

# "ROLE OF SMALL AND MEDIUM TOWNS IN NATIONAL DEVELOPMENT

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of the requirements  
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MASTER OF ARCHITECTURE  
(Village, Town & Country Planning)

Certified that the attached Thesis/Dissertation on... *Role of Small and Medium Towns in National Development*

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ROORKEE

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C E R T I F I C A T E

Certified that the dissertation entitled, 'Role of Small and Medium Towns in National Development', submitted by Sri Najanuddin, in partial fulfillment for the award of the Degree of Master of Architecture (<sup>village,</sup> Town and Country Planning), by the University of Roorkee, Roorkee, India, is a record of the above mentioned students' own work, carried out under my overall guidance.

The matter embodied in this dissertation has not been submitted for the award of any other degree, to the best of my knowledge.

This is further to certify that he has worked for a period of six months at this University for preparing this thesis.

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C E R T I F I C A T E

Certified that the dissertation entitled, "ROLE OF SMALL AND MEDIUM Firms IN NATIONAL DEVELOPMENT", submitted by Sri Rajmudra, in partial fulfillment for the award of the Degree of Master of Architecture (Village, Town and Country Planning), by the University of Roorkee, Roorkee, India, is a record of the above mentioned student's own work, carried out under my overall guidance.

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## A C K N O W L E D G E M E N T

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C\_O\_N\_T\_E\_N\_T\_S

	<u>PAGES</u>
Certificate	1
Acknowledgement	11
Contents	111
<u>CHAPTER ZERO</u>	1
0.0 Preface	1
0.1 Introduction	2
0.2 Identification of the subject	5a
0.3 Scope of Study	5b
0.4 Methodology of Study	5c
<u>CHAPTER ONE</u>	6
1.0 Evolution of Urbanisation in India	6
1.1 National Policy of Urbanisation	8
1.2. Future Urbanisation Trend	11
<u>CHAPTER TWO</u>	13
2.0 Hierarchy of Urban Centres	13
2.1 Problem of definition of Urban Centre	14
2.2 Growth of Urban Centres and population	14
2.3 Distribution of Population in Urban Centres	15
2.4 Decennial variation in population	16
2.5 Urban content of small and medium towns	17
2.6 Migration	18
2.7 Distribution of workers	20
2.8 Economic structure of cities	21
2.9. Sectoral Composition of District income	23
2.10 Causes of low rate of growth of small and medium towns	25
<u>CHAPTER THREE</u>	27
3.0 Case study (Meerut District)	27
3.1 Hierarchy of urban centre at Meerut District	29
3.2 Rural and Urban Population	31
3.3 Density of Population	32
3.4 Sex Ratio	33
3.5 Migration	33
3.6 Economic growth rate	35
3.7 Meerut Distt. V/S N.C.R. V/S U.P. Western State	43
<u>CHAPTER FOUR</u>	47
4.0. Disposition of various functions in Distt. Meerut	47
4.10 Centrality of settlement in Distt.	51

CHAPTER IV

5.00 FINDINGS OF ANALYSES	57
5.1.0 Classification of towns and their potential growth	60

CHAPTER SIX

Conclusions and Recommendations	70
Footnotes	70
Bibliography	81

LIST OF TABLES

Table No.1	Trend in Growth of Rural and Urban population.	0
Table No.3	Classification of towns	10
Table No.4	Growth of urban centre & population	10
Table No.5	Distribution of population in urban centre	16
Table No.6	Decennial variation in population of urban centre.	17
Table No.7	Urban content and urban rural ratio	18
Table No.8	Percentage distribution of workers in each industrial category for cities	22
Table No.9	Main functional types of towns	23
Table No.10A	Sectoral composition of District Income.	23
Table No.10B	Decennial increase in population & rate of growth	20
Table No.11	Ranking of towns and percentage variation in towns	20
Table No.12	Rural and Urban population at total level	31
Table No.13	Hierarchical status of towns	32
Table No.14	Migrants to Meerut	34
Table No.15	Percentage distribution of working force	35

		<u>Page</u>
Table No. 10A	Economic characteristics of towns	37
Table No. 10B	Participation in Industrial Parks	37
Table No. 17	% of agro-based industrial units and employment	38
Table No. 18	Important industries in towns	41
Table No. 19	Area, population & density of sub-region.	44
Table No. 20	Degree of urban population, Concentration on major highways	48
Table No. 20B	Points Awarding criteria	53
Table No. 21	Number of facilities in different towns	53
Table No. 22	Points awarded to facilities	60
Table No. 23	Use value chart for 1000 population	62
Table No. 24	Small town 5-7½ million diameter	63
Table No. 25D	Medium town 10-15 million diameter	63

ILLUSTRATION OF CHARTS

<u>Chart No.</u>	<u>Nomenclature</u>	<u>At Page</u>	<u>Code No.</u>
1.	Methodology of Study	5C	a1
2A	Indian urban content	8	a2
2B	Type of town	15	a3
3	Population of Towns in Meerut District.	30	a4
4	Location of U.P. sub-region	42	b1
5.	National Capital Region	42	b2
6.	Education facilities in Meerut Distt	50	b3
7.	Education in rural settlements in Meerut.	50	b4
8	Health Facilities	50	c1
9.	-do-	50	c2
10	Communication	50	c4
11	Industries	50	c3
12	Security	50	d1
13	Security	50	d2
14	Transport	50	d3
15	Transport	50	d4
16	Recreation	50	e1
17	Recreation	50	e2
18	Shopping facilities	50	e3
19	Administration	50	e4
20	Infra-structure	50	f1
21	Infra-structure	50	f2
22	Public Buildings	50	f3
23	Agriculture	50	f4



24.	Hierarchy of Public Settlements	53	g1
25	Population-wise hierarchy	53	g2
26	Hierarchy of urban and rural population	53	g3
27	Hierarchy of density	53	g4
28	Basic growth centre	53	h1
29	Hierarchy of marketing centre	53	h2
30	Comparative Indices of infra-structure facilities.	64 <sup>3</sup>	h3
31	Proposed small and medium towns	73	h4

**O.O PREFACE**

Major urban centres of India are expanding at an unprecedented scale due to the rapid industrialisation and urbanisation of the country. Rural population has been migrating to these major urban centres in search of employment opportunity. The physical planning programmes of these urban centres have been unable to cope with the demographic and socio-economic changes in their community structure, thereby creating urban atrophy and pathos leading to an increase of social overheads. This situation demands optimum distribution of population into a hierarchy of urban centres i.e. major, medium, small and further stages upto the primary village level. The urbanisation policy should be framed in a manner so that the small and medium towns can act as growth foci in the process of National development, relieving pressures on major urban centres as also achieving a balanced National development of the country. Therefore it becomes inevitable to work out a strategy for the economic regeneration of medium and small towns in India. The current document is an attempt at testing the aforesaid hypothesis.

## 0.1 INTRODUCTION

### 0.1.0

✓ Predominantly India is a country having a rural base with only 10.0% of its entire population (1971 Census) living in urban areas. With the pace of urban development in the country during the recent decades, a large number of its rural population has started migrating from rural areas towards urban centres. The consequence of such a trend of shifting population in a developing economy is the creation of complex urban development problems due to the lack of a proper and advance planning strategy for the fulfillment of an appropriate living and working environment. In the metropolitan cities of India especially Calcutta/Bombay in particular and other metropolitan areas in general, planned projections and planning has failed to cope with the magnitude of this problem. The result has been a gradual atrophy of the urban centres.

### 0.1.1.

✓ The total urban population of India has increased from 23.00 millions in 1931 to 110 million in 1971, an increase of more than 400 percent. The ratio of urban to rural population was 1:7.0 in 1931; in 1971 Census this ratio increased to 1:0.15 percent of total <sup>urban</sup> population is concentrated in only nine metropolitan cities in the country. The 1971 Census has recorded the urban population of about 11 crores (110 million) in nearly 2,500 towns in the country. The Class I cities constitute 50% of the total urban population and remaining 50% of the urban population is distributed in about 2000 towns of the varying sizes (small and medium)<sup>1</sup>. This revolution pinpoints the

the importance of small and medium towns and the contributory roles they can play, if given a chance, in the overall National Development of India.

#### ✓ 0.1.2

The present unbalanced urbanisation resulting in concentration of population, industrial enterprise and economic activity in a few cities, has retarded the growth of medium and small towns both physically and economically. The result has been the retardation of growth of settlements of a lower order, <sup>a</sup> then the small and medium towns, which in the developmental hierarchy depend on these towns for their growth. Primary order rural settlements with an agrarian base, for their improvement through channels of outlet of their produce, depend upon small and medium towns for marketing, storage and other facilities like the services needed for improving agricultural input practices and agro-based industries as also <sup>a</sup> whole range of small scale and cottage industries.

Thus the crucial role of small and medium towns in a planned urbanising approach will result in minimising the economic and social overheads involved in laying the foundation of improved agriculture practices and efficient industrial base for a developing economy of a country like India.

#### 0.1.3

Since 1947, more than 30 new towns have already been planned and constructed in India. However, the role that new towns have played so far in urbanisation process has been negligible.<sup>2</sup> Most of the new towns were planned as single purpose communities

and majority of these are dependent on a mono-industrial base involving limited sized towns. The new towns plans do not provide space and municipal facilities for supporting non-project population. Even in the planned areas some basic urban amenities i.e. schools, shopping etc. are in short supply.<sup>3</sup> Consequently, these facilities as well as the non-project population tend to be located haphazardly at the periphery. The planned and unplanned communication develop simultaneously, side by side and the management of the new towns does not concern itself with the development beyond their legal boundaries. Besides the rural migration, most of the population in the new cities is attracted from small towns. This immigrant population crowds around these new growth centres, creating an ultimate burden on the envisaged and planned infrastructure of the new towns, which has to be augmented to meet this exigency.<sup>4</sup> The resulting economic layout checks up, for example in steel towns in India, the cost of economic infrastructure varies from 9 to 20% of the total development cost.<sup>4</sup> To provide for a future potential growth of these small and medium towns it becomes essential to study their present economic base. It may not be possible to collect all these towns for location of industries and economic activities. It may, therefore, be necessary to study the cost involved in improvement of the present infrastructure of various small and medium towns, to cope with their anticipated growth.

It may be a possibility and not entirely unreasonable not to make new growth centres in India which will cost more proportionately on infrastructure but to use existing infrastructure facilities of existing small and medium towns, which may possibly solve the

X } problem of unplanned growth to a certain extent as also make possible the balanced growth of their projected population.

#### 0.1.0

The draft Fifth Five-Year Plan (1976-79), Government of India recognises that the growing phenomenon of urbanisation is an inescapable feature of a developing economy. The planned growth of urbanisation and urban development has thus been its objective.

#### 0.1.0.1

The need to provide civic services in urban centres, to make efforts to tackle problems of metropolitan cities on a more comprehensive basis, to promote the development of small and medium towns as new urban centres and to assist in the development areas of National importance, thus become one of the priority targets for the National development of India.

## 0.2 IDENTIFICATION OF THE SUBJECT:

The implementation of the National Urbanisation Policy, enumerated in the preceding sub-chapter 0.1, and urban development programmes to be formulated under the over all context of this policy is a State's subject.

Uttar Pradesh is area-wise the second largest State of India and yet according to the 1961 Census of India, the percentage of its urban population to its total population was only 12.85%<sup>S</sup>

as compared to the National urban population percentage of 18.3%.

The number of towns having a population of 10,000 and above in 1901 was only 109. By 1971 this had gone upto 140. This growth corresponds to an urban population of 93.9 lakhs in 1901 increasing to 123.7 lakhs in 1971. Thus in 1971, the urban population of Uttar Pradesh was only 10% as compared to the corresponding National figure of 19.9% for India, revealing an urbanisation growth potential gap of about 6% to come at parity with the National level of urbanisation.

"It is significant to note that U.P. had only 7 cities with more than one lakh population in 1971 and till 1941, 9 more were added. However, the number increased by 16 in 1951<sup>5</sup> and in 1971 there were 22 cities.

These 22 cities had a concentration of 57.07% of the total urban population of the State as against 52.41% of the total urban population in Class I cities in India.<sup>Sb</sup>

The above disparity reveals the gap in the development of small and medium towns in the State and their consequent lack of contribution to the growth of the State in particular and India in general.

### 0.3 SCOPE OF STUDY:

The present study besides examining the role of small and medium towns, in general for National development of India, will restrict itself to the particular evaluation of the developmental role of small and medium towns in Meerut District of U.P. as a test case. Meerut district enjoys a unique distinction in that its strategic location gives its growth potential a dual role to play - to the National Capital Region to its West on one side and to the Meerut-Bulandshahr sub-region to its South-East on the other side.

