his book on Industrial Estates says, "The present need for many countries to hasten industrialisation and rapidly improve levels of living is creating problems that challenge the maximum creative and administrative poten-

tials of their Government. The relatively passive measures that nurtured the early growth of the advanced Industrial nations no longer are adequate and must be supplemented or replaced by more positive institutional approaches".

Dr. Bredo claims that the Industrial Estate is one of the "Institutional techniques that have been developed and applied successfully to the basic problems of initiating and sustaining the development of small and medium-scale industry". It is this conviction that has promoted our Government to launch on the Industrial Estates Programme in a big way.

AMENITIES AND FACILITIES

The Industrial Estate has been variously defined, but in brief it is "an Industrial zone planned by and under the control of a Development organisation for purpose of creating an Industrial community engaged in the production and distribution of a variety of manufactures by building factories for lease or for sale and by making available industrial sites on which firms may build at their own cost and wherein the development organisation has provided for roads, street lighting, sewage, drainage and the usual public services of gas, electricity and water." (S. A. Sadler Forster,



Chairman, Industrial Estates Management Corporation for England). In Madras State, the term Industrial Estate, has come to mean a group of Factory units put up by Government and rented out to Small-Scale Industrialists on subsidised rent. This impression has to be corrected because the industrial Estate, as in the case of Ambattur, also embraces the concept of developing land and selling sites to industrialists to put up their own Factory buildings. The Industrial Estates in Madras would therefore range from a small group of 8 factories as at Theni (Madurai District) to a complex covering 1,200 acres consisting of Government owned Factory buildings as well as Developed Plots as at Ambattur. The number of facilities, common services and amenities provided for each Estate would naturally vary with reference to the size of the Estate as well as the need for these various facilities. At Theni, for example, the Government has provided roads, sewers, drainage, water, electricity and has put up six factory buildings which have been rented out to Small-scale industrialists. There is provision for further amenities as and when the Estate grows. At Ambattur, besides the above facilities, there are various other services like the Tool Room, the Common Lease Shop, the Structural Workshop, Canteens, Post Offices Telephone Exchange etc. and the work relating to labour tenements, staff housing, parks, play grounds, hotels etc. is to be taken up shortly.

GOVERNMENT ESTATES

During the Second Plan Period, the Government sanctioned the establishment of 10 Industrial Estates in Madras of which 9 were constructed and are functioning at the following places;

- | | |
|---------------------|---------------|
| (1) Guindy | (5) Katpadi |
| (2) Madurai | (6) Pettai |
| (3) Virudhunagar | (7) Erode |
| (4) Tiruchirappalli | (8) Thanjavur |
| (9) Marthandam | |

The Estate at Salem could not be taken up due to Land acquisition difficulties. In the Third Five Year Plan, the Government of Madras sanctioned the establishment of 13 Industrial Estates of which 12 have been taken up and are functioning at the following places:

- | | |
|-----------------|-------------------|
| (1) Dindigul | (7) Arkonam |
| (2) Pudukottai | (8) Nagercoil |
| (3) Karaikudi | (9) Sivagangai |
| (4) Theni | (10) Ambattur |
| (5) Krishnagiri | (11) Vridhachalam |
| (6) Koilpatti | (12) Madhavaram |

The Estate at Kumbakonam has not been taken up due to difficulty in acquiring a site. The site has just been notified and the work is likely to be taken up in a few months' time. It will be seen, therefore, that 21 Government Industrial Estates are functioning in Madras. There are 385 Factory units in these 21 Industrial Estates of which only 34 are presently vacant. The response to the recent advertisements issued by the Government of Madras has been so favourable that it is going to be extremely difficult for the Government to keep pace with the increasing demand for factory space in these Industrial Estates. A total number of 250 enquiries were received within a week's time from all important Industrial centres in India. The Government are therefore planning to push through the scheme in a large way during the Fourth Five Year Plan. The second phase in many of these Estates has to be taken up shortly and it is likely that a total of 80 units will be added to the existing 385 units.

CO-OPERATIVE ESTATES

Besides this Government are planning to set up at least 10 to 15 Industrial Estates in the Fourth Five Year Plan. Apart from these purely Government Estates, it is likely that at least 9 or 10 Co-operative and private Industrial Estates will be established. The Government recently negotiated a loan of Rs. 110 lakhs

with the life Insurance Corporation, a good part of which will be utilised to Finance Co-operative Industrial Estates.

The Co-operative Industrial Estate not only fulfils the objectives of the Industrial Estates Scheme as outlined above, but also the co-operative ideal. We have already started on this in a small way, and four Co-operative Industrial Estates at Vyasarpadi, Tuticorin, Sivakasi and Pollachi are under construction. The economics of the co-operative Industrial Estate are as follows:

Twenty per cent of the capital outlay is contributed by the members and 80 per cent is contributed by Government on a long term loan. The Estate is run by the Co-operative Society.

PRIVATE ESTATES

The third type of Estate which exists in Madras is the Private Industrial Estate which is an Estate sponsored by a private company. We have two such Industrial Estates, one sponsored by M/s. Royal Enfield, Tiruvottiyur and the other sponsored by a private party at Coimbatore. The first Estate is mainly an ancillary Industrial Estate catering to the needs of the private company concerned. This estate is functioning. The one at Coimbatore is under construction. Under this scheme also, Government contribute 80 per cent of the capital outlay on a long term loan.

TYPES OF ESTATES

The purely Government Industrial Estates in Madras can be roughly divided into three categories:

- (1) the Light Engineering Industrial Estate.
- (2) the Functional Industrial Estate and
- (3) the Ancillary Industrial Estate.

Almost all the 21 Industrial Estates established are Light Engineering Industrial Estates. In other words, the Government give priority to

Light Engineering Industries, but there are a few units which have been let out to pharmaceutical, chemical, clothing and fruit and food-based industries. We have one functional Industrial Estate at Madhavaram. This is strictly for leather goods and leather processing. We are planning to set up four more functional Industrial Estates for fruit/food, pharmaceutical, chemical and electrical goods industries. At the moment we do not have any ancillary Industrial Estates, but it is proposed to establish one at Tiruchi which will cater to the ancillaries needed by the High Pressure Boiler Plant.

To sum up, it will be seen that there are altogether 27 Industrial Estates in Madras State of which 22 are functioning, and 5 (Co-operative and Private Industrial Estates) are under construction. When these Estates are completed and when the second phase of the existing Estates are implemented; it is envisaged that there will be 585 Factory Units in Madras State employing approximately 17,000 workers with an approximate turnover of 10 crores. This does not include the proposals under the Fourth Five Year Plan.

VARIETY OF PRODUCTS

The existing units in the Industrial Estates in Madras manufacture a variety of items like spectacle frames, electrical domestic appliances, pencils, pens, tape recorders, projectors, footwear, coffee grinders, cooking ranges, machine tools, water-proof packing, weld mesh, telephone parts, gears, spare parts for automobiles, tin containers, water heaters, dynamos, typewriter parts, safety razor blades, polythene bags, hospital equipments, fluorescent tubes, radios and a variety of ancillaries for various big industries and a very large range of tools, dies, jigs and fixtures.

PRESENT TREND

The trend in Madras city at the moment is to find factory accommodation on the outskirts of the city. It is easily noticeable

that industry has started expanding on three or four sides viz. on the Mahabalipuram road, the Avadi road, the Bangalore road, the Tiruchi road and the Velacheri road. Depending upon the availability of sites and the availability of water and electricity, a number of small, medium and large industries have started moving out of the city due to the paucity of space in the erstwhile industrial belt of Ennore-Tiruvottiyur and due to rising rents. This trend is noticed very sharply in the Industrial Estates scheme. The Industrial Estate, Guindy, which was established in 1957 did not have immediate response for a short period of one year. Immediately after that, all the 128 factory units were rented out and the demand was so high that the Government decided to establish another Industrial Estate at Ambattur. The response at Ambattur has been beyond all expectations and the 70 factory units (which are comparatively large units with rents ranging from Rs. 750 to Rs. 1,300) have been rented out to industries. Of the 450 acres developed for Industrial Sites at Ambattur, almost the entire area has been sold to small, medium and large industries. The original layout made provision for 105 plots, of which 91 plots were meant for industrialists, the others being reserved for various common purposes. Of these 91 plots, 78 have already been allotted to industrialists, some of whom have constructed their factory buildings and started production and the others being at various stages of setting up their factories.

The trend now is to move out to places like Arkonam which is within striking distance of Madras and which has all the facilities needed by small and large industries. The Estate at Arkonam consists of only 6 units at present, but 8 more are to be set up shortly. Besides this, almost 2,000 acres have been notified in Arkonam for establishing a few projects in the public sector as well as providing plots to the private sector.

DEVELOPED PLOTS

Since the idea of Developed Plots is catching on, the Government have decided to establish Developed Plots Estates (which is an integral part of the Industrial Estates Scheme) at the following places:

- | | |
|-----------------|-----------------|
| (1) Guindy | (6) Arkonam |
| (2) Tiruchi | (7) Salem |
| (3) Ranipet | (8) Madurai |
| (4) Tirunelveli | (9) Erode and |
| (5) Mettur | (10) Cuddalore. |

In addition to the area already developed at Ambattur, a further extent of 430 acres has already been acquired on the northern side of the new Avadi road, between the road and the Railway line, for the provision of further Developed Plots in that area. In view of the Railway siding and the goods yard which are to be provided in this area, the plots are likely to be earmarked for fairly large industries and will range from 3 acres to 20 acres. The layout for this area has almost been finalised and the work is to be taken up shortly.

An extent of about 350 acres has also been acquired at Guindy adjacent to the existing Industrial Estate and it is proposed to provide as many as 160 Plots for industries. These Plots are likely to range from $\frac{1}{2}$ of an acre to 3 acres. The layout for this area has almost been finalised and the work is to be taken up shortly.

With regard to Tiruchi, an area of 446 acres has already been acquired and the layout for the area is being prepared. Similarly at Ranipet, an extent of 420 acres has already been acquired and a further extent of about 650 acres is to be acquired shortly. The layout will be prepared in the course of the next 3 months. Ranipet is specially advantageous to Madras city because of the short distance from the city and the availability of very good sites with all the necessary facilities, including railway siding.

Sites are also being selected at Tirunelveli, Mettur, Salem, Madurai, Erode and Cuddalore.

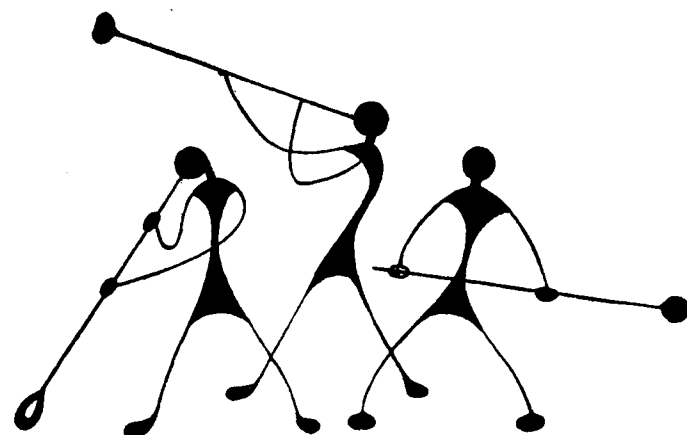
LONG-TERM POLICY

The Administrative set up for the establishment and the running of these Industrial Estates varies from region to region and country to country. Within India itself it varies greatly from one State to another. In Bombay, for example, there is the Maharashtra Industrial Development Corporation which is very similar to the Industrial Estates Corporations in Britain. The work of selecting, developing and allocating sites to industries is done entirely by the Corporation in Maharashtra. Similar corporations have been established in many States including Mysore, Andhra Pradesh, Punjab and so on. The inducements offered also differ from State to state and from country to country. In Maharashtra there are certain development areas where land is leased out on a 99 year lease on a nominal rent of Re. 1 per year. Recently the Mysore Government announced free allotment of land. In certain highly industrial areas, land is even sold in auction at fantastic prices. Following the example of Britain, a number of States are also thinking in terms of offering such concessions as tax exemption and so on in order to foster the growth of industry

in these under-developed areas and in order to wean away industry from congested metropolitan areas. With regard to the conventional Industrial Estate, there are a few Governments which have offered factory units on hire-purchase to the industrialists who have been occupying them for a long period. I understand this has been done in Punjab and Gujarat. In a few States, there are Industrial Estates run by non-Governmental agencies like Corporations, Municipalities and so on. In a few States the Governments prefer to concentrate on Co-operative Industrial Estates instead of purely Government run Estates. The Government of Madras has been applying its mind to these various matters and a sound long-term policy is being evolved for the Industrial Estates Programme.