An application of findings of this study, can thus serve as a model base in evaluating the role of small and medium towns; firstly at the district level and consequently its proportionate share in hierarchy of National growth.

This thesis will thus investigate in detail the present level of development of the Meerut district with particular reference to small and medium towns; try to evaluate their growth level in the existing settlement hierarchy, if any. The study will thus cover the detailed investigation of their physical, social and economical level of growth and potentialities for future development as a result of the analysis of the investigation is carried out. The recommendations and proposals to be formulated will try to bring a semblance of order by trying to establish a hierarchy of development of these settlements for their particular economic, physical and social regeneration.

### 0.4 METHODOLOGY OF STUDY

The present study is a result of the deep interest of the author in the subject. The author, who started this study while he was



in Netherlands. Chart No.1, on the next page shows the various steps undertaken by the author to conduct this study.

# METHODOLOGY OF STUDY

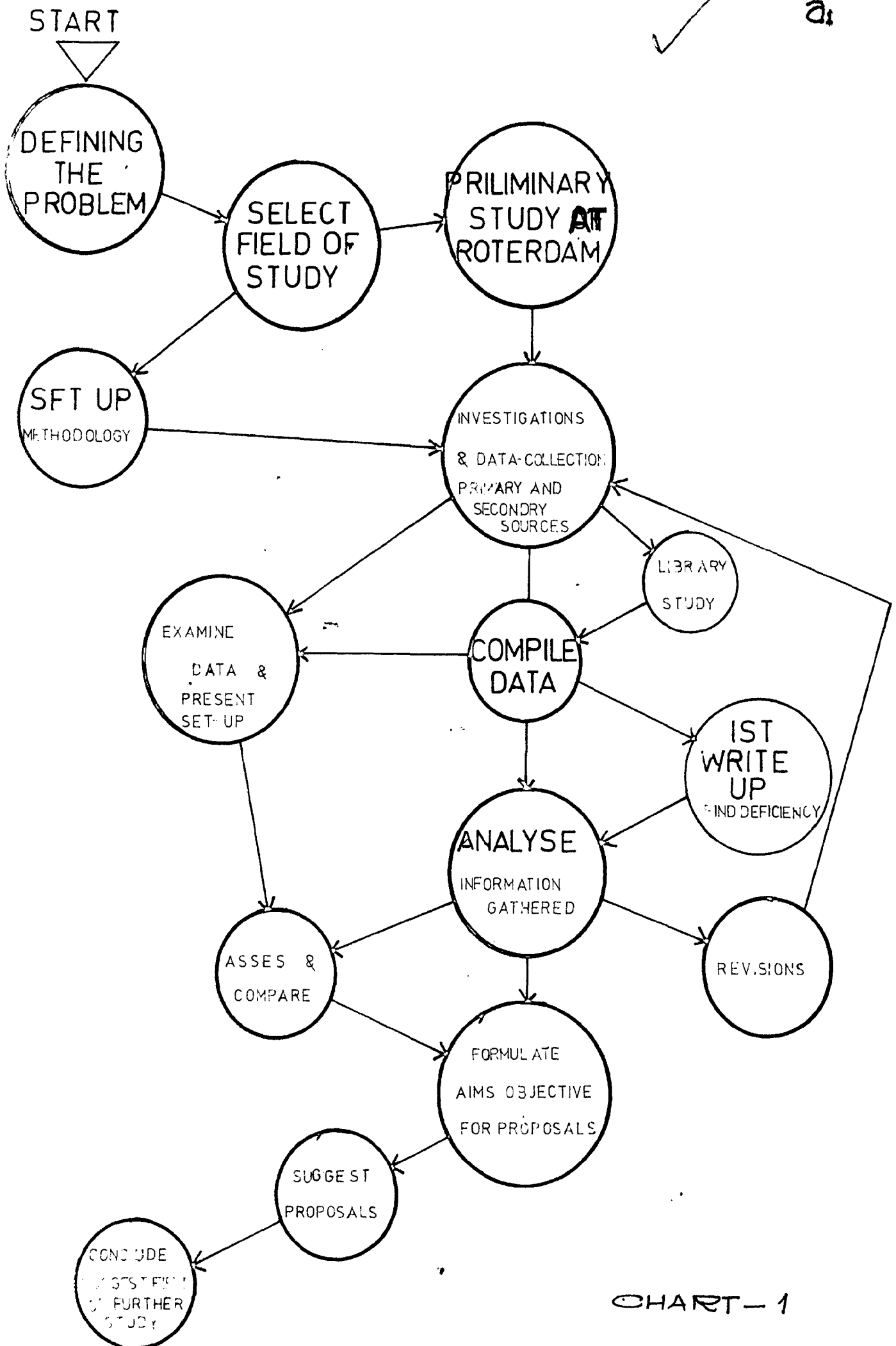


CHART-1

## CHAPTER - ONE

### 1.0 EVOLUTION OF URBANISATION IN INDIA

The evolution of urbanisation in India dates back from a long historical past. In the earlier historical periods, towns were confined mainly to trade routes dealing with agricultural commodities and raw material supplies. Towns in the colonial times were the main centres of urbanisation. Traditionally, in India the cities came up over the years as places of pilgrimages, administrative headquarters, venues of commerce or transport nodes. They played a very significant role in the evolution of a rich cultural life which could be characterised as the urban way of living. With the industrial and technological advancement, urbanisation received a real impetus. Urbanisation is associated with the development of high level of technology, innovation and specialisation - all the key elements in the process of modernisation.<sup>5</sup> In the British rule which brought about many changes and many new urban centres came up. These cities and towns continued to grow at a comparatively faster pace during the last decades. After independence, new centres of industrial activity also sprung up and are in the process of urbanisation.

#### 1.0.1

In India, the pace of urbanisation during the present century has been rather slow from 1901 to 1921 when the proportion of urban to the total population remained constant at 11 percent (Table No.1). However, from 1931 onwards the pace of urbanisation has accelerated. It was only in 1901 that for the first time it was recognised that India was in for urbanisation. The Census

1.0.3

TABLE NO.1TRENDS IN GROWTH OF RURAL AND URBAN POPULATION 1901-71

Source: Census of India 1901-71

Year	In Million	Total Population	Urban Population			Rural Population		
			In Millions	% Vari- ations over the decades	% to total Popula- tion	In Millions	% Vari- ation over the decades	% to total Popula- tion
1901	236.28	-	25.86	-	10.94	210.42	-	89.06
1911	252.12	5.73	26.05	0.75	10.33	226.07	7.44	89.67
1921	251.35	0.31	28.21	8.29	11.22	223.14	1.30	88.78
1931	279.02	11.01	33.66	19.32	12.06	245.36	9.96	87.94
1941	318.70	14.22	44.70	32.80	14.03	274.00	11.67	85.97
1951	316.13	13.31	62.28	39.32	17.24	298.85	9.07	82.76
1961	438.61	21.50	78.84	26.59	18.97	359.77	20.38	82.03
1971	547.37	24.79	108.79	37.98	19.87	433.58	21.79	80.13

1.1.0 NATIONAL POLICY OF URBANISATION

## 1.1.1

In the first Five-Year Plan (1951-56) the emphasis was placed on rehabilitating the National economy from the ravages of war, partition and famine. The Second Five-Year Plan (1956-61) sought to carry the process of rehabilitation of economy further. The Third Five-Year Plan (1961-66) gave a more precise content to the objectives of achieving a socialistic pattern of

✓ CHAPTER - 013

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Commissioner in 1941<sup>6</sup> observed that India had too often been referred to as a land of villages that real dimensions of its urban components were forgotten. The rate he thought was high and was in itself increasing and it was time magnitude was realized and attention was paid to the emerging problems. The urban population as a percentage to total population in 1941, was 14 as against 12.1 ten years back.<sup>7</sup> In 1951, this proportion has shot up to 17.24%. In 1961, there had been a setback to this rising trend and proportion was about 18 percent. This drop in the rate of increase might perhaps be partly due to the revised definition of urban areas adopted in 1961. According to 1971 Census, this proportion works to 19.87 percent.

#### 1.0.2

India is today the second most populated country in the world with an estimated population of 586 million. By 2001 A.D. its population is expected to reach about 945 million. Urban population in India has grown considerably in the recent decades. It increased from 34 million in 1931 to 110 million in 1971, which is three fold increase in the span of four decades. In 1974, urban population is estimated at about 120 million which is expected to reach over 278 million by 2001.<sup>8</sup> The significance of Urban India today can be understood from the fact that its urban population ranks to be the third largest in the world next only to urban U.S.A. and urban U.S.S.R.

1.0.3

TABLE NO.1TRENDS IN GROWTH OF RURAL AND URBAN POPULATION 1901-71

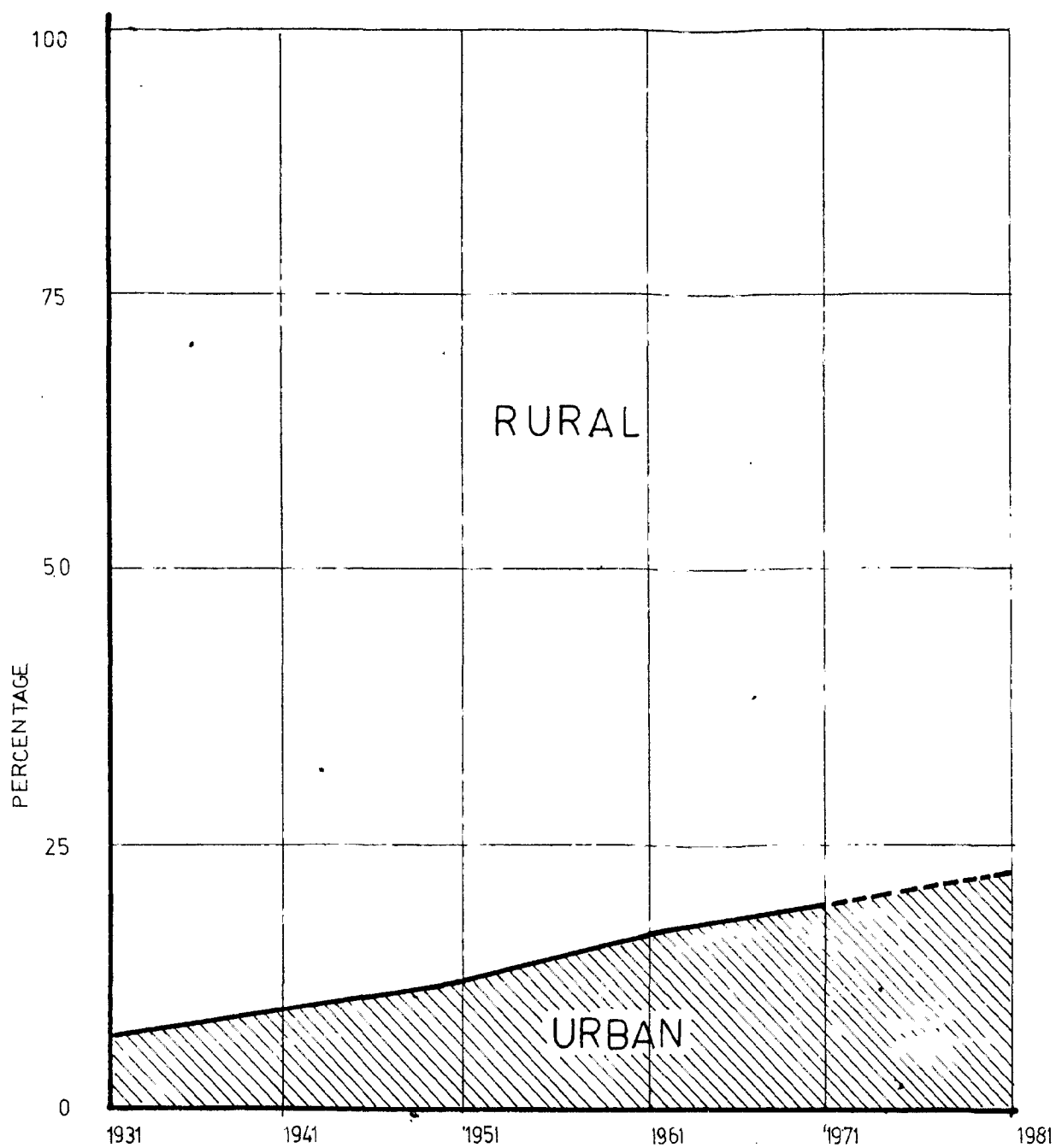
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# INDIA URBAN CONTENT

(1931 - 1981)

CHART-2A.



society.

1.1.2

The Third Five-Year plan specifically provided for undertaking the preparation of master plans for practically all the major cities and their surrounding areas including industrial centres and also some of the important rapidly growing regions. The Fourth Five-Year Plan reiterated the need for the balanced spatial distribution of economic activities. The plan laid emphasis on the need to prevent unrestricted growth of metropolitan cities and recommended a regional approach to the problem of urban development. It also stressed the need for a national urban land policy. The Fifth Five-Year Plan<sup>9</sup> (1974-79) envisages the following objectives for urbanisation and urban development.

- (a) To augment civic services in urban centres as far as possible and to make them fit for a reasonable level of living.
- (b) To make efforts to tackle the problems of metropolitan cities on a more comprehensive and regional basis.
- (c) To promote the development of smaller towns and new urban centres to ease the pressure of increasing urbanisation.
- (d) To assist in the implementation of projects of national importance such as those related to metropolitan cities or inter-state projects.
- (e) To provide necessary support for the enlargement of the scope and functions of the industrial townships undertaken by the Central Government undertakings so as to make them

self-contained.

### 1.1.3. OBJECTIVES OF THE NATIONAL URBANISATION POLICY

The National urbanisation policy should have the following objectives to serve National ends.<sup>10</sup>

- (a) Evolving a spatial pattern of economic development based on regional planning and location of a hierarchy of human settlements consistent with the exploitation of the natural resources in the region, and ensuring functional linkage.
- (b) Securing the optimum distribution of population between rural and urban settlements within each region on both the long-term and the short-term perspectives and also among the towns of various sizes.
- (c) Securing the distribution of economic activities in small and medium size towns and in new growth centres in order to induce the desired population distribution and achieve maximum economic growth for the future.
- (d) Controlling and where necessary, arresting the further growth of metropolitan cities by dispersal of economic activities, legislative measures and establishment of new counter-magnets in the region to reduce social and economic costs and to improve the level of living.
- (e) Providing minimum level of services for improving the quality of life in rural and urban areas and gradually reducing the differences between the rural and urban life.

### 1.2.0 FUTURE URBANISATION TRENDS

According to the estimates made in planning Commission in 1968, the urban population is expected to increase to about 152 million by 1981, constituting about 22 percent of the Country's total population. Kingsley Davis<sup>11</sup> estimates that by the year 2000, about 31% of the total population will be residing in places of more than, 20,000 persons and one-fifth in towns with over one lakh persons. "A better comprehension of the magnitude of this additional population may be had from the fact that what India added to its urban population in the last 20 years would accrue to it in only next ten years. Another comparison may be that in the next twenty years, the increase in urban population would be more than twice the present population of Philippines or Thailand or more than one and a half times of the present population of Great Britain."<sup>12</sup> The fact that India has been urbanising fast enough is not something unique or unanticipated. The trend towards urbanisation is universal, the forces making for it its pace being exist in modern technological development. The long-term perspective outlined in the National plans envisages a decrease in the relative proportions of workers in the primary and increase in that of secondary and tertiary sectors (Table No.9). Considerable urbanisation potential underlines such a transformation of the occupational structure. Therefore, it is quite important that when an economy develops whether in a planned or an unplanned manner, urbanisation is inevitable. Therefore, a positive and purposeful attitude towards urbanisation is very necessary. In the absence of a such an attitude the urban problem is never seen in

its proper context nor are timely steps taken to prepare the urban areas to cope up with strains and stresses, inevitable.

### 1.2.1.

Urban population growing through migration from the rural areas amounts to a transfer of rural poverty and unemployment to the urban centres which themselves were not too well off. The process is made worse because while it drains the rural areas of relatively more enterprising and aspiring persons, particularly youngmen, it accentuates urban unemployment, aggravates the housing deficits and strains the civic services to the disadvantage of both the original city dwellers as well as the fresh migrants.

The strengthening of economic base and creation of jobs or improvement of living conditions in urban areas call for a huge investment outlays. A good approach, therefore, to relate investment decisions with an urbanisation process. Instead of either over-concentrating or scattering the investment over a space, a suitable number of small and medium towns and cities possessing the minimum requisite infra-structure may be identified as regional growth points. This would channelise a balanced urbanisation process and urban development as well as national economic growth.

CHAPTER - TWO2.0 HIERARCHY OF URBAN CENTRES ✓

## 2.0.1

As per Census, urban centres are classified into six categories by size of population. The large size towns of Class I category with 100,000 and above population are generally referred to as cities. The urban character of towns having more than 20,000 population to 100,000 are classified as medium towns. The Census towns of Class IV category may not be industrial, they are at least small commercial centres dealing in agricultural products of different kinds. The towns having less than 20,000 population are classified as small towns.

## 2.0.2

TABLE - 3  
CLASSIFICATION OF TOWNS ✓

Source: Census of India-1971.

Classification	Census Status
Class I cities or large towns	100,000 and above
Class II ) Class III )	Medium towns 50,000 to 100,000 20,000 to 50,000
Class IV ) Class V ) Class VI )	Small towns 10,000 to 20,000 5,000 to 10,000 Below 5,000

2.1.

As per Census report, the town means any corporation, municipality, notified area, cantonment and includes a locality which, though not in itself a local body is a part of a town group, and also any place which has,

- (a) a population of at least 5000;
- (b) at least three-fourth of the population dependant on non-agricultural means of livelihood and
- (c) a density of at least 1,000 persons per square mile.

City means a town or a town group having a population of one lakh and above.<sup>13</sup>

2.2. GROWTH OF URBAN CENTRES AND POPULATION

2.2.0

TABLE - 4

(Population in Lakhs) Source: Census of India -71<sup>14</sup>

Year	'Large cities 'above 500,000'		'Large towns '100,000 to 500,000'		'Medium towns '20,000 to 1 lac'		'Small Towns 'Below 20,000'		'Total 'Urban	
	'Towns	'Pop.	'Towns	'Pop.	'Towns	'Pop.	'Towns	'Pop.	'Towns	'Pop.
1941	6	67.4	49	92.6	344	128.7	1927	152.8	2326	441.
1951	9	126.2	72	138.1	455	171.8	1388	189.4	2924	624.
1961	13	189.1	100	192.9	622	240.1	1727	167.4	2462	789.
1971	19	341.0	127	269.9	768	234.5	1726	185.4	2641	1090.

The table above gives growth of urban centres and population by size.

2.2.1

The above table reveals that number of towns has not increased with

the same rate as population. In 1971 more population was concentrated in fewer urban centres. The decline of towns in 1961 is due to the adoption of improved definition of a town.

### 2.2.2

It may be seen that number of large cities has gone up from 6 in 1941 to 19 in 1971. In 1941, Bombay and Calcutta were only two cities within million plus population. Four cities of Delhi, Madras, Hyderabad and Ahmedabad had population between 0.5 million to 1 million each. At present 9 cities i.e. Calcutta, Bombay, Delhi, Madras, Hyderabad, Ahmedabad, Bangalore, Kanpur and Poona have population of more than one million each. It is significant to note that large cities have recorded five fold increase in population during the last three decades. The increase during last decade was a little less than two-folds (from 18.9 million in 1961 to 30.1 in 1971).

### 2.2.3

The situation in respect of medium and small towns is quite different. The growth in number and population of medium towns is comparatively significant while the small towns have shown almost no increase in their number and population.

These facts reveal that the medium and small towns are losing their importance. The large towns are gaining in population (Chart No. 2B)

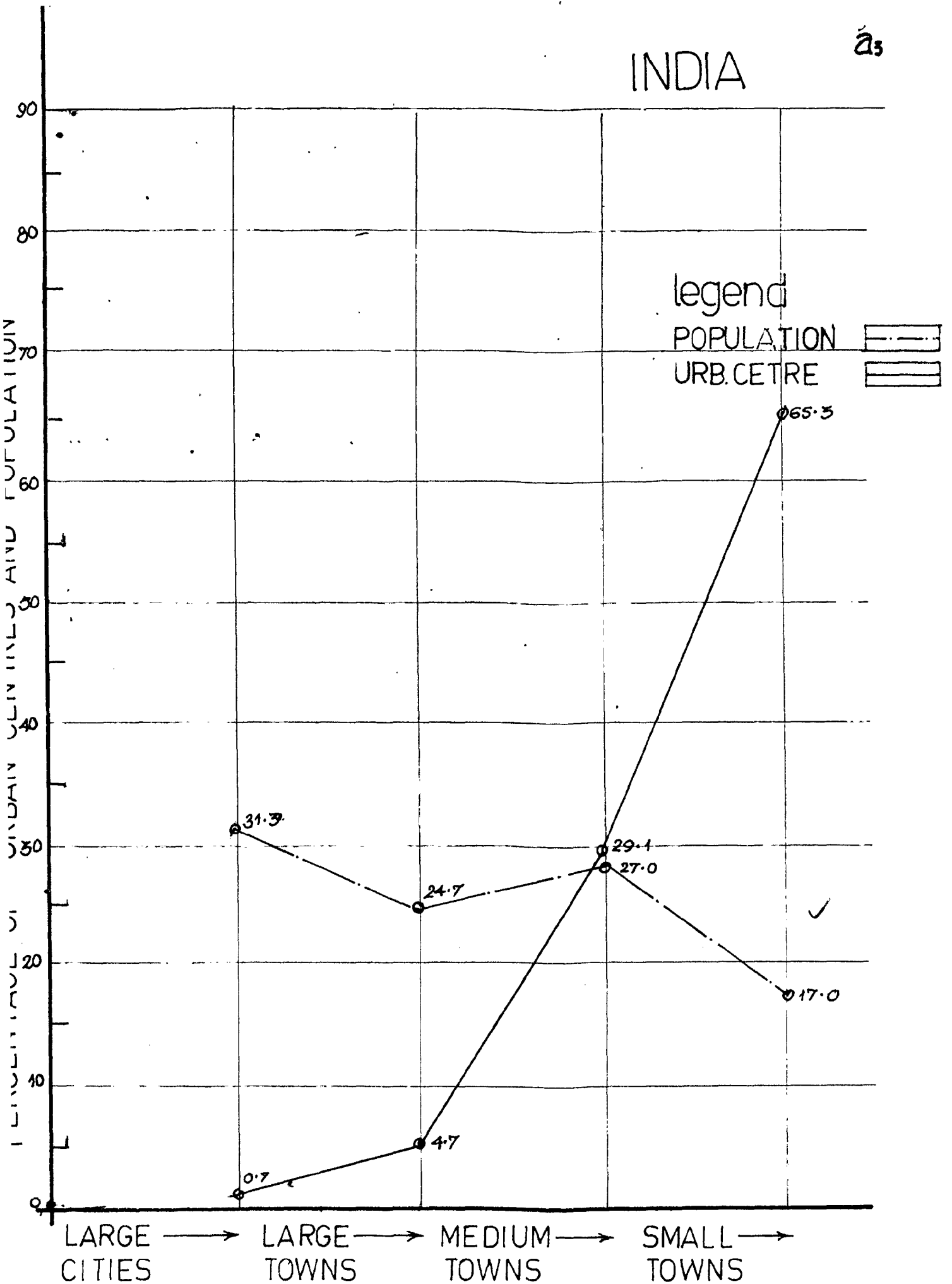
## 2.3. DISTRIBUTION OF POPULATION IN URBAN CENTRES

### 2.3.0.

The following table No.5 reflects that most of the population is concentrated in large cities and large towns. The medium and small towns though larger in number accounts for less than half of the total population. Until 1961, the larger cities

# INDIA

23



TYPE OF TOWN

CHART-28



and towns shared less than half of the total urban population. In 1971, it has crossed the 50% mark. A very low proportion of urban centres in large cities and towns is sharing the major urban population. 56% of urban population is living in large cities and towns which form only 5.4% of total number of centres. The medium and small towns forming 94.4% of total urban centres accommodates only 44% of total urban population.

2.3.1 (TABLE - 5)<sup>15</sup>

DISTRIBUTION OF POPULATION IN URBAN CENTRES BY SIZE (%)

Source: Census of India-1971.