Industrialists and Officials from all over India who have visited our Industrial Estates have been greatly impressed by the progress made here. They feel that there is much to be emulated by the other State Governments and have also expressed the opinion that Madras is forging ahead of almost all other States in the matter of Industrial Development through the agency of the Industrial Estate. This should be a matter of great satisfaction to all of us.

JULY 1965



Moulded and Blown Laboratory Glassware

Manufactured by

**GOVERNMENT SCIENTIFIC
GLASS APPARATUS FACTORY,
INDUSTRIAL ESTATE, MADRAS-32**



for use in Schools, Colleges, Research Institutions and Analytical Laboratories.

The Range of products include Laboratory glassware like Beakers, Flasks, Funnels, Bell Jars, Petri dishes, Dropping bottles, Desiccators, Fabricated apparatus like Condensers, Filter pumps, Potash bulbs, Volumetricware like Pipettes, Centrifuge tubes, Cylinders, Specific Gravity bottles, Automatic burettes, Voltameters etc., besides Glass equipment for Mercury gauges, Pressure gauges, McLeod gauges and condensation pumps, Clinical thermometers, Chemical thermometers etc.

All items manufactured in the factory conform to the I. S. I. or B. S. S. specifications.

The Unit will also calibrate and graduate glass equipment and manufacture complicated and difficult components, needed by Small Industrial Units.



Ask for the detailed price list from
**THE DEPUTY DIRECTOR (Sales),
DEPARTMENT OF INDUSTRIES AND COMMERCE,
MADRAS-5.**

Brighten Your Homes with Lovely Handicrafts of Madras State

The Madras Handicrafts Products Include

Bell Metal Wares, Tanjore Art Plate,
Art Metal Products, Wood Carving,
Druggets, Decorative
Pottery, Kalamkari Prints, Carpets, Pith
Articles, Palmleaf Articles, Cane Articles,
Fancy Leather Goods, Grass Mats, Toys etc.



NOW ON DISPLAY AT THE
COTTAGE INDUSTRIES SALES EMPORIUM
MOUNT ROAD, MADRAS-2

See them for yourself
and make your choice

Issued by

The Director of Industries & Commerce
Chepauk, Madras-5



DEPARTMENT OF INDUSTRIES AND COMMERCE,
MADRAS

**FORGE AND HEAT TREATMENT SHOP
COIMBATORE**

FORGINGS OUT OF FERROUS AND NON-
FERROUS ALLOYS, LIGHT AND MEDIUM
FORGINGS

HEAT TREATMENT OF ALLOY STEELS,
ANNEALING OF FERROUS AND NON-
FERROUS METALS, CARBONISING &
CASE HARDENING



For Requirements Contact :
SUPERINTENDENT
FORGE AND HEAT TREATMENT SHOP
PODANUR (POST)
COIMBATORE DISTRICT

With

The

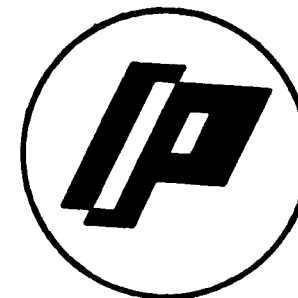
Best

Compliments

Of

**INDIA
PISTONS
LIMITED**

Sembiam, Madras-11.



GORDON WOODROFFE ENGINEERS LIMITED

Welcomes your enquiries for:

JIG & TOOL MAKING
PRECISION REPETITION TURNING
PRECISION REPETITION CYLINDRICAL
GRINDING

We are also pleased to announce that we shall shortly commence manufacture of Collets and Feed Fingers in collaboration with a well-known British Machine Tool Accessories manufacturer.

FACTORY:
A-9, AMBATTUR
INDUSTRIAL ESTATE

REGD. OFFICE:
1/21, NORTH BEACH ROAD,
MADRAS-1.

LIGHT... FAST... HANDY

Stabilise Your Production Costs
with **Wolf** Portable Electric Tools
Drills • Grinders • Sanders • Blowers



INDUSTRY'S FIRST CHOICE

Sole Distributors: **RALLIS INDIA LIMITED**
Bombay, Madras, Calcutta, Delhi.

(Accredited Dealers all over India)

GOVT. WOOL PROCESSING CENTRE Vinnamangalam.



For further
Particulars apply to:
GENERAL MANAGER,
GOVT. WOOL PROCESSING
CENTRE,
Vinnamangalam, Ambur Post,
North Arcot District,
Madras State.

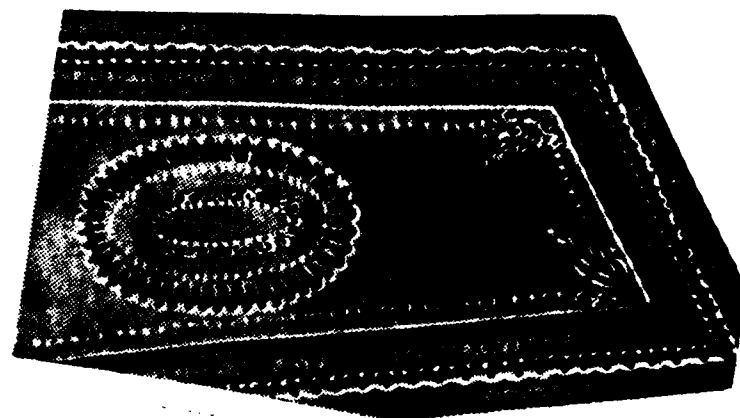
for

Scientifically Processed Wool
and Goat Hairs of all Grades
and Shades required for
Drugget, Carpet, Blanket
and Felt.

*Special Service Facilities
at Economical Rates*

CHEMICAL TREATMENTS
ACID WASHING
SCOURING
BLEACHING
MOTH PROOFING
ANTI-MILDEW TREATMENT
DYEING IN BRILLIANT
SHADES

Machine Processing
Opening
Teasing
Blending
Carding.



For

Design & Manufacture of:
FRACTIONAL HORSE POWER
& SMALL MOTORS FOR INDUSTRIAL
& DOMESTIC APPLIANCES,
MACHINE TOOLS, PUMPSETS
& COOLANT PUMPS.

&

SERVICING & REPAIRS
OF
SMALL MOTORS
AT
MODERATE CHARGES

Please contact:

GOVT. FRACTIONAL HORSE POWER MOTORS UNIT
INDUSTRIAL ESTATE,
GUINDY, MADRAS-32.

(A UNIT OF THE DEPARTMENT OF INDUSTRIES AND COMMERCE)

for

TESTING AND ANALYSIS

of

MINERALS, ORES, OTHER INDUSTRIAL RAW
MATERIALS AND FINISHED PRODUCTS

The Laboratory also undertakes Destructive and non-destructive testing of metals and metallic alloys for tests such as

- ① Tensile, Compression, Hardness Ultra-sonic flaw detection and magnetic crack detection.
- ② Physical testing of Rubber and Plastics and
- ③ Foundry Sand Testing Work on beneficiation of low grade minerals and ores is also undertaken and advice on chemical and allied problems of industry is offered.

Sampling of Ores and Minerals at Pit Heads, Ports, Loading Stations etc., according to international methods of sampling and issue of appropriate certificate

Please contact :

**THE JOINT DIRECTOR
OF INDUSTRIES &
COMMERCE (CET)**

CHEMICAL TESTING AND
ANALYTICAL LABORATORY,
INDUSTRIAL ESTATE,
GUINDY, MADRAS-32

A UNIT OF THE DEPARTMENT OF INDUSTRIES & COMMERCE
GOVERNMENT OF MADRAS

LAYOUT OF THE AREA AND DESIGN OF THE BUILDINGS

The layout for the Ambattur Industrial Area has been prepared in conformity with the principles of Town Planning. An 100 feet wide road has been planned to run across and connect the units area and the Developed Plots area and an outer ring road 120 feet wide has been planned which will connect the Great Northern Trunk Road, the Poonamallee High Road and the Great Southern Trunk Road. The Madras—Arkonam broad gauge line runs about 2 miles north of this site. A railway siding, if necessary, could be easily brought to this area from Korattur Railway Station about 2 miles away or from Ambattur Railway Station about 2½ miles away.



Sri P. SIVALINGAM, B. E., (Hons.)
M. S. (Irrgn.) (Calif)
Superintending Engineer (Construction)
Industries Department.

In designing the factory buildings, the norms laid down by the Committee on Plan Projects have been generally followed. The factories have been designed in accordance with the requirements of Factories Act also. With the experience gained in the working of the factory units in the Industrial Estates established during the Second Five Year Plan period, and in the early parts of the Third Plan period, four type designs viz., A, B, C and D with attractive elevations have been evolved and adopted for construction in this Estate. These factory units consist of a front office portion with R. C. C. terraced roof and a rear twin bay workshop portion of 40 feet span each with A. C. C. sheet roofing over steel trusses and purlins. The trusses are spaced at 12 feet intervals and are provided with north light

arrangements to afford sufficient lighting. In the north light arrangements provided, the glazing surface is kept inclined inwards by about 11° with a view to avoid direct sunlight into the workshop and to prevent glare. This aspect of avoiding direct sunlight is more desirable where the workshop is to be air-conditioned. A further improvement in the matter of affording ventilation has also been resorted to in this Project by providing ground level ventilators with R. C. C. louvers for the workshops. It is noteworthy to mention here that the steel windows manufactured in the Government units of this Department at Tanjore and Kumbakonam have been mainly used.

The length of office block in front for all the four types of units is 100 feet. The length of

JULY 1965

JULY 1965

xv

37

workshop portion in this Estate are 144 feet for 'A' type units 123 feet for 'B' type units, 96 feet for 'C' type units and 72 feet for 'D' type units. There is a courtyard for each type of factory units, in the rear of the workshop portion, where the amenities such as garage, rest shed, cycle stand and lavatory block intended for each unit have been provided. The entry to the office block or to the workshop or courtyard is only from the front main road and it is felt that this type of arrangement enables proper watch and control over materials received and products despatched.

70 Factory units have been constructed in all. The features of the units are given below:

Type	No. of units	Plot area for each unit	Plinth area in square feet for each unit			
			Office	Workshop	Amenity	Total
A	10	67 cents	3,037	11,839	1,576	16,452
B	20	67 cents	3,037	9,860	1,576	14,473
C	20	57 cents	2,520	7,958	1,413	11,891
D	20	50 cents	2,520	5,958	940	9,416

In addition to these 70 units rented out to private industrialists Government have also sanctioned the location of some departmental units such as a Tool Room Shop, a Structural Workshop, a Common Lease Shop, in the Estate premises so as to provide common services and facilities to the private small scale units here. In addition to these, godowns have been provided to enable the industrialists to store their raw materials or their finished products.