Year	Large cities		Large towns		Medium towns		Small towns	
	'Urban centres'	'Pop.'	'Urban Centres'	'Pop.'	'Urban Centres'	'Pop.'	'Urban Centres'	'Pop.'
1.	2.	3.	4.	5.	6.	7.	8.	9.
1941	0.3	15.2	2.1	21.0	14.8	29.1	82.8	34.7
1951	0.3	20.2	2.5	22.1	15.5	27.5	81.7	30.2
1961	0.5	23.9	4.1	24.4	25.3	30.4	80.1	21.3
1971	0.7	31.3	4.7	24.7	29.1	27.0	65.3	17.0

2.4 DECENNIAL VARIATION IN POPULATION

2.4.0

The annual rate of growth of urban population is 3.8% per annum compared to 2.5 for the country as a whole. The urban population is growing at a faster rate than the rural population. It is pertinent to compare the average growth with different size of towns. The table below gives percentage decades variation for

preceding three decades and how it compares with different size of urban centres. The table also reveals higher decennial growth rate in large cities and large towns compared to India's average urban growth. During 1961-71, large cities have recorded decennial growth rate of 80.4 compared to India's average growth rate of 38.2 which is more than double the average urban growth while the growth rate of medium and small towns is even lower than the total growth rate of the country.

2.4.1. TABLE - 6  
DECENNIAL VARIATION IN POPULATION OF URBAN CENTRES <sup>16</sup> ✓  
 (By size)

Year	<u>% Decade variation (urban)</u>							
	Total Urban	Large cities above 500,000	Large towns above 50,000	Class I Col. 4+5	Medium Towns	Small Towns		
	1	2	3	4	5	6	7	8
1941-51	13.3	41.4	87.2	49.1	65.1	33.5		23.3
1951-61	21.6	26.4	49.9	39.6	44.5	39.8	(-)	11.1
1961-71	24.8	38.2	80.4	40.1	60.0	22.66		10.8
1941-51	8.7	8.7	33.2	--	84.5	84.5		10.5
1951-61	24.2	24.2	47.7	--	73.5	73.5		32.2
1961-71	28.7	28.7	46.6	--	69.1	69.1		13.5

2.5. URBAN CONTENT ✓

2.5.0

India occupies a fairly low position in the degree of urbanisation which is about 20%. As compared to this proportion of urban

population in other countries is U.K. 78.9%, Canada 73.6%, France 70% U.S.A. 69.90%, Japan 68.1%, U.S.S.R. 55.6% and U.A.R. 41.6%. India recorded an absolute increase of 30.2 million in urban population 1961-71 which is nearer to the total urban population of U.K. and France and 2 to 3 times the urban population of Canada, U.A.R.<sup>16</sup> (Chart No.3)

2.5.1 The data on proportion of urban population to total population, urban-rural ratio and urban content per 100 population is tabulated in the following table.

(TABLE - 7)<sup>17</sup>

URBAN CONTENT & URBAN RURAL RATIO

Year	'% of urban population to total population'	'Urban/Rural Ratio'	'Urban content per 1000 population'
1941	13.86	1.6	139
1951	17.58	1.5	176
1961	17.98	1.5	180
1971	19.91	1.4	199

2.6. MIGRATION

The relative faster growth of urban population cannot be explained either by the vital process of births and deaths or by the expansion of the urban boundaries or by non-urban areas achieving urban status. Rural to urban population redistribution or "net migration" into urban areas has played a very significant role in urban population growth. According to National Sample

Survey<sup>19</sup> in its 18th round, 1963-64, that internal migration to urban areas 50% came from rural areas and 41% belong to urban areas. It is further estimated that during the year of Survey 1.07 million persons came from the rural to urban areas whereas 0.45 million persons emigrated from urban to rural areas. Thus the urban sector had a net gain of 0.62 million due to population redistribution within one year.

2.7.

Table 0 gives categorical percentage distribution of worker in nine industrial categories in cities and towns of various population sizes. The table highlights the predominance of the tertiary sector consisting of trade and commerce, transport and communication and services. Even in cities of more than one million population this sector accounted for about 62% of Mexico as against 35% in the secondary sector consisting of household and manufacturing industries. Small towns having distribution of workers in agriculture, trade, services mostly.



2.8.0.

A penetrating analysis of economic structure of cities and towns has been made by Shri Ashok Mitra<sup>19</sup> who has classified 2462 cities and towns into three broad functional categories, namely, industrial, trade and transport and service. Of the total number of towns analysed 977 or less than 40% are industrial towns. Among the industrial towns themselves only 374 are manufacturing towns and the rest 496 are artisan, 83 mining and plantation and 24 are construction towns. Even amongst the Class I cities 49 are manufacturing towns and proportion of workers engaged in industry being more than 50%. But in small towns, service sectors still predominate.



**SECTORAL COMPOSITION OF DISTRICT INCOME  
PERCENTAGE OF INCOME ORIGINATING FROM**

State	District	Agri- culture	Manu- facture	Services	All Sectors	Per capita income (Rs.)
A.P.	Guntur	61.03	14.90	24.07	100	336
Assam	Lakhimpur	41.66	46.78	11.56	100	452
Bihar	Champaran	75.88	6.44	17.68	100	133
Gujrat	Junagarh	43.18	11.98	44.84	100	265
Haryana	Karna	60.12	5.71	34.17	100	266
Kerala	Trivandrum	43.64	19.25	35.11	100	297
M.P.	Sehore	49.12	13.85	37.03	100	269
Maharashtra	Parbani	51.63	8.97	39.58	100	202
Meghalaya	United K & Jhills	41.20	7.47	51.23	100	227
Mysore	Chitradurga	58.53	13.84	27.64	100	178
Orissa	Ganjan	36.98	8.16	52.86	100	207
Punjab	Ropar	N.A.	N.A.	N.A.	N.A.	N.A.
Rajasthan	Bilhwara	50.76	18.54	30.70	100	191
Tamil Nadu	Salem	49.65	20.42	29.93	100	173
U.P.	Sultanpur	57.09	6.09	36.82	100	129
West Bengal	Burdwan	33.44	43.42	23.14	100	323



## 2.9.1.

National income derived from agriculture is 44.1% and for manufacturing industries 23.2%, from trade and communication (services) is 33.7%. A factor strikes from Table No.10 is that larger service sector income in these small towns compared with manufacturing income. Therefore, these small towns can be developed as service towns based on the agricultural products. Therefore, if the rural areas are to be revitalized and occupation structure to be diversified, the manufacturing activities based on agricultural products should be infused in these small towns which will act as service towns for these villages i.e. agro-based industries such as fibre-board industries, sugar cane crushers and mills, flour grinding mills, storage facilities, household manufacturing industries based on local material available, cowdung gas plants (which is very important indigenous product available in the villages).

## 2.9.2.

Towns offer many services to the surrounding hinterland. Distribution of towns can to some extent give some indication of the stage of development. Not only the towns offer social facilities but they are also the centres in which farmers can sell their produce and if a good market develops it gives them incentive to produce more and better quality products. They can be avoided by the exploitation of local traders. They can also purchase their specialised requirements and get credit facilities in such towns. According to 1961 Census, there are 5,67,338 villages and 2700 cities and towns leaving aside too large ones and those near to each other and also single industry towns

and ports etc. It is estimated that there are 292 villages to one market town. The related dependence of a village community on a large trading centre is a measure of the degree of a community's integration with a large economic system. Considering villages located at 3 mile intervals and taking area within 12 miles radius as the area effectively linked by transport to one town (being accessible to a village within a day's return) a market town would seem to be necessary for every 40 to 45 villages. On this basis some 12,500 to 14,000 market towns should be needed for the country.

#### 2.10.0 CAUSES OF LOW RATE OF GROWTH OF SMALL & MEDIUM TOWNS

##### 2.10.1

Poor accessibility and lack of regional linkages - Communication both road and rail particularly broad gauge line play an important part in growth of urban centre. Almost all the metropolitan cities or large cities have grown to their present size owing to effective communication system.

##### 2.10.2

Lack of information - Many of the small and medium towns have potentialities for developing owing to the local resources, possibilities of provision of proper urban infra-structure, regional and local skill etc.

##### 2.10.3

Weak, ineffective local administration - Economically and administratively the local administration in such towns is generally weak and there is often lack of enthusiasm to plan and to

undertake new developments. These towns, therefore, suffer on this account as well.

2.10.4

Low economic returns - Location of industries or economic activities in small towns or backward areas do not produce same profits as in bigger cities. Industrialists are, therefore, not attracted to these places under such circumstances. The Government now recently started to give certain incentives for location of industries in such places.

CHAPTER - THREE3.0 CASE STUDY (Meerut District)

## 3.0.1

Meerut district occupies the 18th position in area and the 1st position in population in U.P. State. The area of the district is 6,016.9 sq.km. It is situated in the upper Ganga Yamuna Doab. The Ganga forms its eastern boundary separating it from Bijnor and Moradabad districts while the Yamuna forms its western boundary separating it from the Union Territory of Delhi and district Karnal of Punjab State. On the north it is bounded by the district of Musaffarnagar and on the south by the district of Bulandshahr. The district comprises six tehsils - Bagpat, Ghaziabad, Sardhana, Meerut, Mawana and Hapur.<sup>23</sup> The largest tehsil in area is Ghaziabad 1195.6 Sq.Km. and the smallest Meerut 710.0 Sq.Km. The remaining tehsils in descending order of area are Mawana 1123.6 Sq.Km., Hapur 1092.2 Sq.Km., Bagpat 1046.6 Sq.Km. and Sardhana 889.3 Sq.Km. The number of towns are 15, Meerut M.B. and Bagpat N.A. in tehsil Bagpat, Ghaziabad M.B., Railway Colony, Modinagar T.A., Palkhova M.B., Haridwar T.A. and Faridnagar T.A. in tehsil Ghaziabad, Sardhana H.A. in tehsil Sardhana, Meerut M.B. and Malayana, Meerut Cantt. & Kankar-Khera T.A. in Meerut tehsil, Mawana M.B. and Shahjahanpur in Mawana tehsil and Hapur M.B. and Gushmaitbechwar T.A. in Hapur tehsil. Fourteen towns Khakra, Chhaprauli, Kithore, Lavar, Pholanda, Parichhatgarh, Darula, Tatiri, Kharhanda, Aminnagar Saraf, Abdullipur, Darna, Baktar Khara and Debugarh have not been treated as urban centers in 1961 for non-fulfilment of urban

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M.B. = Municipal Board, T.A. = Town Area, N.A. = Notified Area

conditions but in 1971 new towns i.e. Muradnagar Ordianance Factory, Aminnagar, Kaila, Roshanpur have been added which are numbered total ninteen in all.

3.0.2

There has been an increase in population since 1931, the increase being the highest during the decade 1941-51. During 1951-61, it rose by 431,743 giving a percentage increase of 18.9% higher than the State average of 16.7%. The order of tehsils by population in 1951 was Meerut, Ghaziabad, Bagpat, Hapur, Sardhana and Mawana. In 1961 and 1971 the order of tehsils by population has remained unchanged. The largest population growth during the last decade has, however, been in tahsil Ghaziabad amounting to 24.6 percent. The percentage increase in the other tehsils, Meerut, Sardhana, Bagpat, Hapur and Mawana is 20.6, 18.6, 17.3, 15.4 and 14.9 respectively.

3.0.3

TABLE 10<sup>25</sup>  
(1975)

DECENNIAL INCREASE IN POPULATION & RATE OF POPULATION GROWTH

Source: (District Census Handbook 1961)

District	Decades			
	1931-41	1941-51	1951-61	1961-71
Meerut District (Population in lakhs.)	18.96	22.81	27.13	33.45
(Rate of Growth in percentage)	18.39	20.28	18.93	23.39

**3.1 HIERARCHY OF URBAN CENTRE AT MEERUT DISTRICT**

**3.1.1**

The urban population of the district (5,38,794) is spread over in 19 towns which are classified in five classes (Table No.11). Class I towns accommodate more than 45 percent of the total urban population. This is followed by Class III towns having 18.3 percent of urban population against Class II towns having only 16.5 percent of the total urban population. The rapid growth of Class I towns has restricted the growth of the other urban centres. A large number of medium towns in Class III range are developing in the Meerut District. While a large number of small and medium towns are not developing. While population growth of large towns have increased by 45%, population growth of small and medium towns increased by 1.1 percent to 8 percent during the last one decade (1961-1971) (Chart No.4)

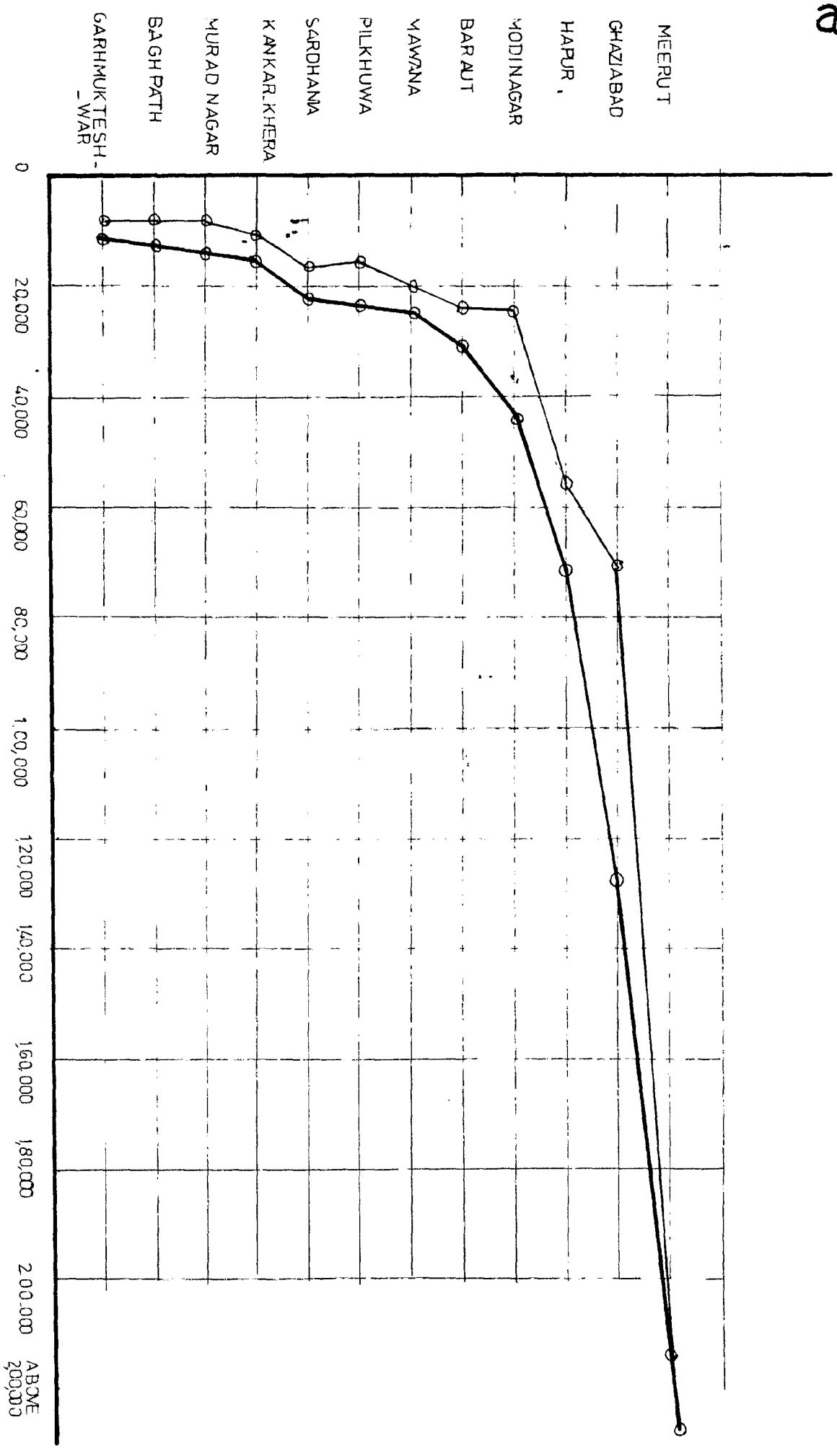
3.1.2.

TABLE NO. 11RANKING OF TOWNS, PERCENTAGE VARIATION IN TOWN-WISE AND DISTRICT-WISE POPULATION, NEERUT, 1971.

Source: District Hand Book-61

Towns	Towns Status	Population size	Population		Population variation 1961-71	Percentage of urban pop. to total Dis urban pop.		
			1961	1971		1961	1971	
1	2	3	3	4	5	6	7	8
Meerut	I	Above 1,00,000	2,83,997	3,67,622	+83,625	51.2	45.0	
Ghaziabad	I	-do-	70,438	1,28,110	+57,672	12.5	15.6	
Hapur	II	50,000 to 99,999	55,248	71,255	+15,907	9.8	8.6	
Modinagar	III	20,000 to 49,999	24,266	43,488	+19,222	4.3	5.3	
Baraut	III	-do-	22,818	31,200	+ 8,382	4.1	3.8	
Mawana	III	-do-	20,677	24,811	+ 4,134	3.6	3.1	
Pilkhawa	III	-do-	16,025	23,950	+ 7,925	2.8	2.9	
Sardhana	III	-do-	16,563	22,011	+ 5,448	3.0	2.7	
Kankar Khera	IV	10,000 to 19,999	10,856	15,322	+ 4,466	2.0	1.9	
Miradnagar	IV	-do-	8,258	13,977	+ 5,719	1.4	1.7	
Baghpat	IV	-do-	8,437	11,661	+ 3,224	1.5	1.5	
Garhmukteshwar	IV	-do-	8,717	10,840	+ 2,123	1.6	1.4	
Kailla	V	5000 to 9,999	9,311					1.2
Ordinance Factory Moradnagar	V	-do-		9,311				1.1
Hastinapur	V	-do-		8,776				1.1
Faridnagar	V	-do-		7,443			1.1	0.9
Shahjahanpur	V	-do-		7,289			1.1	0.9
Aminnagar	V	-do-		5,539				0.8

MEERUT DISTRICT



POPULATION

CHART - 3



### 3.2 RURAL AND URBAN POPULATION AT TEHSIL LEVEL AT MEERUT

#### 3.2.0

The Table No.12 reveals that in every tehsil rural population is higher than urban population except in Meerut tehsil. Meerut tehsil has 50.4 percent urban population.<sup>26</sup> In respect of the percentage of urban population, to the total population, Meerut and Ghaziabad tehsils in Meerut district have a higher rate of urbanisation. The tehsil which has registered a decreasing rate of growth since 1961 is Hapur. The towns in the Hapur tehsil (Hapur M.B. & Gurhmukteshwar T.A.) have also shown decreasing rate of growth.

#### 3.2.1.

**TABLE NO.12**  
**RURAL & URBAN POPULATION AT TEHSIL LEVEL**  
**MEERUT DISTRICT 1971**

Source: District Hand Book 1961

District	Tehsil	Total pop. '1961 (in lakhs)	%age of 'urban pop. to total pop. in '61	Total Pop. '1971 (in lakhs)	Area in Sq. Km. (1971)	Density Per Sq. Km. (1971)
Meerut		27.13	20.66	33.45	5,845.8	556
	Bagpat	4.9	6.4	5.87	1,044.61	564
	Ghaziabad	5.3	23.6	6.72	1,155.6	582
	Sardhana	3.6	4.6	4.32	714.8	608
	Meerut	5.7	50.4	7.37	714.8	1034
	Mawana	3.2	8.40	3.90	1,123.8	346
	Hapur	4.3	14.9	5.27	1,099 <sup>2</sup> / <sub>2</sub>	483

### 3.3 DENSITY

#### 3.3.0

The density of population in the district is 556 persons per Sq.Km. which is higher than the State average of 250 persons per Sq.Km. The most densely populated tehsil is Meerut, the density being 1034 persons per Sq.Km. Next comes Sardhana having a density of 608 persons per Sq.Km., Ghaziabad 582 persons per Sq.Km., Hapur 483 persons per Sq.Km. The highest urban density is in tehsil Sardhana 49,192 persons per sq.Km. and highest rural density is in tehsil Baghpat which is 444 persons per Sq.Km.

#### 3.3.1

#### TABLE NO.12

#### HIERARCHICAL STATUS OF THE TOWNS ACCORDING TO THE DENSITY

Source: District Hand Book-1961

S.No. X	Towns	X Density	X Hierarchical Status
1.	Sardhana	49,192	1st
2.	Faridnagar T.A.	41,800	2nd
3.	Meerut M.B.	37,612	3rd
4.	Hapur M.B.	24,555	4th
5.	Mawana M.B.	20,677	5th
6.	Ghaziabad	14,695	6th
7.	Filkhua	9,157	7th
8.	Muradnagar	8,258	8th
9.	Baghpat	7,601	9th
10.	Baraut	5,705	11th
11.	Modinagar T.A.	6,067	10th
12.	Shahjahanpur	2,690	12th
13.	Garh Mukteshwar	872	13th

## 3.4:

The sex ratio in the district was 851 for 1921, 839 for 1931, 848 for 1941 and 837 for 1951. In 1961, the number of females for 1000 males in this district was 843 which is lower than the sex ratio of 909 in the State. The corresponding rural and urban sex ratios for the district are 853 and 805 respectively. The rural sex ratio in tehsile is 854 in Baghat, 848 in Ghaziabad, 844 in Meerut, 846 in Mawana and 872 in Hapur. The sex ratio in the towns is 802 in Meerut town group, 805 in Ghaziabad M.B., 847 in Hapur M.B., 635 in Modinagar T.A., 760 in Baraut M.B., 834 in Mawana M.B., 869 in Sardhana, 838 in Pilkhuwa M.B., 848 in Kenkar Khara T.A., 808 in Gurhmukteshwar T.A., 842 in Baghat N.A., 874 in Modinagar T.A., 882 in Faridabad T.A. and 852 in Shahjanspur.<sup>27</sup>

3.5 MIGRATION

## 3.5.0

Among the people enumerated in the district 87.0 percent were born within district, 6.5 percent in other district of the State, 2.9 percent in other parts of India and 1.5 percent in other parts of the country. Among those from other countries, there are 37,552 from Pakistan who are mostly displaced persons. The duration of immigrants is over 10 years. The rural area returned 75.6 percent immigrants and remaining 24.4 percent were returned from urban. 30.4 percent of the immigrants are males and 6.6 percent females. The percentage of workers and non-workers is 32.6 and 67.4 percent respectively. Among workers 32.6 percent work at household industries and other manufacturing jointly claiming 32.6 percent followed by other services 31.5 percent, cultivators and agricultural

labourers 21.2 percent and trade and commerce 9.0 percent.<sup>28</sup>  
 In other categories the number of workers is small, altogether amounting to 5.7 percent. The maximum migration is from rural areas to major urban areas.

3.5.1.

TABLE NO. 14MIGRANTS TO MEERUT ACCORDING TO VARIOUS TRACTS, 1961

Source: District Hand Book Census-61

S.No.	Tracts	Meerut District		REMARKS
		No. of Migrants	% of total migrants	
1.	Rural to Urban	1,53,352	43.70	
2.	Urban to Rural	23,770	6.70	Total migration in the District is 8.5%
3.	Rural to Urban	67,805	19.42	
4.	Urban to Urban	63,200	18.00	
5.	Unclassified	289	0.08	
6.	International areas	42,452	12.10	
TOTAL		3,50,868	100.00	

3.5.2

The number of migrants to the rural areas is mostly due to marriages outside the district. But migration to urban areas is mostly job oriented. Among the migrants female population constitutes about 78 percent and this is largely due to marriages. Male migrants predominates in the urban areas. The number of female migrants per thousand males is 2460.

### 3.6. ECONOMIC GROWTH RATE

#### 3.6.1.

Workers: The population of district is distributed between workers and non-workers 33.2:66.8.<sup>29</sup> The corresponding distribution of workers and non-workers for State is 39.1:60.9. Among workers 45.2 percent work as cultivators and agricultural labourers. Next come Household industry and other manufacturing jointly claiming for 22.7 percent followed by other services claiming for 21.2 percent and trade and commerce 6.5 percent. In other categories the number of workers is small of about 4.4 percent. Percentage of female workers is only 12.5. The extent of female participation in non-agricultural activities is higher than in agricultural activities, the latter accounting for 30.7 percent against 6.3 percent by the former.

#### 3.6.2.

#### TABLE NO.15

#### PERCENTAGE DISTRIBUTION OF WORKING FORCE IN CLASS SIZE TOWN: MEERUT

Source: District Hand Book Census-61

Classification of towns	% of total Pop.	Workers engaged in different sectors of eco.		
		Primary Sector % of workers in Primary sector	Secondary Sector % of total wor- kers in Secondary sector.	Tertiary Sect % of total workers in Tertiary se
I Class Towns	30.4	3.7	26.7	57.6
II Class "	27.9	5.1	29.6	65.3
III Class "	30.5	9.1	34.8	50.1
IV Class "	30.2	17.1	31.7	51.2
V Class "	31.9	20.4	29.3	50.3

## 3.6.3.

Table No.15 reveals that participation ratio of workers in most categories of towns is about 30 percent. It is highest in the Class V towns (31.9 percent) but lowest in Class II towns (27.9 percent). Primary sector dominates more in the Class IV and V towns (17.1 and 20.40 percent respectively). Secondary sector dominates in Class I and III towns (38.7 and 34.8 percent respectively)

## 3.6.4

Table No.16<sup>A</sup> reveals that tertiary sector is the most developed sector in Hapur, Meerut and Ghaziabad. These towns are either centres of district or tehsil administration. These are important agricultural mandies and as such perform trading and commercial functions for the agricultural produce of the surrounding areas and are important urban areas of the district on which economic growth of the district is dependent. Ghaziabad town too, inspite of the growth of industries, is primarily a centre of commercial, Government and professional services. The highest ratio of workers to total population is 38.2% in Modinagar town. The town also shows the largest proportion of workers (75.40 percent) engaged in household and manufacturing industries in secondary sector of economy. In Ghaziabad town the percentage of industrial working force is 35.10 percent to the total working force. At present Ghaziabad and Modinagar are the two highly industrialised towns in the district.