Apart from these special amenities, the service amenities such as, roads, water supply, sewage arrangements, street lighting, power supply to the units and common amenity buildings such as, administrative block, canteen, first aid post, telephone exchange, fire station, bank, police station, dispensary etc.

have been provided. Steps have also been taken to construct labour tenements under the Subsidized Industrial Housing Schemes. To start with, it has been proposed to construct 99 tenements in sixteen three storeyed blocks. It has been programmed to provide 320 tenements ultimately, when the Industries fully develop in this area.

AMENITIES PROVIDED

Roads:—The specifications adopted in the formation of roads are based on the recommendations of the Director, Highways Research Station, Guindy. Two different types of specifications have been adopted depending whether the soil at site is clayey or sandy.

The specifications adopted for the formation of sub grade on clayey soil consist of 6" thick sand layer at the bottom over which a sand gravel layer of 9" thick has been provided. Over this sub grade 5" thick water bound macadam surface laid in 2 layers viz. 3" thick with 2" metalling and 2" thick with 1½" metalling have been provided. 1" thick surface dressing using ½" chips has been proposed over the water bound macadam surface.

In sandy stretches, a sub grade of 6" thick sand gravel layer and 5" thick water bound macadam over that is laid in two layers as stated above. 1" surface dressing using ½" chips has been proposed over the water bound macadam surface.

Roads of different widths have been laid to suit the requirements of traffic expected. Five different classes of roads have been provided viz., roads of 120 feet wide, 100 feet wide, 80 feet wide, 60 feet wide and 50 feet wide. The formation widths for 120 feet, 100 feet and 80 feet wide roads is 36 feet with 18 feet black topped surface and 8 feet gravel berms on either side. For 60 feet and 50 feet roads, the formation width is 24 feet with 12 feet black topped surface and 6 feet gravel berms on either side.

The total length of roads formed in the Industrial Estate and Developed plots areas are 3.4 miles and 4.1 miles respectively totalling to 7.5 miles. The total cost of formation of roads in the Estate area and the Developed plots are Rs. 8.14 lakhs and Rs. 10.59 lakhs respectively.

Water Supply: Water supply to the Estate will be from Red Hills lake through a branch main 16" dia. taking off from the 24" cast iron main supplying water from Red Hills to Avadi Defence Factory. It is proposed to draw 2 million gallons per day from Red Hills for the Estate and Developed Plots. The water drawn from Red Hills will be pumped on to elevated R. C. C. Reservoirs located within the Estate and distribution effected to various units. The Estimated cost of the Comprehensive Water Supply Scheme is about Rs. 12 lakhs. At present, water is supplied to the units from local wells from which water is pumped to steel over head tanks erected at convenient points and distribution effected to units.

Sewerage System: The Estate will be provided with underground sewage system finally leading to a collection well from where it is proposed to be pumped into an oxidation pond for treatment. The treated harmless effluent from the Estate Area and the Developed Plots area will be led on into nearby tanks.

Surface Drains: Storm water from the Estate and Developed Plots area will be led on through road drains ultimately to Padi and Mogappair tanks through natural courses improved to function effectively.

Electrification: Power supply to this Estate is effected by the Madras State Electricity Board. The Korattur Sub-station is very near to the Estate which afforded easy draw of power for the Estate. Street lighting with modern decorative fittings are provided to give pleasing illumination to the roads, parks and lawns. The factory units have been provided with twin industrial type fittings to

give effective lighting. With the probable large scale development of industries in the Estate, a 33/11 KV Sub-station will be ultimately put up by the Madras State Electricity Board with two 5,000 KVA transformers and seven 500 KVA transformers so that ample power availability is secured.

It may thus be seen that the Ambattur Industrial Area in itself is a township with all the needed amenities and facilities.

COST DETAILS

S. No.	Details	Departmental Units	Developed Plots
1.	Buildings	162.15 lakhs	—
2.	Roads	8.50 lakhs	10.59 lakhs
3.	Water Supply	18.48 lakhs	16.48 lakhs
4.	Storm water drains	4.83 lakhs	4.98 lakhs
5.	Underground sewage system	3.37 lakhs	7.16 lakhs

COST UNDER BROAD HEADS

Item No.	Name of work	Cost
1.	Departmental Units	2,08,36,000
2.	Developed Plots	48,21,250
3.	Service Centres	10,44,550
Total		2,67,01,800
or 267.00 lakhs		

BUILDINGS

Type	Building portion	Water supply & Sanitary arrangements	Electrical arrangements	Total Cost
	Rs.	Rs.	Rs.	Rs.
"A"	2,59,900	7,900	13,300	2,81,100
"B"	2,31,700	6,500	11,600	2,49,800
"C"	1,88,400	6,400	9,800	2,04,600
"D"	1,51,400	6,300	8,100	1,65,800

SERVICE CENTRES

Name of work	Plinth area in sq. ft.	Cost of building	Water supply and Sanitary fittings	Electrical arrangements	Total Cost
Tool Room Workshop	10,514	2,44,000	7,800	8,400	2,60,200
Office and Store two storeyed	2,543				
Structural Workshop (Main Shop)	46,652	7,02,000	10,350	72,000	7,84,350

**BUILDING MATERIALS USED IN AMBATTUR
INDUSTRIAL AREA**

Cement	...	...	9,690 tons
Steel ...	...	...	2,300 tons
Paint ...	...	...	1,720 gallons
Bricks ...	...	...	1,79,28,200 nos.
Granite metal	...	...	6,21,080 cft.
Sand ...	...	...	12,29,750 cft.
Lime ...	...	...	55,710 cft.
Pressed tiles	...	...	13,92,000 nos.
Timber	...	...	11,828 cft.
Glass ...	...	...	1,62,200 sft.
A. C. Sheets for roofing	...	...	9,58,790 sft.



Now available, the low-cost
ICM Bicycle
with the life—long service

All components standardised and
quality—controlled and assembled
under strict supervision at the

**GOVT. CYCLE ASSEMBLY UNITS
AT VELLORE & THANJAVUR**

(Units of the Department of Industry and Commerce, Govt. of Madras)

GOVERNMENT GALVANIZING PLANT

METTUR DAM, SALEM DISTRICT

PRODUCTION - CUM - SERVICE UNIT OF THE
GOVERNMENT OF MADRAS

For all kinds of structural works like

- ★ TRUSSES
- ★ GIRDERS
- ★ TRANSMISSION TOWERS
- ★ RAILWAY ELECTRIFICATION EQUIPMENTS

and also
undertakes Hot-Dip Galvanizing
to protect all Steel/ Iron struc-
tures and materials from corrosion.

— Please contact —
The General Superintendent,
Government Galvanizing Plant,
Mettur Dam.

JULY 1965

xxix

We offer our

BEST WISHES

for the success of

THE INDUSTRIAL ESTATE AMBATTUR

on the occasion of its inauguration

BY

Sri K. KAMARAJ

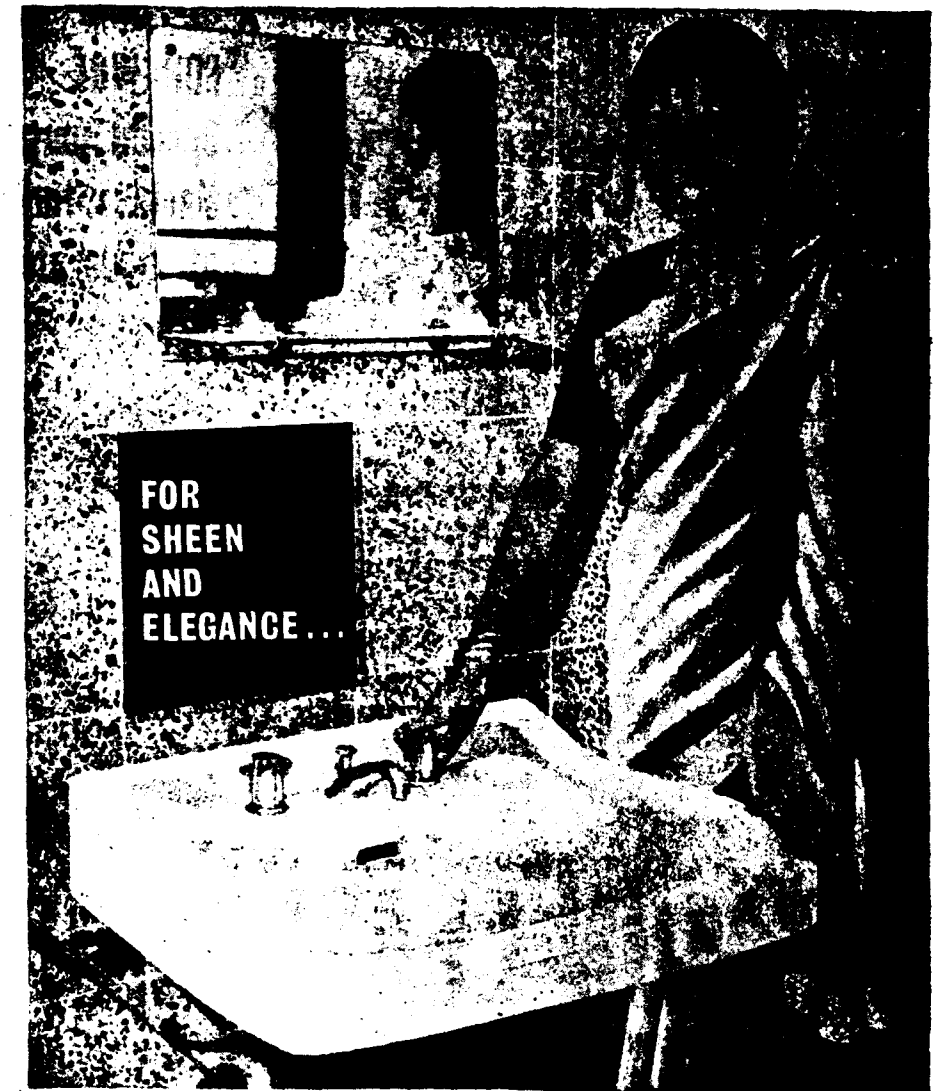
President, Indian National Congress

MADRAS SPINDLE COMPANY LIMITED

4, CATHEDRAL ROAD, MADRAS-6

We are glad to announce that in our Unit B-18,
in the Estate we have commenced production of
RINGS
much needed by the Textile Industry in India.

JULY 1965



GOVERNMENT CERAMIC CENTRE manufactures moderately priced excellent quality sanitary ware • Indian and Western Style • Water-closets • Washbasins and Corner Washbasins • Urinals • Oval and rectangular footrests • Laboratory and Kitchen Sinks • Pedestals • Crockery • L. T. Insulators and Art ware. Individual orders of porcelain articles, with special specifications, are also welcomed.

GOVERNMENT CERAMIC CENTRE
VRIDHACHALAM, SOUTH ARCOT DISTRICT, MADRAS STATE

With the best compliments from

FOMRA BROTHERS ENGINEERING WORKS

Manufacturers of :

SIGNALLING & TRAIN LIGHTING
EQUIPMENTS FOR THE
INDIAN RAILWAYS

Head Office :
FOMRA BROTHERS,
392, Mint Street,
MADRAS-1.
Phones : 32554 & 33078

B-20, Industrial Estate,
Ambattur,
MADRAS-50.
Phone : 51356
Gram : "PHUMBHRA"

UNIQUE OPPORTUNITY FOR SMALL INDUSTRIES

FOR HIRE
Special purpose
Machine tools
at moderate
charges

GEAR GENERATOR & SHAPER
CONTOUR GRINDING
EXTERNAL GRINDERS
MILLING MACHINES
DIE SINKER
TURRET LATHES
VERTICAL TURRET, ETC

Please contact : The General Superintendent in charge of
COMMON LEASE SHOP

all machines only for hire

INDUSTRIAL ESTATE, GUINDY, MADRAS



CARPENTRY AND BLACKSMITHY WORKSHOP

MANNARGUDI

Thanjavur District

Madras State

South India

a division of

THE DEPARTMENT OF INDUSTRIES AND COMMERCE, MADRAS STATE

READILY UNDERTAKES AT COMPETITIVE RATES

CARPENTRY SECTION :

Manufacture of Wooden furniture of all kinds useful for
Offices & Homes, Laboratory and Hospital furniture and also
Educational Institutions.

BLACKSMITHY SECTION :

Manufacture of Paddy Boilers; Water Tanks; Compound
Gates; Collapsible Gates; Grills, Shutters and Agricultural
Implements.

Servicing facilities are also being extended for Welding;
Turning; Painting; Caneweaving; General furniture repairs etc.

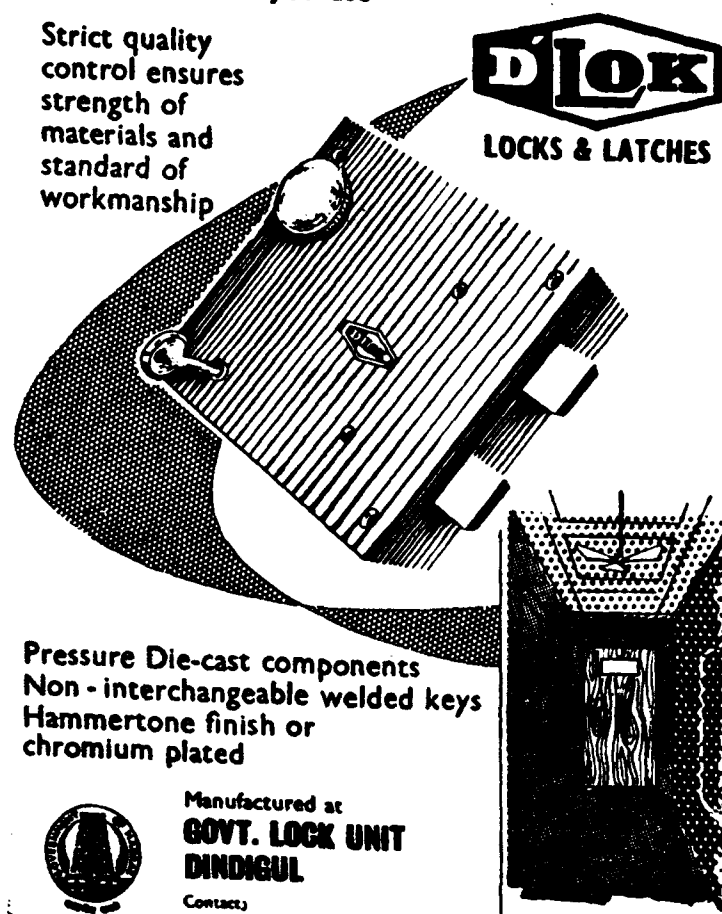
For details please contact :
SUPERINTENDENT

PRIMARYLY SECURITY

Then **GOOD APPEARANCE**

both are there if you use

Strict quality control ensures strength of materials and standard of workmanship



D'LOK
LOCKS & LATCHES

Pressure Die-cast components
Non-interchangeable welded keys
Hammer tone finish or
chromium plated



Manufactured at
GOVT. LOCK UNIT
DINDIGUL

Contact:
Deputy Director (Sales)
Dept. of Industries & Commerce
Madras-5.

AMBATTUR INDUSTRIAL AREA

(CONTRIBUTED)

Covering an area of 1,200 acres of land situated right in the heart of a growing industrial belt the Ambattur Industrial Area marks a new departure in industrial planning. It is neither a conventional Industrial Estate consisting of a few factory buildings put up by the Government and rented out to small scale industrialists nor a big industrial township built around a huge industrial complex but partakes of the characteristics of both. It brings small industries of the conventional type next door to medium and big industries with a view to promote mutual assistance and greater production and that in the setting of a live town-ship complete with houses for workers and managerial staff, market, schools, recreation facilities, parks etc.,

THE Ambattur Industrial Area, thus, groups a number of small, medium and big industries, integrates them in the industrial girdle that encircles the City of Madras, contains the working population within the area and shows the way to siphon out the City's population into the thriving neighbourhoods.

ANSWER TO THE CHALLENGE

The Industrial Area at Ambattur is an extension of the accepted concept of Industrial Estates which provides for the planned development of small scale industries. The ground work done in the various sectors of the State's economy during the first two plan periods has imparted a great tempo to industrial activity in and around Madras City. The availability of quick and cheap

transport, of technical skills and other facilities proved a great attraction to entrepreneurs from all over India to start industries in the City. The haphazard growth of industries in and around the city with its own impact on transport, accommodation, civic amenities etc., provided a challenge to the planners. The Industrial Estate, Guindy, and the eleven other estates in different parts of Madras State, brought into being during the Second Plan Period provided an answer to this challenge. The success of the scheme was encouraging and thirteen more estates were sanctioned during the Third Plan Period. Of these, twelve have started functioning and Ambattur is one of them.

The Ambattur Industrial Area caters for the needs of the small, medium and big industries in a self-contained township. When it is fully

developed, it will employ about 30,000 workers and will house about 5,000 persons belonging to the managerial, middle income and labour groups.

IMPORTANT INDUSTRIAL BELT

An extent of about two square miles of land has been acquired in the villages of Ambattur, Pattravakkam, Korattur, Mannur, Mogappair and Athipattur villages of Chingleput district at an estimated cost of about Rs. 60-00 lakhs. The site is situated on both sides of Madras-Avadi Road and is at a distance of about 8 miles from Fort St. George and about 3 miles from the point where Avadi Road branches off from the Poonamallee High Road. The site is located in one of the most important industrial belts in the City which is a growing complex housing such large scale industries as the Integral Coach Factory, the T. V. S. Group of Automobile components Factories, the Shaw Wallace Fertiliser and Chemical Factories, the Asiatic Oxygen Factory, the Defence Department Clothing Factory and the Heavy Vehicles Factory. This up and coming industrial belt can be described as the Perambur—Avadi—Ambattur Industrial Complex. The Ambattur Industrial Area is bisected by the new Avadi Road and is flanked on the northern side by the Madras—Arkonam broad gauge Railway line. It is at a distance of seventeen miles from the meenambakkam airport and eleven miles from the Madras Harbour. The distance from the various rail heads is given below:—

	Miles
From Madras Central (broad gauge)	8
From Madras Egmore (meter gauge)	6
From Korattur Railway Station (broad gauge) ...	2
From Ambattur Railway Station (broad gauge) ...	2

The 120 feet outer ring road of Madras which is a part of the Madras City master plan passes through the Area. When this road is finally developed it will connect Ambattur with all the important industrial belts like Guindy, Ennore, Vandalur, and will also connect the site to the 3 National Highways to Bangalore, Cape and Calcutta.

IMPLEMENTED IN TWO STAGES

The Scheme is being implemented in two stages. In the first stage 630 acres of land on the southern side of the Madras-Avadi road has been acquired and developed. Out of this, 200 acres have been utilised for setting up a conventional Industrial Estate intended for Small Scale Industries which follows the usual pattern. The remaining lands have been developed and plots have been allotted to large, medium and small scale industrialists who have set up or are in the process of setting up their own factory buildings. In the second stage, which is to be taken up shortly, 570 acres on the northern side of Madras-Avadi Road are to be developed.

CONVENTIONAL INDUSTRIAL ESTATE

Seventy factory buildings of four sizes have been built and allotted to deserving industries, mostly of the light engineering type. Of these 70, 58 have already gone into production and 12 are at various stages of acquiring and installing machinery. The factories have been designed on the most modern lines and provide for factory and Office space, garages, rest sheds, lavatories, cycle stands as well as adequate open space. The Units have been

so designed that the smaller factories can be one or two bays. The space particulars with upgraded in due course by the addition of regard to each type are given below:—

Type	Office	Built Area		Total built area	Unbuilt open space	Total area for each Unit	No. of Cycle stands	No. of W. Cs.
		Factory	Amenity building					
A	2,728	11,773	1,540	16,041	18,387	29,428	22	8
B	2,728	2,826	1,540	16,041	14,816	28,909	19	7
C	2,228	7,879	1,369	11,476	13,665	25,141	16	7
D	2,228	5,932	1,322	9,482	12,536	22,018	13	6

The units are provided with water supply, drainage and sewerage. Power supply is given directly by the Electricity Board. In view of the pressing demand from the small scale industrialists for space at Ambattur, the Government are proposing to build 50 more factory units. This work is likely to be sanctioned in the course of this year.

SUBSIDISED RENT

Considering the nature of industries coming up in this area and also the location of the Estate and other criteria, the Government have fixed the subsidised rent at 9 np. per square foot of covered usable floor area. Based on this rate, the rent for each building in the Industrial Area, Ambattur, is as follows:

Type	Total covered usable floor area in square feet	Monthly subsidised rent (in Rupees)
A	15,226	1,375-34
B	13,324	1,199-16
C	10,772	969-48
D	8,467	762-03

OTHER AMENITIES

The Industrial Area is served by a modern Tool Room which caters for the requirements of the industrialists in the Area and outside in the matter of tools, dies, jigs and fixtures. There is also a structural workshop which handles a variety of engineering job works. The workshop has been allotted 20 acres of land and has already handled work to the value of Rs. 36-30 lakhs. The State Bank of India has been allotted a site and the bank building is nearing completion. One of the built-up units is allotted to the Common Lease Shop which will be commissioned shortly. Three sites have been allotted to petroleum companies. They will be installing bunks and service stations during the course of this year. A site has been earmarked for the fire station. The scheme has been recently sanctioned and the work of constructing the fire station is to be taken up next month. A Police Station has been sanctioned for the Estate and was inaugurated last month at its temporary location at Padi. A temporary shed is being constructed for the Station till such time as the pucca building comes up. The building is expected to be ready in about

eight months time. The Estate is now served by a temporary canteen. The new canteen building which is designed to cater for the needs of 2,000 persons is nearing completion. There is a telephone exchange functioning at the Area, and almost all the units have telephones. A Post Office has also been established at the Estate and is now functioning.

DEVELOPED PLOTS

About 430 acres of land adjacent to the conventional estate described above has been developed and allotted to large, medium and small scale industries. This area has been divided into 105 plots of sizes varying from 1 acre to 12 acres. These plots are "developed" in the sense that they are provided with all the basic facilities required for starting an industry, viz., water supply, drainage, sewerage, roads and electricity. The following particulars would be of interest:

	Developed Plot	Estate
No. of plots	105	
	miles	miles
Length of roads provided	4.06	3.4
Length of open drains provided	8.1	6.35
Length of underground sewerage lines provided	5.04	2.65
Length of water supply mains provided	4.7	4.55
No. of overhead tanks constructed	7	

INDUSTRIES OF ALL TYPES

In the developed plots area, provision has been made for industries of all types and sizes with special areas earmarked for Chemical Industries and Food/Fruit based Industries. Provision has also been made for labour tenements, administrative block, police station, fire station, telephone exchange, first aid post, godowns, garages, banks, post-office, canteen

shopping centres, schools, playgrounds, gardens, petrol bunks, service stations etc.,

Of the 105 plots, 71 have been allotted and taken over by industrialists. Of these 22 have taken up construction, and 11 have gone into production. The others are at various stages of getting plans approved, procuring building materials, machinery etc.