3.6.5.

TABLE NO.16AECONOMIC CHARACTERISTICS OF TOWNS IN MEERUT DISTT.

Source: Based on the Survey by  
Town & Country Planning  
Office.

Towns	Total Workers	% of workersto total pop.	Working Force		
			% in Primary Sector	% in Secondary Sector	% in Tertiary Sector
1. Meerut	86,358	30.40	3.70	<u>28.70</u>	67.60
2. Ghaziabad	<u>19,375</u>	28.10	2.50	35.10	62.40
3. Hapur	15,306	27.70	8.40	22.70	68.90
4. Modinagar	9,278	38.20	0.40	75.40	24.20

3.6.5

TABLE NO.16BPARTICIPATION IN INDUSTRIAL PURSUITS (URBAN AREAS)

Source: Town & Country Planning  
Office, Meerut.

Range of Participation Rate	Names of Towns	No. of Towns	Type
1-15%	Meerut, Ghaziabad, Hapur, Baraut, Modi- Nagar, Mawana, Kankar Khera, Bagpat, Garhmukteshwar	9	Household industry
16-30%	Pilkhuwa, Sardhana, Miradnagar, Shahjahanpur	4	
Above 30%	Faridnagar	2	
1-15%	Hapur, Baraut, Mawana, Muradnagar, Faridnagar, Bagpat, Garhmukteshwar, Shahjahanpur.	8	Manufact- uring Industry
16-30%	Meerut including Kankar Khera, Ghaziabad Pilkhuwa.	3	
Above 30%	Modinagar		

## 3.6.6

The range of participation ratios in manufacturing and household industries for various towns is given in Table No.16<sup>B</sup>. In Meerut, Ghaziabad, Modinagar, Pilkhuwa manufacturing industries are predominating. However, considering the total number of workers and not the percentage only four towns are industrially important in the district. These are Meerut, Ghaziabad, Modinagar, Hapur and have been selected as Regional towns in the N.C.R. Plan. Modinagar has as many as 71.7 percent<sup>31</sup> of total workers as industrial workers. Faridnagar is the important centre of household industry.

## 3.6.7.

Agro-based industries: Agriculture plays a vital role in the overall economy of the district. The output of wheat, sugarcane and oil seeds in the district is an important food resource of the country. Out<sup>32</sup> of 184 registered agro-based industries in the whole of N.C.R., U.P. sub-region had 85 (more than 46%).

Predominant among registered agro-based industries of the U.P. sub-region are sugar, agricultural implements, and hydrogenated oil industries. Meerut District has the largest number of sugar factories and also large concentration of oil mills. The district is the home of sugar and edible oil industry in the U.P. State. The equipment used especially by the sugar industry is old and obsolete and its maintenance cost is high. Being uneconomic these units cannot compete advantageously with other industries. The quality of sugar can also need to be improved. If the economy of the district has to be stabilized a lot of attention has to be



given to planning and modernizing the management of plants and equipment and the production and consumption pattern of raw materials. The industry, if properly developed can be of a great help in boosting up the development of ancillary industrial units like cane crushers, agricultural implements, repairing shops and related agricultural and commercial economics. Detailed investigation of the operational network of this industry should be given due attention. In the unregistered sector mainly industries like sugar cane crushers at Hapur, handloom products at Meerut has developed. Table No.17 shows the number of registered agro-based industrial units and employment at Meerut district.

3.6.8.

TABLE NO.17

NO. OF AGRO-BASED INDUSTRIAL UNITS &  
EMPLOYMENT MEERUT DISTRICT 1966

Source: Based on the Survey by Town &  
Country Planning Office, Meerut.

	X Units	XNo. of workers
1. Flour Mills	3	58
2. Dal Mills	3	25
3. Sugar Mills	22	9294
4. Edible Dal Mill	5	448
5. Agricultural Implements	32	989
6. Cotton Ginning Mills	2	50
7. Rice Mills	-	-
8. Cold Storage	8	174
9. Canning Preserving etc.	3	328
10. Dairy Products	1	35
11. Distillery and Rectifying Spirits	2	118
12. Hydrogenated oil	4	1654
<b>TOTAL</b>	<b>85</b>	<b>13,173</b>
% of Total of N.C.R.	67.46	83.70

## 3.6.9

The Ghaziabad-Loni complex was the biggest both in terms of industrial units and employment in 1930; having 44.3 percent of total units and 37.5 percent of total workers in this sector. Meerut-Partapur complex was the second biggest having 31.5 percent of total units. Modinagar having only 7.2 percent of the units was comparatively smaller than of Hapur (8 percent).<sup>33</sup>

## 3.6.10

Within a span of only 4 years from 1962-66, both the number of units and total employment in the district has registered a remarkable increase. It is clear that there is no yet a lot of scope for the growth of industries in the Meerut District. The industries which could be promoted, considering the past growth in their number and employment are, manufacture of machinery, textiles, food products, basic metals, printing and publishing. The textile industry in the district has ranked highest since 1962 in terms of employment which has risen to 8,283 in 1966 from 3,227 in 1962. The number of workers in general machinery rose to 5,280 (1966) from 2,674 in 1962 and 1,002 in 1952.<sup>34</sup>

The food and beverage industry which was a very important industry upto 1957, this industry's products appear to have a very large scope for development due to the growing size of urban consumer markets within the district and the N.C.R.

## 3.6.11

Most important industries of Meerut-Partapur complex are food products, general machinery, cotton textiles, miscellaneous industries, paper products, basic metal industry, service

industries and tyre and tube plant of Modis. In Ghaziabad-Loni complex employment in the registered sector has shown a steeply rising trend and has the highest number of workers among the towns of the district. While Ghaziabad is developing as a centre of varied kinds of manufacturing enterprises, Modinagar is developing as a big single enterprise manufacturing township. In terms of employment the Modi Cotton Mills and Modipan (producing synthetic cloth fibre) accounts for the largest number of workers in the district. Being a grain mandi, Hapur does not account for a large number of workers in industries though basic metal and machinery industries are developing (Refer Table No.18).

3.6.12

TABLE NO.18IMPORTANT INDUSTRIES IN TOWNS

Source: Survey by the Town & Country Planning Office, Meerut

Item	X Meerut	X Ghaziabad-Loni	X Modinagar	X Hapur
1.	Miscellaneous	Machinery	Textiles	Machinery
2.	Food Products	Basic metals	Food Products	Food Products
3.	Printing	Transport	Basic Metal	Textiles
4.	Textiles	Food Products	Metal Products	Basic Metal
5.	Machinery	Textiles	Transport	Basic Metal

3.6.13. TRADE & COMMERCE

The district is almost wholly agricultural in character. As such trade and commerce mainly wholesale goods is an important economic

function of the district and its development is essential to encourage production economics like agriculture and industry. The chief export materials are grain and cotton. Most of the wholesale as well as retail trade is concentrated in towns located on the regional road and railway network. Ghaziabad is the main centre for channeling whatever supplies of consumer goods to the district and region. Raw cotton, oil seeds, fruits, vegetables, oils and finished industrial products are exported to Delhi and to other parts of the country. Meerut is the focal point for the trade of food grains and after Ghaziabad has the most advantageous location with respect to the communication network. Meerut and Pilibhuta are the main centres for the distribution of handloom cloth. Meerut is the biggest timber market in Western U.P.

3.6.10 .

The district has a large number of bigger villages which are local market centres. These villages will largely depend on the bigger nuclei, both towns and rural settlements, like the growth centre for trade and function. There is complete hierarchy of overall trade function. Categories of markets:-

- i. District Mandi (Meerut)
- ii. Regional distribution centres (Meerut, Ghaziabad, Meerut, Modinagar, Daggat, Baraut, Mawana, Garhmukteswar).
- iii. Rural marketing centres
- iv. Basic village markets

3.6.11

The average per capita income in the district i.e. Rs. 320.00<sup>35</sup> during 1961 is quite above the average per capita income of the

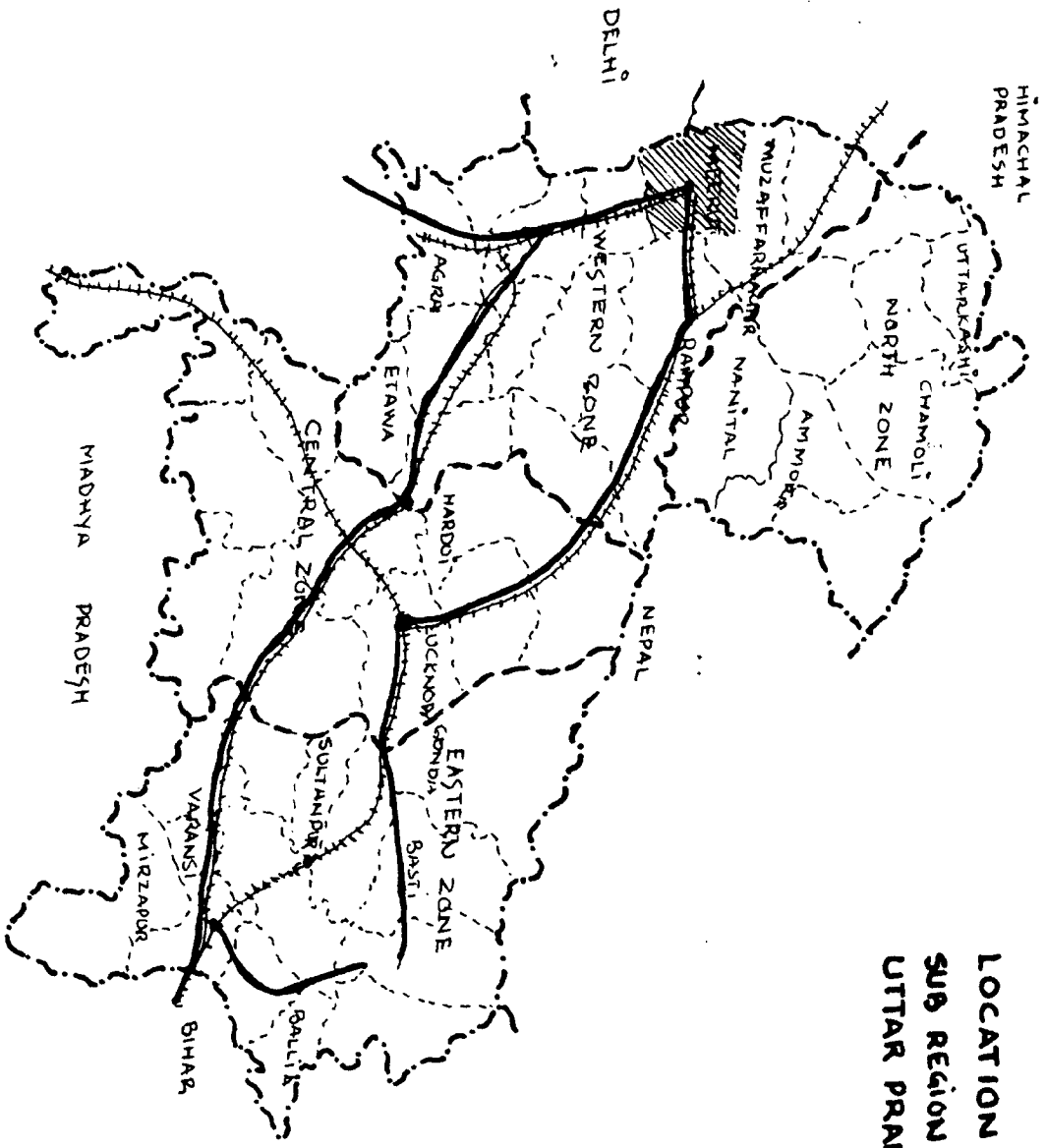
State (Rs.246.00) and is much below the per capita income of Rs.840.00 in the economy of Delhi Metropolitan area.

### 3.7.0 MOORUT DISTRICT V/S N.C.R. V/S U.P. WESTERN ZONE







#### 3.7.1.

The U.P. sub-region (Moort and Bulanchahr Distt.) constitutes 36.4 percent of the total area and 38.4 percent (1971) of total population of National Capital Region. If the population of Delhi Union Territory is discounted, the U.P. Sub-region contains 91.6 percent of the total population of the N.C.R. After Delhi the density of population in U.P. sub-region is highest and is almost double that of the average density of population in Haryana and Rajasthan sub-regions.