Of the various amenities provided for, the Post Office, the Telephone Exchange, the Godowns have been completed. The State Bank and the Canteen are nearing completion. The Structural Workshop is already functioning and is under expansion. The Tool Room is functioning temporarily in one of the built-up units and is moving to its new building shortly. The Police Station and Fire station have been sanctioned and will be taken up very shortly. The Plans for administrative block are being finalised and the work is expected to commence in a few months time. The administrative block will house, among other things, the Office of the Administrative Officer, the Office of the maintenance branch, the first aid post and the exhibition room.

CHEMICAL INDUSTRIES

15 Plots with a common sewage disposal plant have been earmarked for chemical industries at the southern end of the Estate. Of these 11 have been allotted to Chemical and Pharmaceutical Industries.

A Scheme to construct 12 units to accommodate fruit and food based industries is now before Government. This Scheme which will involve an expenditure of Rs. 14.28 lakhs will provide common services like gas and refrigeration. The units will be built by the Government on the conventional pattern and rented out to industrialists on subsidised rent. This section is likely to house industries like fruit canning, vegetable and fruit dehydration, pickles, jams, milk products, fruit juices and so on.

TERMS OF ALLOTMENT

The Developed Plots Scheme differs from the conventional Industrial Estate in as much as developed land alone is provided to industrialists. The Industrialists have to make their own arrangements to put up factory buildings and commence production. These plots are available to small, medium and large industries. The cost of land at Ambattur in the 1st phase has been fixed at Rs. 16,000 per acre. This sum includes the cost of land and the cost of development. The scheme is a no profit no loss scheme. This amount of Rs. 16,000 is payable in 3 instalments spread over three years. The first instalment of 50% of the price of land is to be paid before the land is taken over. The second instalment is payable within 2 years of taking possession of the land and the third within a year thereafter. No interest is charged on the outstanding amount. The transaction between the Government and the allottee is covered by an assignment deed which stipulates certain conditions, the most important among them being that the plot is meant only for the particular industry for which it is allotted, that no construction can be put up without the approval of the authorities and that the plot cannot be sold or disposed of in any manner. The right of the parties to mortgage the land however is not in any way abridged. This has to be done with the prior permission of the Government.

WATER SUPPLY

The estimated requirements of the area including the conventional Industrial Estate and the northern phase is in the order of 2.25 million gallons. Out of this, 0.25 million gallons will be obtained from the underground water sources within the Estate. The remaining 2 million gallons will be obtained from the Red Hill Lake which supplies water to Madras City. At present the needs of the Area are met from underground sources

through a network of 7 overhead tanks. The main overhead tank with a capacity of 2½ lakh gallons is almost complete. This will start functioning as soon as the water mains from the Red Hills Lake net work to the Estate have been laid. The work is to be taken up shortly. Water mains within the Estate have already been laid.

SEPARATE SUB-STATION

The Madras Electricity Board has agreed to provide power supply to the industries allocated space in this area. 11 KV, 33 KV, 110 KV and 230 KV power lines pass through the Estate. There is a sub-station situated at Korattur, within a distance of one mile, and there is a proposal to set up a separate sub-station at the Estate. Units in the Conventional Estate and Developed Plots Estate are obtaining power directly from the Electricity Board.

The Estate is 2 miles off the Korattur and Ambattur Railway Stations on the Madras-Arakonam broad gauge line and there are convenient trains in the mornings and evenings which many of the workers take advantage of. There are regular buses plying from the city (Broadway), to the Industrial Estate throughout the day. A good number of employees also travel by buses. The State Transport has taken over an area of 4.22 acres for their bus stand and terminus.

PROVISION OF HOUSING

Provision has been made for a large number of labour tenements in the south-eastern corner of the Industrial Area. To begin with, 99 tenements at the cost of Rs. 10.45 lakhs has been sanctioned and tenders have been called for. The work is expected to be completed within a year. Modern multi-storeyed buildings have been designed. In the southern phase provision has also been made for staff quarters for various staff attached to the Industrial Area. This combined residential area will be well served

by shopping centres, children playgrounds, primary schools etc. and possibly a theatre. Besides this residential area, a large area of about 300 acres has been earmarked on the northern side of the new Avadi Road for housing. This area is being acquired and developed by the Madras State Housing Board. Land acquisition is in progress. This area will be mainly for managerial and middle income groups who will be provided housing on the usual pattern as in the various neighbourhoods developed by the State Housing Board in the City. When the Housing Schemes are complete it is expected that at least 20 to 30% of the employees in the Industrial Area will be housed in the area.

OTHER FACILITIES

The Industrial Training Institute which is presently functioning at Guindy is to be shifted to Ambattur shortly. Industrial Training Institute building has been allotted a plot measuring twenty acres and construction is in progress. This site is situated on the

northern side of the new Avadi Road. The institute is on the same pattern as the Institutes elsewhere in Madras State and will be training artisans in various trades. The Small Industries Service Institute and the Indian Standards Institute have also approached the Government for sites in this area and are likely to be accommodated here.

The horticultural development of the Estate has been taken up in a big way. There is a full time Assistant Garden Superintendent and the advice of a Horticultural expert has been availed of for the planning of the landscape and the avenues in the Industrial Area. Many of the avenues have been planted and the pond area on the new Avadi Road has just been taken up for the development of a park. The Department is also thinking in terms of theatres, clubs and other recreational facilities which will be finalised shortly. Since the Ambattur Industrial Area is expected to be a complete town-ship, all these facilities will have to be provided.

THE DETAILS OF DEVELOPED PLOTS ALREADY ALLOTTED

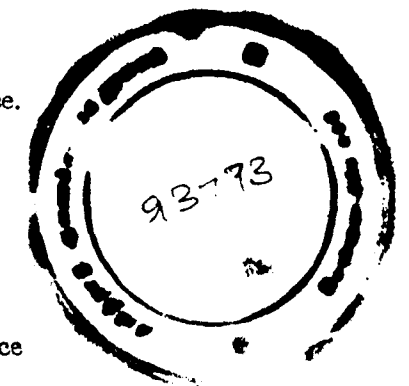
No. Sl.	Developed Plot No. allotted	Name of allottees	Type of industry or line of Manufacture for which allotted
1	2 A	M/s. Hargo Industries, No. 425, Mint Street. Madras-1.	Spare parts for rolling mills, flour mills, oil mills and diesel engines and manufacture of sanitaryware goods, etc., job works, steel castings, machine tools manufacturing and fabrication.
2	3	A. R. Dhamodaran, 10, Beach Road, Cuddalore O. T.	Manufacture of collets.
3	4	The Tamil Nadu Handloom Weavers Co-op. Society, 34-1 A, Panthian Road. Egmore, Madras-8.	Evaset, preshunk process dyeing and sizing gold. Thread making pattern screen printing, ready-made garment making and processing.
4	6	M/s. India Forge & Drop Stamping Ltd., 331-333, Thambu Chetty Street, Madras-1.	Manufacture of iron and steel forgings and drop stampings.
5	7	Southern Switchgear. Finance House, Pattullo Road, Madras-2.	Low, high and medium tension circuit breakers. Bus bar chambers motor starters and switches.
6	8	M/s. Kerry Jost Tools & Co. Ltd., 7/2, Bhisop Waller Avenue, Madras-4.	Manufacture of drilling machines.
7	9	Century Flour Mills. 330, Thambu Chetty Street. Madras-1.	Biscuits and bakery products.
8	12	M/s. Andhra Malleable Castings & Forgings (P) Ltd., 107, Kilpauk Garden Colony, Madras-10.	Malleable casting and forging.
9	13	M/s. Indian Oxygen Ltd., 7 A, Vaithianathan Mudali Street, Madras-21.	Welding electrodes.

Sl. No	Developed Plot No. allotted	Name of allottees	Type of industry or line of Manufacture for which allotted
10	14	M/s. India Meters Ltd., Bank of Mysore Buildings, 377, Netaji Subhas Chandra Bose Road, Madras-1.	Manufacture of meters.
11		M. s. Omega Insulated Cable Co. India Ltd., Mount Road, Madras-6.	Cables.
12	16	do do	
13	17	do do	
14	18, 19 & 20	M/s. Sivananda Steel Ltd., 13-240, Diwan Bahadur Road, R. S. Puram, Coimbatore.	Steel castings required for railway industry, sugar and earth-moving machinery industry.
15	21	M/s. Steinmetz & Co. (Madras) (P) Ltd., Victory House, 7-8, Mount Road, Madras-2.	Ready-made garment and wearing apparels.
16	24	M/s. Indian Bright Steel Co. Ltd., Habib Mansion, 2nd Floor, 34-35, Broadway, Madras-1.	Manufacture of bright steel bars and shaftings.
17	25	Southern Electricals (P) Ltd., 2, Andhra Insurance Buildings, 337, Thambu Chetty Street, Madras-1.	Oil circuit breaker parts, switch gear parts both cast iron and sheet steel cable boxes, fuse boxes etc. Aluminium castings like fans for motors O. C. B. covers etc. develop and design new items to feed large industries.
18	26	M s. National Plastic Industries, 13, South Maddley 1st Street, T'Nagar, Madras-17.	Cycle handle bar grips, thermos flask spare parts, fountain pens spare parts, motor accessories, sanitaryware and articles of industrial interest made of plastics.
19	27	M/s. Himco Batteries (P) Ltd., 144, Mount Road, Madras-6.	Lead storage batteries, plates and battery cables.

Sl. No	Developed Plot No. allotted	Name of allottees	Type of industry or line of Manufacture for which allotted
20	31 A	Amirohand J. Sha, c/o The South India Flour Mills (P) Ltd., 1/2, Royapuram Beach Road, Madras-13.	Manufacture of enriched and vitaminised cattle and poultry feed.
21	31 B	Peanut Products (P) Ltd., 1/2, Royapuram Beach Road, Madras-13.	Roasted and salted peanuts out of raw peanuts.
22	32 A	M/s. National Engineering Co. (P) Ltd., 379, N. S. C. Bose Road, Madras-1.	Assembling tractors, pre-delivery inspection, servicing and repairing of Tractors and manufacture of spare parts for tractor etc.
23	32 B	do do	
24	33 & 34	M/s. Marshall & Sons Co. Manufacturing (P) Ltd., 233, Kilpauk Garden Road, Madras-10.	Manufacture of power furnaces stone breakers dying and mixing plants and other equipments required making.
25	35	Madras Spindle Co. Ltd., 4, Cathedral Road, Madras-6.	Manufacture of spindles, rings, fluted rollers, conversion materials.
26	36	Sri P. Suryanarayana, Indian Chamber Buildings, Madras-1.	Water meters.
27	37	M/s. Plastikote Industries, 23, Anderson Street, Madras-1.	Manufacture of thermoplastic coated and laminated products.
28	38	Transistor Products (P) Ltd., 7, Landons Road, Kilpauk, Madras-10.	Manufacture of hearing aids, setting up of a tool room and manufacture of hearing aid batteries.
29	41	Currimbhoy Industries, 286/A, T. H. Road, Madras-21.	Manufacture of Industrial Lighting fittings, machine parts, iron and steel tubular furniture glass vacuum refills and heat resisting glass ware.
30	42	Micron Engineers, 47-A, Cooum Road, Madras-2.	Drafting and Engraving, machine precision machining instrument, mass production of intricate motor parts by cintering process.

Sl. No.	Developed Plot No. allotted	Name of allottees	Type of industry or line of Manufacture for which allotted
31	43 & 44	Virgo Industries, 95, Kilpauk Garden Colony, Madras-10.	Manufacture of boiler parts spare parts for motors, pumps, fabrication of tanks, chimney motor and pump base plates, dumper buckets etc.
32	45	Malt & Allied Products Co. (P) Ltd. 290, Linghi Chetty Street, Madras-1.	Malt Extract and allied products.
33	50	Industrial Feeders, Plot No. 50, Industrial Estate, Ambattur, Madras-58.	Ferrous and non-ferrous castings and fabrications.
34	51	Suniti Plastic Moulders, 432, Naigaum Cross Road, Bombay-31.	Plastic industry polyethylene lay-flat tubings, bags, sheets and pipes, plastic moulded articles mainly lampshades and other electrical accessories, bakelite compression moulding for special switches for fans, household meters etc. as well as textile parts.
35	53	Estee Engineering Co. (Madras) (P) Ltd., 19, Harrington Road, Chetput, Madras-30.	Machined components, jigs, fixtures, press work and any other products or components required by light and medium industries.
36	59	M/s. Plasto Metal, 16, Luckmandoss Street, Madras-3.	Press buttons and plastic injection moulded articles of industrial interest.
37	63 to 65	M. Varadarajan, Warin India Ltd., C. D. C. Buildings, Madras-6.	Rigid P. V. C. pipes, fittings and specials.
38	69, 70, 73 & 74	The Calcutta Chemical Co. Ltd., 5/6/129, Broadway, Madras-1.	Toilets and cosmetics.
39	79, 80 & 81	M/s. Kemco Chemical Industries, 163, Nyniappan Naick Street, Madras-3.	Manufacture of metallic salts and oxides.

Sl. No.	Developed Plot No. allotted	Name of allottees	Type of industry or line of Manufacture for which allotted
40	48 & 49	M/s. Sea Shore Traders, 20, Kasi Chetti Street, Madras-1.	Time pieces, wall clocks, S. S. Hospital equipments and S. S. utensils.
41	29	Sri R. V. R. Tatachari, 320, Linghi Chetty Street, Madras-1.	Welding electrodes.
42	52	D. J. K. Cornelius, 2, R. S. V. Naidu Street, Kilpauk, Madras-10.	Structural fabrications and agricultural and other machines.
43	57	Sri M. R. Venkatesan, M s. Madras Structural Steel Fabricators, 20, B. V. Naidu Street, Triplicane, Madras-5.	Light structure, fabricator components, taps, gates, grills etc.
44	58	M/s. South India Engineering Services, 84, Sydenhams Road, Madras-7.	I. C. T. P. switches, conduit pipes, pressure cooking stoves and burners and bakelite electrical accessories.
45	56	M/s. Precision Fastenings, 12, Natesa Mudaliar Colony Street, Alwarpet, Madras-18.	Screws, pins, rivets and capston turned parts.
46	83 & 84	Government Structural Workshop, Department of Industries & Commerce.	
47	86 A & B	State Bank of India	
48	87	Madras State Transport Department.	
49	86 C & D	Government Tool Room, Department of Industries & Commerce	
50	95 A	Madras State Electricity Board.	



JULY 1965

JL
x8m, nus
1165

Plot No.

- | | |
|----------------|--|
| 11 | M/s. Shalimar Paints Ltd.,
P. O. 2472,
Calcutta-1. |
| 28 | M/s. Emmar Industries,
1/155, Mount Road,
Madras-2. |
| 30 | M/s. Rane Brake Linings Ltd.,
Ganapathi Buildings,
47, Velacheri Road,
Madras-32. |
| 54 | M/s. National Industries,
12, Periyathambi Mudali Street,
Madras-7. |
| 55 | Sri M. R. Thiagarajan,
19, Second Main Road,
Raja Annamalaipuram,
Madras-28. |
| 67, 68
& 72 | Shri H. F. Kapadia,
18, Haddows Road,
Madras. |
| 71 | M/s. Koning & Koning,
25, Aspuram Garden Colony,
Kilpauk, Madras-10. |

**FOR QUALITY
PRESSURE DIE CASTINGS
AT
ECONOMICAL COSTS**

Consult
The Superintendent

**GOVERNMENT
PRESSURE
DIE - CASTING
UNIT**



Industrial Estate, Guindy, Madras

Our many Customers
include

International Instruments, Bangalore
Radio & Electricals Mfg. Co. Ltd., Bangalore
National Electricals
Defence Establishments
English Electrical
Best & Co.
Lucas TVS.
&
Numerous Small Scale Industries

Services of Colombo Plan Expert Also Available

INDUSTRIAL AREA AMBATTUR

Sl. No.	Name of the allottee	Type of Unit	Land Rs.	Building Rs.	Machinery & others Rs.	Turn over from 1-4-64 to 31-3-65
1.	M/s. Associated Engineering Enterprises	A-1	3,000	2,59,000	2,37,000	80,000
2.	M/s. Ajax Products Co.	A-2	do	do	4,45,250	—
3.	M/s. Armcess Gauge & Tool Co. (P) Ltd.	A-3	do	do	1,21,024	34,185
4.	M/s. Marshall Sons & Co. (Manufacturing) (P) Ltd.	A-4	do	do	1,50,000	8,00,000
5.	M/s. Madras Engineering Enterprises	A-5	do	do	3,50,000	1,00,012 sets
6.	M/s. Alvittas Electricals (P) Ltd.	A-6	do	do	2,86,000	Plant erected
7.	M/s. Swiss Weld Mesh Co. (P) Ltd.	A-7	do	do	2,30,668	Not furnished (started on Nov. 64)
8.	M/s. Best & Co. (Manufacturers) (P) Ltd.	A-8	do	do	1,98,000	—
9.	M/s. Gordon Woodroffe & Co. (M) (P) Ltd.	A-9	do	do	7,50,000	—
10.	M/s. Modi Electric Manufacturing Co.	A-10	do	do	—	—
11.	M/s. Sivakami Industries.	B-1	do	2,21,000	2,50,000	Not furnished

ALLOTMENT OF FACTORY UNITS

Items of Manufacture	Production Capacity per annum	No. of persons Employed			Remarks
		Total	Supervisors	Workers	
Machine shop cum General Purpose Workshop for machining the Aluminium castings made by Royal Enfields.	600 nos.	9	—	—	
Steel furniture and equipment (filing cabinets, shelvings) etc., Postal franking machines in collaboration with Roneo.	—	—	—	—	
Machine tool accessories, special machines, small machine tools	1,39,500	40	8	32	
Coffee curing machinery, boiler test pumps, Boiler feed pumps, boiler washout pumps, unit dust collectors, steam jet oil burners, tractor drain agricultural implements, industrial fans and blowers, concrete mixers, spare parts for Marshall Road Rollers and chassis and screen assembling for stone crushers.	Job work	58	2	56	
Umbrella ribs	30,012 sets	170	14	156	
Re-inforcement wires and other ferrous and non-ferrous wires and making of A.C.S.R. Conductors.	1,200 tons	—	—	—	
Concrete reinforcement fabrics and sheets (weld mesh).	2,500 M. tons	50	—	—	
Teleprinter motors and components of rotating electrical machinery	3,000 nos. (Value 9,00,000)	—	—	—	Production not started
Range of machine tool accessories. In the first instance, collets and feed fingers	—	—	—	—	Not started.
1. Drawing aluminium and conductors and stranding them. 2. Cable accessories and overhead transmission line materials. 3. Electrical accessories including switch-gear fuse units etc.	—	—	—	—	do
Single and double faced corrugated rolls, boards, containers, cartons etc. in automatic machines and double colour printing	5,00,000	2	—	—	

Sl. No.	Name of the allottee	Type of Unit	Land Rs.	Building Rs.	Machinery & others Rs.	Turn over from 1-4-64 to 31-3-65
12.	M/s. Engineering Tools & Services	B-2	3,000	2,81,000	3,00,000	26,000
13.	M/s. Standard Machine Tools	B-3	do	do	2,81,294	1,10,000
14	M/s. Kwalicy Industries.	B-4	do	do	2,80,500	2,10,000
15.	M/s. Precision Engineering Corporation	B-5	do	do	2,25,000	—
16.	M/s. Thadhani Engineering Works (P) Ltd.	B-6	do	do	50,000	2,00,000
17.	M/s. Pandit Kanahyalal Punj	B-7 and B-8	6,000	4,62,000	30,000	—
18.	Sarada Industries	B-9	3,000	2,31,000	2,97,000	—
19.	M/s. National Electricals	B-10 a	do	do	2,50,000	12,32,000
20.	M/s. Vijay Electricals	B-10 b			85,000	30,000
21.	M/s. India Filters Manufacturers (P) Ltd.	B-11	3,000	2,31,000	1,25,000	8,00,000
22.	M/s. Metal Cast Services.	B-12	do	do	2,16,000	2,00,000 (From Oct. 64)
23.	M/s. Kelkomponents (P) Ltd.	B-13	do	do	38,000	—
24.	M/s. Productivity Elements (P) Ltd.	B-14	do	do	2,58,000	Not furnished
25.	M/s. Madras Clothing Co.	B-15	do	do	75,000	1,82,000

Items of Manufacture	Production Capacity per annum	No. of persons Employed			Remarks
		Total	Supervisors	Workers	
Toolings	Rs. 4,00,000	22	7	15	
Dies, jigs, fixtures, press tools, special tools etc.	3,00,000	65	17	48	
Forging trimming tools and metallic patterns for shell moulding needed by their associate M/s. National Fasteners (P) Ltd. also machining the components forged by M/s. National Fasteners (P) Ltd.	96 sets (Value Rs. 1,45,000)	16	1	15	
1. Stainless steel articles for hospital, industrial and domestic purposes.	—	—	—	—	Production not started.
2. Metal pressing work. M. S. parts for gear boxes, C. I. tiebars for plys, fuse covers for Ack-Ack shells, brake boosters etc.	—	—	—	—	
Furnace ovens (Electrical & Oil fired) burners, blowers and tube well drilling machinery.	Rs. 1,00,000	9	—	—	
Water proofing products, compounds and enamels	—	—	—	—	
Precision articles like machine screws, grub screws, socket head Screws etc. & chassis.	—	—	—	—	do
Electrical house-hold appliances such as electric irons and electric fans.	Fans 6,000 Irons 9,000	103	15	90	
Components for electric fans and irons.	40,000	11	1	10	
Air, oil, fuel filters and parts thereof and other components for automobile engines.	12,000 filters	20	1	19	
1. Non-ferrous die castings. 2. Gravity and pressure casting dies.	4,80,000 lbs.	49	5	44	
1. F. Transformers, miniature volume and tone controls, band slide switches and gang condensers	21,00,000	10	—	—	
Drilling and boring machines in several variants, standardised jigs and fixtures elements, standardised work, holding devices and material handling equipment	6,00,000	10	2	8	
Men's readymade garments (shirts, bush shirts and trousers etc.)	Rs. 1,00,000	94	7	87	