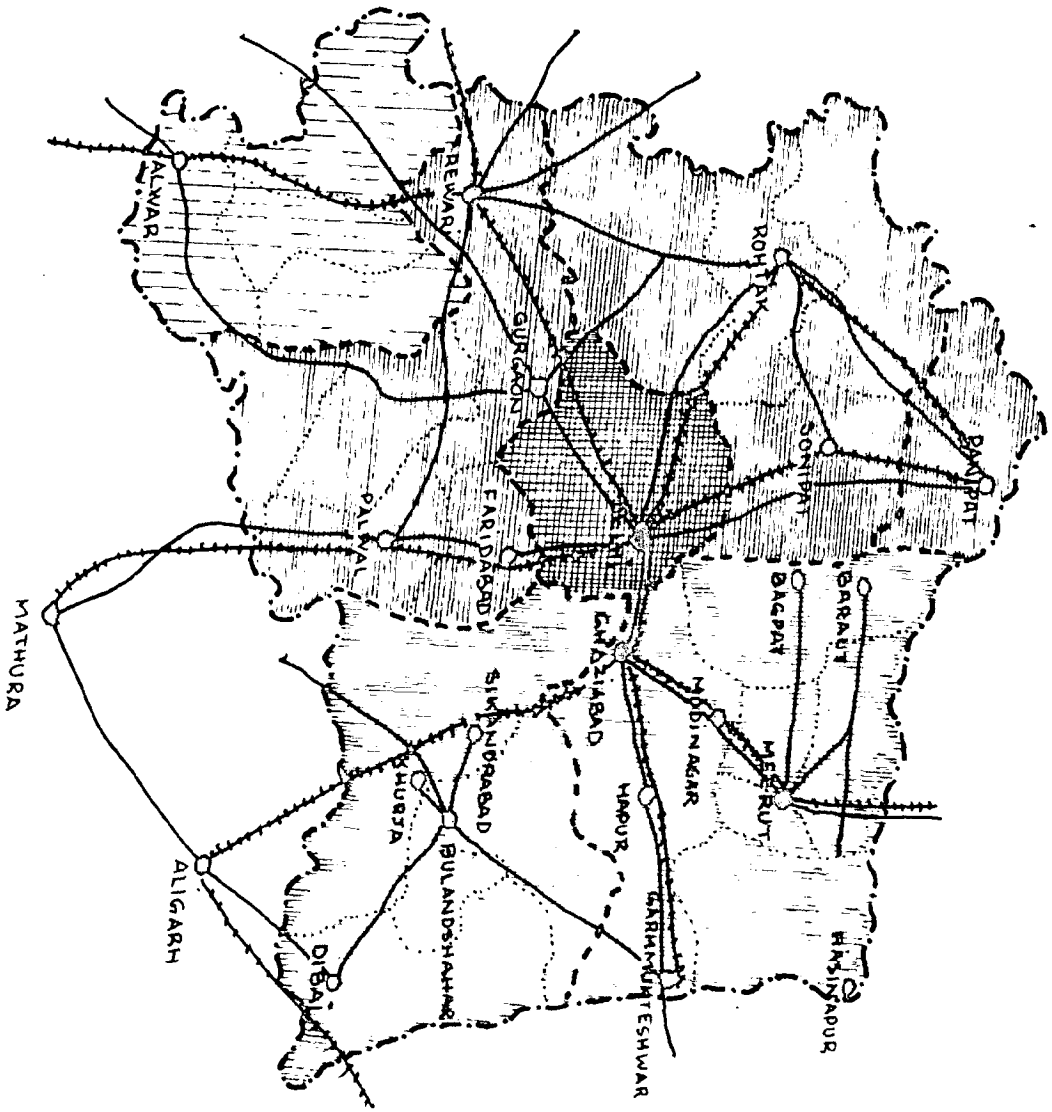
In 1931, out of total urban population of 13.17 lakh in the N.C.R. including Delhi, the U.P. sub-region accounted for 7.76 lakh. Table No.17, Fig. 1). This shows that from the point of view of size and density of urban and rural population and the consequent problems of economic interaction between the various sub-regions of U.P., sub-region forms a very important segment of the N.C.R.



**LOCATION OF UTTAR PRADESH  
SUB REGION N.C.R. WITH RESPECT TO  
UTTAR PRADESH AND WESTERN U.P.**

-  UTTAR PRADESH BOUNDARY
-  ZONAL BOUNDARY
-  MAJOR HIGHWAY
-  DISTRICT BOUNDARY
-  RAILWAY LINE
-  MEERUT DISTRICT

# national capital region






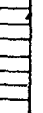
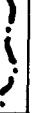

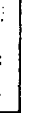
-  DELHI SUB-REGION
-  U.P. SUB-REGION
-  HARYANA-REGION
-  RAJASTHAN
-  N.C.R. BOUNDARY
-  DISTRICT BOUNDARY
-  TEHSIL BOUNDARY

CHART-5

3.7.2.

TABLE NO. 19

44

**AREA, POPULATION AND DENSITY OF POPULATION OF  
THE SUB-REGIONS (MEERUT & BULANDSHAHR DISTT)  
OF NATIONAL CAPITAL REGION**

Sources: Regional Plan NCR, TCPO, Delhi.

S.No.	Sub-Regions	Area in Sq.Km.	%age	Population				Density of	
				1961		1971		Po. per	
				No. in lakhs	% of total popr	No. in lakhs	% of total Pop.	Sq.Km. 1961	1971
1.	Union Terri- tory of Delhi	1,884	5.0	26.59	24.96	40.44	28.50	1,791	2,720
2.	U.P.Sub-region	11,000	36.4	44.50	41.60	54.20	38.40	405	493
a.	Meerut Distt.	6,016	20.8	27.13	25.30	33.46	23.70	451	556
b.	Bulandshahr Distt.	4,984	15.6	17.37	16.30	20.74	14.70	348	418

3.7.3.

The Meerut Distt. has the distinction of being located in the most fertile and well irrigated belt of the State. The district is very well linked to the rest of the State and most of the areas of the State are linked with Delhi through this district. By virtue of its location, the district acts like a zone of transition between the highly developed areas of Delhi Union Territory and the rather lower level of development in U.P. The nature of planning and development of the small and medium towns in this district will greatly bear upon the overall development of U.P. as the district forms a significant portion of the State. (Chart 5)



## 3.7.4

Meerut district is linked with the rest of western zone of U.P. by National and State highways and broad gauge railways. The efficient linkage between the National Capital Region and rest of U.P. through the major highways passing through the district has helped the growth of industrial and allied development of most of the towns (Table No.20)

## 3.7.5.

TABLE NO.20A

DEGREE OF URBAN POPULATION CONCENTRATION ON  
MAJOR HIGHWAYS 1971.

Source: Regional Plan NCR, TCPO, Delhi.

S.No.	Highway	Urban Centres	Urban Population 1971
1.	National Highway No.24.	Ghaziabad	88,275
		Pilkhuwa	23,950
		Hapur	42,800
		Ganmukteshwar	10,800
Total			1,65,865
2.	State Highway No.45	Meerut	3,06,400
		Ghaziabad	25,600
		Modinagar	43,488
		Muradnagar	13,977
		Muradnagar (Ordinance)	9,000
Total			3,98,465

### **3.7.6. REGIONAL DEFICIENCIES**

48

#### **3.7.7**

The objectives for the development of Meerut have been set out with reference to following deficiencies.

##### **3.7.7.1**

The majority of the urban centres (small and medium) lack dynamism in production, income and employment opportunities affecting economic well-being and growth.

##### **3.7.7.2**

Both the urban and the rural areas have inadequate availability, both in quantitative and locational terms of basic amenities, facilities, services and housing .

educational needs of the rural and regional population. In Meerut (U), there are 13 higher secondary schools, 10 colleges, 6 degree colleges, one medical college, one University and technical colleges respectively, while in middle class town like Baraut there are 4 higher secondary schools and one college only and finally in small town like Shahjahanpur there are only 2 high schools, which shows that middle and small towns are lacking in educational facilities.<sup>36</sup>

#### 4.0.5 HEALTH FUNCTIONS

#### 4.0.6

Medical facilities, public health and well-being and habitability of the district are closely inter-related. The convenient location of medical facilities in the district especially that of primary health facilities, in many respects, is far more important than the location of other facilities, in order, to ensure maximum welfare of the population. Though most, of the villages have been provided with public health centre but now the State Government has decided to provide facilities after each 8 Km. distance so that no villager has to travel more than 8 Km. to get the medical facilities.<sup>37</sup>

The statement can be illustrated and verified with the facts that Meerut (U) has 7 hospitals and 4 dispensaries, Ghaziabad has 3 hospitals and 2 dispensaries, Hapur has 2 hospitals and 1 dispensary, Baraut has one hospital and one dispensary, on the contrary smaller towns have one or two dispensaries like Pilkhuwa one, Garhmukteshwar one, Baghpat two.

#### 4.0.7 INDUSTRIAL FUNCTIONS

##### 4.0.8

A better standard of wages, amenities and living standards for every citizen, a proper balance between various occupations and a healthy interdependence <sup>ac</sup> between the urban and rural areas are the basic aims of development, so far this, a proper balance has to be provided between the man-power and utilization of different productive areas like agriculture, industries, etc.

Most of the urban areas have majority of industries and less of agricultural facilities since a vast number of labour is employed in the industrial establishment, while middle and small towns primarily depend upon agriculture and household industry. Meerut and Ghaziabad urban centres have 9 and 14 heavy industries, 26 and 34 light industries while the smaller towns Sardhana, Aminagar Sarai, Faridnagar depend upon the cottage industries and agriculture. Aminnagar has 526, Sardhana has 280, Faridnagar 106 cottage industries.<sup>38</sup>

#### 4.0.9 COMMUNICATION, SECURITY AND TRANSPORT FUNCTIONS

##### 4.0.10

Communication, security and transport facilities exist almost everywhere except a few places like Faridnagar and Shahjahanpur do not have railway stations. The strength of police stations varies according to the population and area of the town. Meerut district has two head post offices and 46 sub post offices and 384 branch post offices except Shahjahanpur and Kankar Khara, all towns are equipped with telegraphic facilities.

CHAPTER FOUR4.0.0. DISPOSITION OF VARIOUS FUNCTIONS IN DISTT, HEBRUT.

## 4.0.1

The habitability and total environment of any settlement is a direct function of the extent of the essential amenities and services located there. As such the extent of transportation development and availability of District amenities and its relationship with the location of population centres will greatly determine the workability of the districts development networks.

## 4.0.2

The existing infra-structure at the district level is dispersed comparably better scale than that of middle and small towns. The provision of facilities at the rural as well as urban level bears very little relationship to the population, both in as to quantity and the quality which a particular entity has to serve as analysed further in the next chapter. The development of rural facilities is only cyclical in nature and villagers have to depend upon urban areas for not only specialized and higher level health and educational facilities but also for the essential primary facilities, which should normally be provided in the villages. This puts undue pressure on the meagre development of facilities in the urban areas as the urban infra-structure is itself inadequate to meet its own requirements of the urban population, thus suffering through gross deficit in this respect.

4.03 EDUCATION FUNCTIONS

## 4.0.4

Educational facilities are concentrated mostly in the urban centres. Most of the urban educational institutions cater to higher

#### 4.0.7 INDUSTRIAL FUNCTIONS

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## CHAPTER FOUR

### 4.0.0. DISPOSITION OF VARIOUS FUNCTIONS IN DISTT. MEERUT.

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#### 4.0.11 RECREATIONAL AND CULTURAL FUNCTIONS

##### 4.0.12

The district Meerut is potentially very rich in its natural and historical landscape, the district has large network of rivers and canals which can be developed for various recreational spots. Apart from Ganga and Yamuna rivers the two branches of Upper Ganga Canal and its numerous distributories and irrigation works provide the basic framework for the recreational network. Most of the towns have fairs of big or small scale, the bigger towns like Meerut, Hapur, Baraut, Baghpat, Ghaziabad, Modinagar have cinema halls. Besides this Meerut Urban has a stadium, three big fair grounds.

##### 4.0.13

Charts 6 to 23 show the disposition of various existing functions in different small and medium towns of Meerut.