Sl. No.	Name of the allottee	Type of Unit	Land Rs.	Building Rs.	Machinery & others Rs.	Turn over from 1-4-64 to 31-3-65
26.	M/s. Toshniwal Instruments.	B-16	3,000	2,31,000	1,21,000	3,20,000
27.	M/s. Wavin India Ltd.	B-17	do	do	—	—
28.	M. s. Madras Spindle Co. Ltd.	B-18	do	do	—	—
29.	M/s. Machine Mandrels Jigs & Co.	B-19	do	do	—	—
30.	M/s. Fomra Bros. Engineering works.	B-20	do	do	2,00,000	6,00,000
31.	M/s. Arkay's National Engineering & Foundry Co.	C-1	do	1,91,000	1,22,800	2,25,000
32.	M. s. Chemech Engineers (P) Ltd.	C-2	do	do	60,000	4,60,000
33.	M/s. Electricity Distribution & Utilisation Industries	C-3	do	do	80,000	—
34.	M/s. Indian Engineering & Trading Co.	C-4	do	do	1,87,678	1,50,000
35.	M. s. General Lighting Co.	C-5	do	do	37,000	—
36.	M/s. General Engineering Industries.	C-6	do	do	37,000	1,80,000
37.	M/s. Punj Sons (P) Ltd.	C-7	do	do	1,00,000	Not furnished
38.	Estee Engineering Co. (P) Ltd.	C-8	do	do	2,79,000	30,000
39.	M/s. Kasjax Engineering Ancillaries (P) Ltd.	C-9	do	do		Not furnished
40.	M/s. Winston India (P) Ltd.	C-10	do	do	2,00,000	do
41.	M/s. G. M. Metal & Wire Products.	C-11	do	do	75,000	6,00,000

Items of Manufacture	Production Capacity per annum	No. of persons Employed			Remarks
		Total	Supervisors	Workers	
Scientific instruments and laboratory equipments, gas plants, heating elements, six types of shakers and assembling of standard cells.	10,00,000	64	—	—	
P. V. C. Pipes	—	—	—	—	Production not started.
Spindles, rings and fluted rollers	—	—	—	—	do
Prismatic - centreless grinders and brake drum facing machines	—	—	—	—	do
Railways signalling equipments	60,635 nos.	228	—	—	
M. S. Bright Bars	4,000 tons	80	—	—	
Fabricating of chemical plants like condensers, distillation columns, heat exchangers, reaction tanks etc.	5,42,000	74	7	67	
Special transformers and repairs to transformers	—	—	—	—	
Fuel injection components, compression and expansion springs, cylinder head studs, shackle bolts, connecting rods, bolts for motor vehicles, nozzle testers, nozzle clearing hits	8,400 sets Carbon brushes 36,000 nos.	32	2	30	
Fluorescent lighting fittings and allied accessories and other lighting fittings	—	—	—	—	Production not started.
Various small components such as valve guides, tappets and other precision components	600 Valve guides per shift	25	—	25	
Setting up of a blending mill to process asbestos spraying materials	Not furnished	8	—	8	
Jigs, dies, fixtures, gauges and press work	do	26	2	23	
High tensile bolts and nuts	450 tons	2	—	2	
Printing inks, lithographic varnishes and printing ancillaries	75,000 kg. of bags.	8	—	—	
Tinner rivets, panel pins and barbed wire and M. S. petrol tank	600 tons	17	3	14	

Sl. No.	Name of the allottee	Type of Unit	Land Rs.	Building Rs.	Machinery & others Rs.	Turn over from 1-4-64 to 31-3-65
42	Government Structural Workshop (Departmental Unit)	C-12				
43.	Madras Metal Can Manufacturers.	C-13	3,000	1,91,000	75,000	5,00,000
44.	Government Tool Room (Departmental Unit)	C-14				
45.	M/s. Mesha Paint works	C-15	do	do	65,000	4,00,000
46.	M/s. Kamakshi Industries	C-16	do	do	1,26,200	—
47.	M/s. Madras Bolts & Nuts (P) Ltd.	C-17	do	do	1,98,999	Not furnished
48.	M/s. ESSR Industries	C-18	do	do	—	—
49.	M/s. L. P. Coat Industries	C-19	do	do	1,91,000	—
50.	M. s. Intrac Pharmaceuticals (P) Ltd.	C-20	do	do	do	—
51.	M/s. Automac Accessories.	D-1	do	1,61,000	1,60,000	4,00,000
52.	M/s. Kohinoor Engineering Co.	D-2	do	do	1,50,000	—
53.	M/s. Dovel Pistons (P) Ltd.	D-3	do	do	85,000	4,30,000
54.	M/s. Equipment Works.	D-4	do	do	50,000	2,25,000
55.	M/s. Harbour Engineering (P) Ltd.	D-5	do	do	—	—
	M/s. arvoday industries.	D-6	do	do	—	—

Items of Manufacture	Production Capacity per annum	No. of persons Employed			Remarks
		Total	Supervisors	Workers	
All kinds of tin containers and empty drums	8,25,000 nos.	33	3	30	
White stiff paint, ready mixed paint, enamel paint, cement paint and plastic emulsion paint	1,000 tons	15	—	—	
Components for motor cycles and scooters such as crank pin, driving shaft, timing shaft, hub spindles and cam spindles	—	—	—	—	
Bolts and nuts, rivets, special types of fasteners for railways & other bigger units	900 tons	50	—	—	
Film-foil paper, basic productive packagings	—	Recently started.			
Coated paper, art paper (from base paper) and other specialised packaging materials suitable for packing liquids such as milk, fruit juice and other liquid products	—	Recently started.			
Penicillin and streptomycin vialing plant unit	—				
Starter switches for diesel trucks and tractors and automobile accessories	5,10,000	33	4	29	
Cycle dynamo and light fittings, ancillary relays, switches, fuse gears and starter, radio parts, transistor radio assembly etc.	—	7	1	6	
Aluminium alloy pistons and gudgeon pins aluminium die casting and manufacture of automobile and industrial pistons	40,000 pistons 60,000 gudgeon pins	60	—	—	
Spare parts, special purpose machines involving structural and other precision machinery that may be required for major industries	—	24	—	—	
Marine parts and other instruments like light gauges, slide calipers, micrometers etc.	—	Recently started			
Cycle oil bath gear cases and domestic wick stoves	—	15	—	—	

JULY 1965

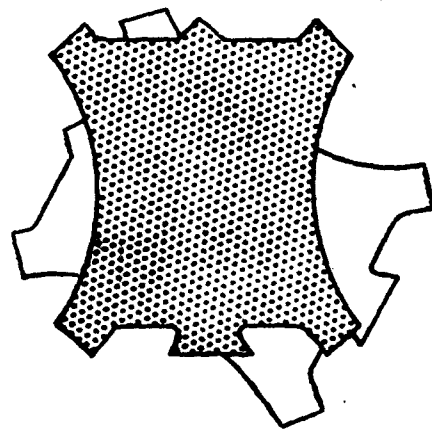
Sl. No.	Name of the allottee	Type of Unit	Land Rs.	Building Rs.	Machinery & others Rs.	Turn over from 1-4-64 to 31-3-65
57.	M/s. Stead Fast Enterprises.	D-7	3,000	1,61,000	1,50,000	2,50,000 (1-8-64 to 31-3-65)
58.	M/s. Koning & Koning, Pharmaceutical Manufacturers.	D-8	do	do	8,00,000	—
59.	(To be allotted)	D-9	—	—	—	—
60.	M/s. Metro Engineers.	D-10	3,000	1,61,000	—	—
61.	M/s. Industrial Equipment Co.	D-11	do	do	10,000	—
62.	M/s. Southern General Electro Combines.	D-12	do	do	27,000	—
63.	M/s. Shibsha Instruments.	D-13	do	do	7,266	2,40,000
64.	M/s. Shailendra Enterprises.	D-14	do	do	2,00,000	6,00,000
65.	M/s. Choksi Brothers.	D-15	3,000	do	48,626	—
66.	M/s. Coramandal Industries (P) Ltd.	D-16	do	do	1,00,000	1,06,000
67.	M/s. Kay Orr Brothers.	D-17	do	do	89,900	Not furnished
68.	M/s. Sri Lukshmi Industrial Equipment.	D-18	do	do	2,00,000	—
69.	M/s. Evans Industrial Works.	D-19	do	do	2,20,000	New concern
70.	M/s. Instruments & Apparatus (P) Ltd.	D-20	do	do	30,000	20,000

Items of Manufacture	Production Capacity per annum	No. of persons Employed			Remarks
		Total	Supervisors	Workers	
Machine tool accessories	300 nos. 720 " 240 " 600 " (One shift)	22	3	19	
Soft gelatin capsules, tablets, injection, hard capsules, oral billing ointments	—	Recently started.			
—	—	—	—	—	
Electro plating and finishing of motor cycle components and spares	—	Recently started.			
Electrical and Electronic industrial equipment such as transformers for power lighting signals, welding auto amplification and for electronic central equipments, relay solenoids and electro magnetic equipments for all purposes etc.	—	Recently started.			
Low tension switch gears and cut-outs, railway carriage lamp fittings etc.	—	8	—	—	
Electro magnetic devices, electrical interlocks, electro magnetic brakes, annunciator panels, control panels and contractors etc.	2 00,000	45	5	40	
Sheet metal parts, taps and dies, railway signalling equipments & automotive parts	—	50	—	—	
Photographic, cine and process instruments and accessories like reflectors, spot lights, tripod, dry mounting machines, glazing machines, photographic enlargers, trimmers flash guns etc.	—	7	—	—	
Vee-blocks, surface plates, clamps, midjet jacks tool setting gauges and tools and components for manufacturers	600 tons	9	—	—	
Scientific instruments like ovens, incubators, autoclave sterilizers, distilling stills and furnaces	Recently started.				
Jigs, fixtures, gauges and other tools like lathe chucks, drill chucks, machine vices, carpenter tools and black smiths' tools	Started recently	3	1	2	
Parts and sub assemblies required for sugar, cement, rubber, automobiles etc. machineries	New concern	8	—	6	
Numbering machines (hand-operated, high type and rotary) counting devices and other small instruments etc.	9,600 machines	20	3	17	

TANNING & FINISHING UNIT

VINNAMANGALAM

(North Arcot District)



QUALITY CONTROLLED
PRODUCTION UNIT OF
THE GOVT. OF MADRAS

Produces
Finished leather
of all types
like Suede
Zugrain
Sole Leather
(Chrome, Bark)
etc.

FOR PRODUCTS OF FINE VALUE



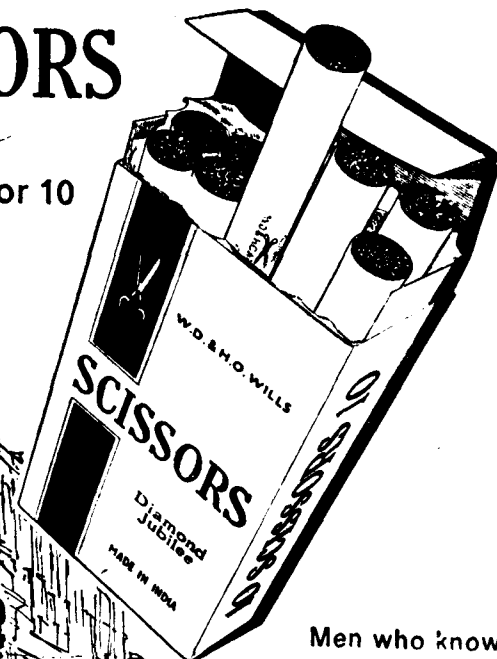
Contact :
THE DEPUTY DIRECTOR (Sales)
DEPARTMENT OF INDUSTRIES & COMMERCE,
Chepauk, Madras-5.

JULY 1965

xxvii

**men who know
are finding
a new satisfaction in
SCISSORS**

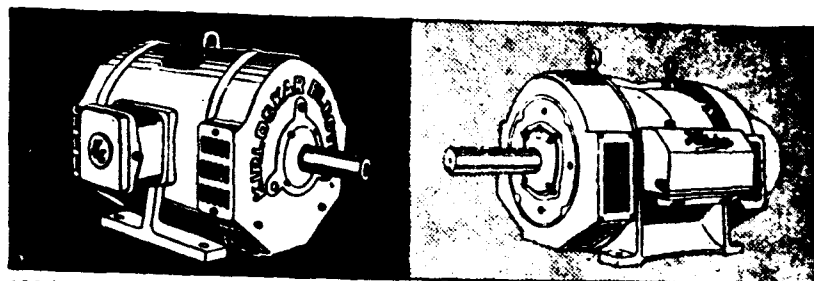
35 Paise for 10



Men who know are
finding a new satisfaction
in Scissors. In the smart
Jubilee Pack Scissors looks
good, smokes even better.
If you have not smoked
Scissors recently, try it and
you will find Scissors
well made, fresh,
satisfying.

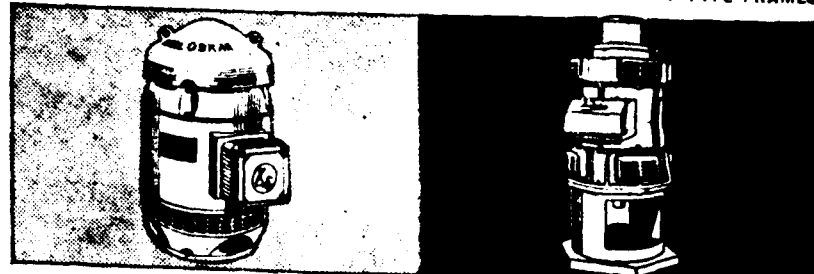
now tastes better than ever

MAKE THE ELECTRIC MOTORS YOU WANT



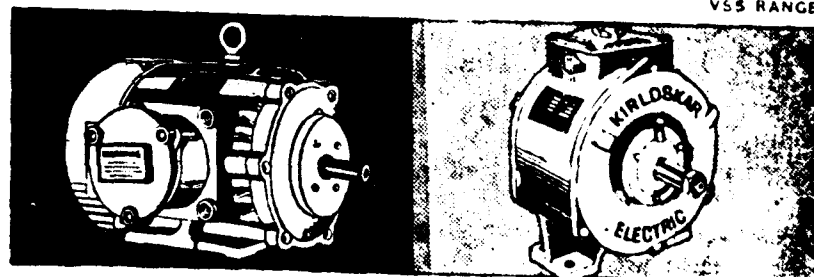
180 FRAME

T TYPE FRAMES



VHS RANGE

VSS RANGE



FLP RANGE

LOOM MOTOR

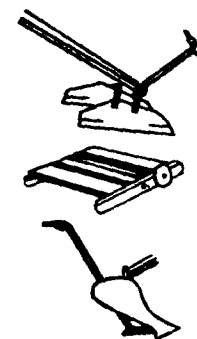


MANUFACTURED BY:
KIRLOSKAR
ELECTRIC CO. LTD.,
BANGALORE-1

Sole Agents:
PARTY & CO.
LIMITED

P. O. Box No. 12, Madras-1
P. O. Box No. 100, Bombay-1
P. O. Box No. 700, Calcutta-10
P. O. Box No. 172, New Delhi

FOR INCREASED FOOD PRODUCTION



EMPLOY IMPROVED AGRICULTURAL IMPLEMENTS

Manufactured by
FARM IMPLEMENTS UNIT
TIRUCHI (A Unit of the Department of Industries & Commerce)

Equipped with modern machinery, this unit can undertake to manufacture and supply all types of Farm Implements.



Contact:
The Superintendent,
FARM IMPLEMENTS UNIT
TIRUCHI

FLARED TUBE FITTINGS for the REFRIGERATION & AIR-CONDITIONING INDUSTRY

- Flare nuts, elbows, tees and crosses are hot stamped to eliminate porosity, seepage of refrigerants, cracking and splitting
- Machined to close tolerances conforming to rigorous standards
- Flared fittings to ASA B 70.1
- Hot stamping brass to B.S. 218
- Threads to Unified Screw Threads ASA B 1.1.



KIM

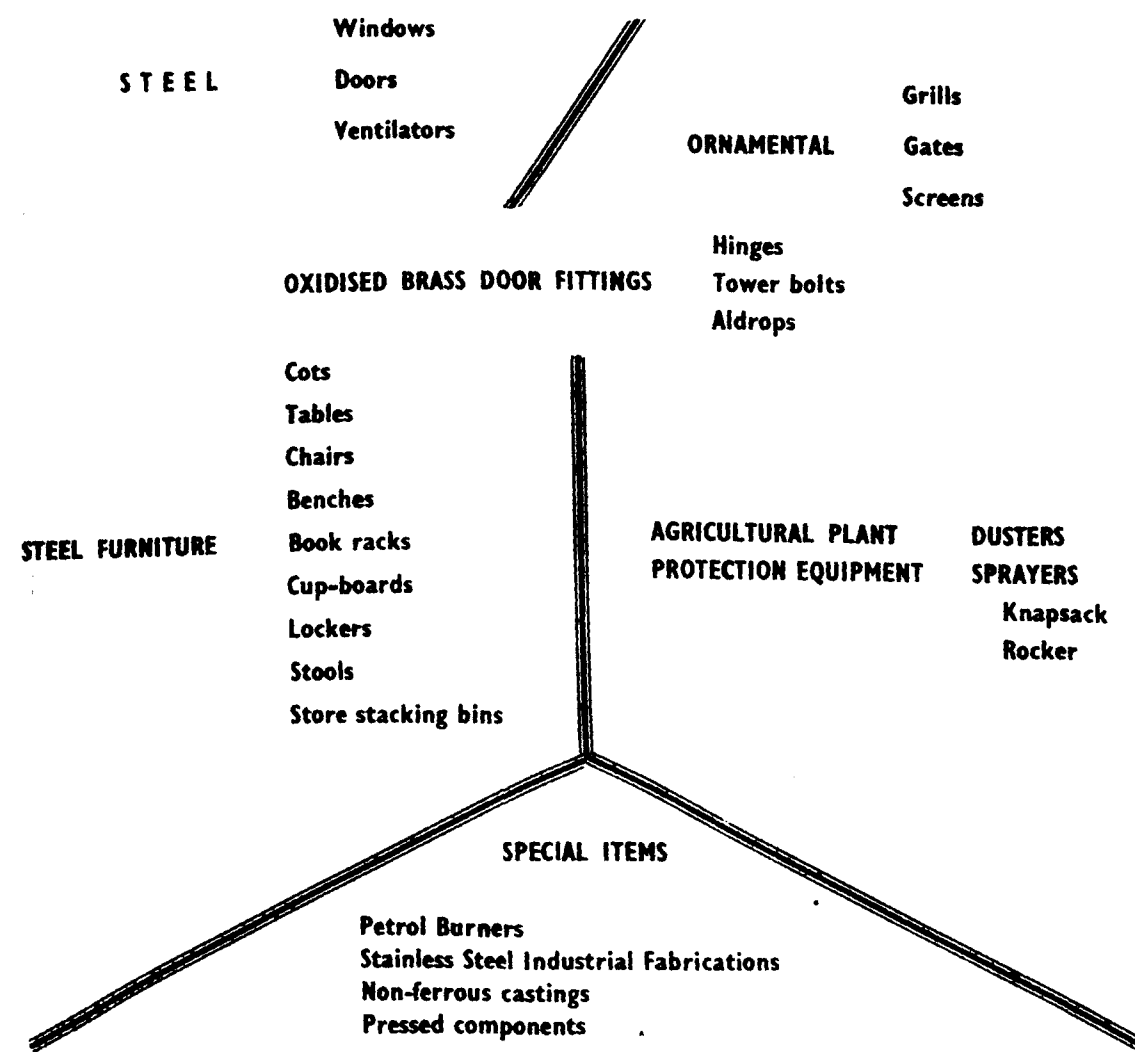
Manufacturers:
**KWALITY
INDUSTRIES**
B-4, Industrial Estate,
Ambattur, Madras-58.

EP-KW-1

Products of Marked Quality at Reasonable Rates

from

THE GOVERNMENT BRASSWARE UNIT KUMBAKONAM



Please contact: THE GENERAL SUPERINTENDENT, GOVERNMENT BRASSWARE UNIT, KUMBAKONAM.

(A Unit of the Department of Industries and Commerce, Madras)

JULY 1966

21

GOVERNMENT STRUCTURAL WORKSHOP

AMBATTUR



Specialists in Fabrication of

- ① CRANE GIRDERS
- ② BRIDGE GIRDERS
- ③ COLUMNS, TRUSSES, TANKS

and Special type of Fabrication

WE HAVE FABRICATED AND SUPPLIED MORE THAN
1,000 TONNES OF STRUCTURAL STEEL TO THE
INDUSTRIAL ESTATE, AMBATTUR, MADRAS-58



FOR YOUR STRUCTURAL PROBLEMS

Contact :

GOVERNMENT STRUCTURAL WORKSHOP
INDUSTRIAL ESTATE, AMBATTUR

for

Hospital Furniture like

COTS

BEDSIDE LOCKERS

DIET & MEDICINE TROLLEYS

etc.

General Purpose Engineering Workshops

Rajapalayam, Vellore, Tirupur, Nagercoil, Villupuram,
Karur, Tuticorin, Namakkal, Mayavaram &
Thiruvannamalai.

CONTACT THE SUPERINTENDENTS OF THE UNITS



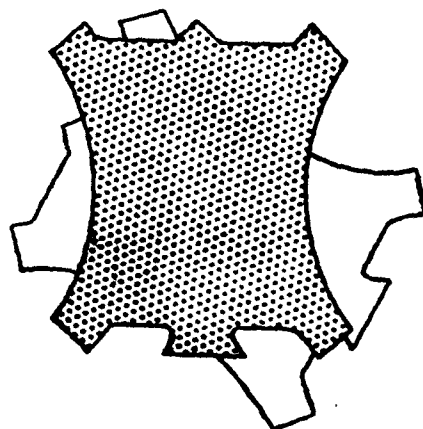
Issued by :

THE DIRECTOR OF INDUSTRIES & COMMERCE,
MADRAS-5.

TANNING & FINISHING UNIT

VINNAMANGALAM

(North Arcot District)



QUALITY CONTROLLED
PRODUCTION UNIT OF
THE GOVT. OF MADRAS

Produces
Finished leather
of all types
like Suede
Zugrain
Sole Leather
(Chrome, Bark)
etc.

FOR PRODUCTS OF FINE VALUE



Contact:
THE DEPUTY DIRECTOR (Sales)
DEPARTMENT OF INDUSTRIES & COMMERCE,
Chepauk, Madras-5.

JULY 1965

xvii

*men who know
are finding
a new satisfaction in
SCISSORS*

35 Paise for 10



Men who know are
finding a new satisfaction
in Scissors. In the smart
Jubilee Pack Scissors looks
good, smokes even better.
If you have not smoked
Scissors recently, try it and
you will find Scissors
well made, fresh,
satisfying.

now tastes better than ever