##### 4.0.14,

Chart No. 6 shows education facilities for urban areas

Chart No. 7 shows education facilities for rural areas

Chart No. 8 shows health facilities for urban areas

Chart No. 9 shows health facilities for rural areas

Chart No.10 shows industries

Chart No.11 shows communication

Chart No.12 shows security (urban level)

Chart No.13 shows security (rural level)

Chart No.14 shows transport (urban)

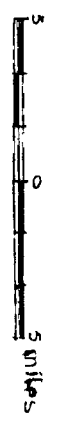
Chart No.15 shows transport (rural)

Chart No.16 shows Recreation (urban)

EDUCATIONAL

MAP OF DISTRICT MEERUT

- district boundary
- national highway
- tahsil boundary
- railway line
- metal road
- local metal road
- canal
- high school
- jr. high school
- college
- university
- medical college
- post graduate college
- tech college



B U L L A N D S H A H A R

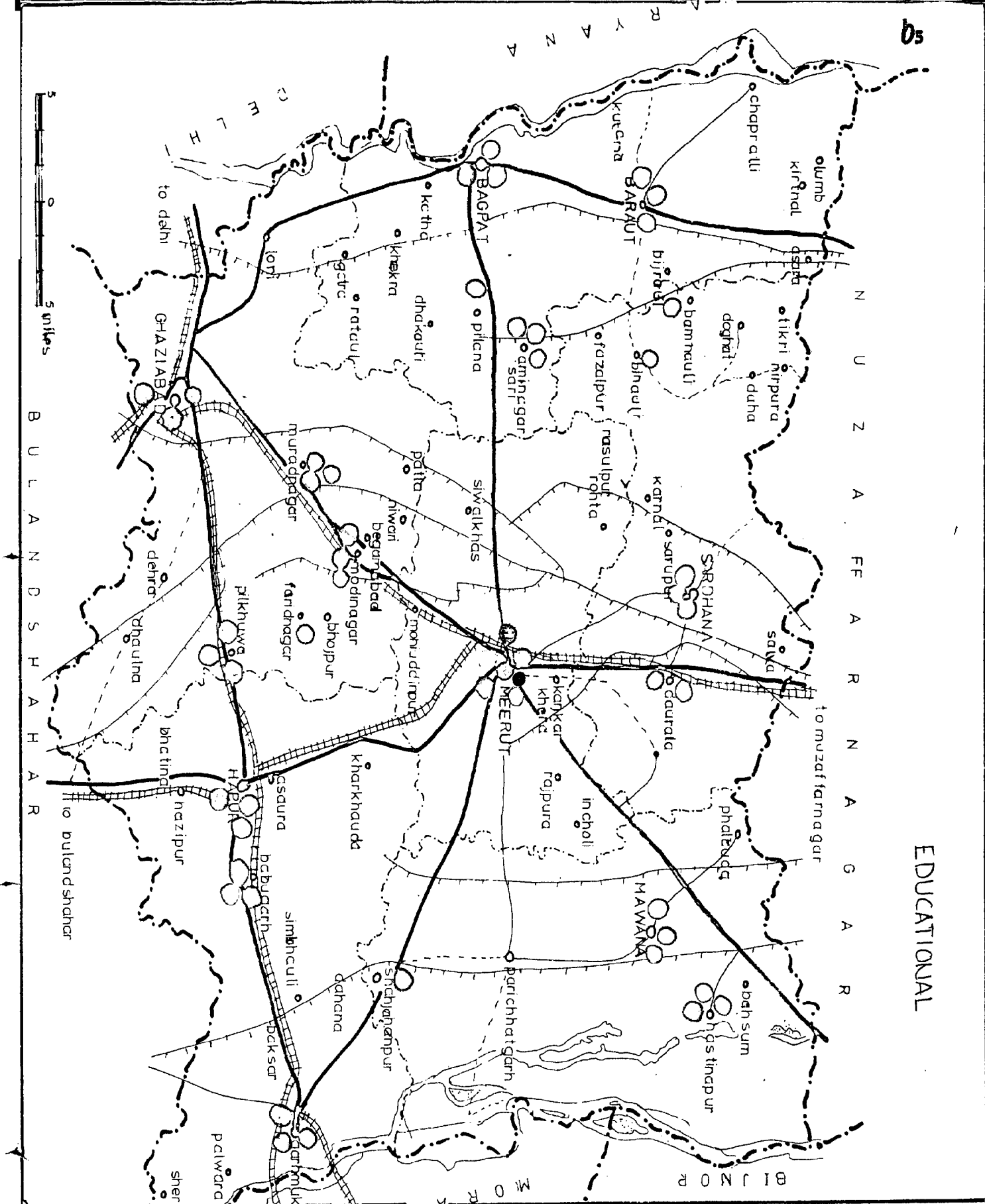
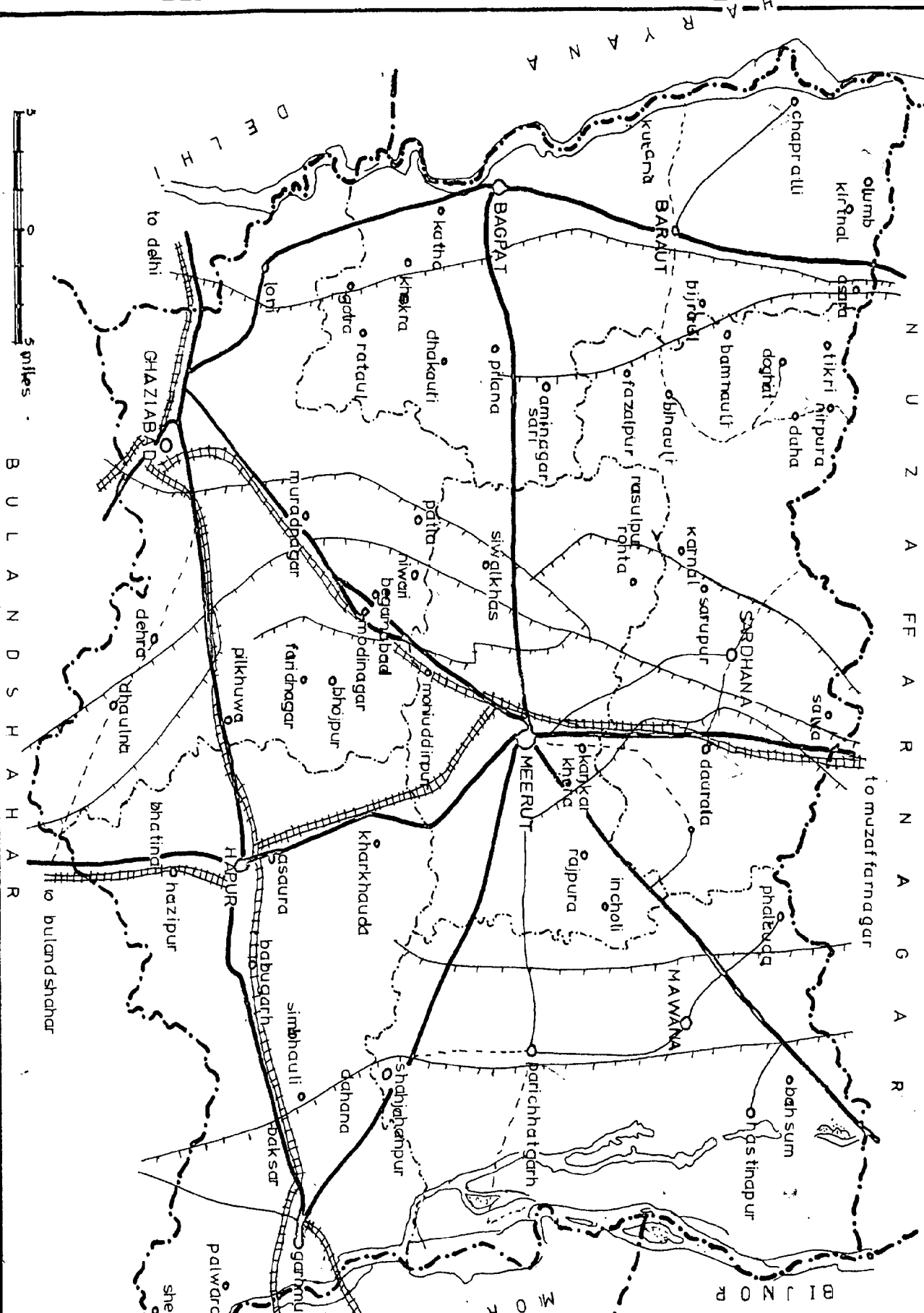


CHART-6

# EDUCATION

## MAP OF DISTRICT MEERUT



- district boundary
- national highway
- taluk boundary
- railway line
- metal road
- local metal road
- canal
- higher secondary school

CHART-7

5 miles

B U L L A N D S H A H A R

N U Z A F F A R N A G A R

B I J N O R

Y A M U N A

G H A G H A R A

to delhi

dehra

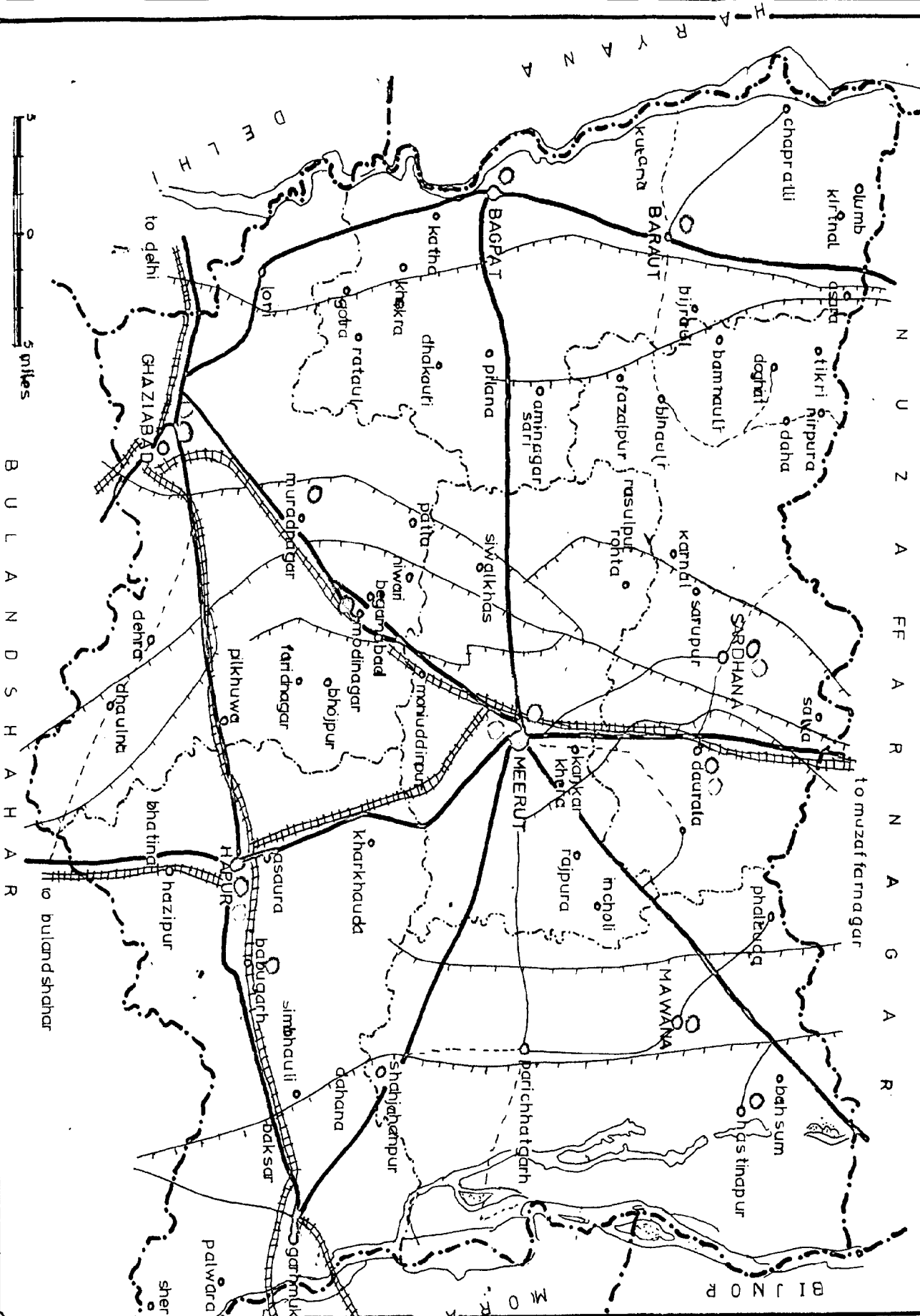
to bulandshahr

to muzaffarnagar

to moradabad

HEALTH FACILITIES

MAP OF DISTRICT MEERUT

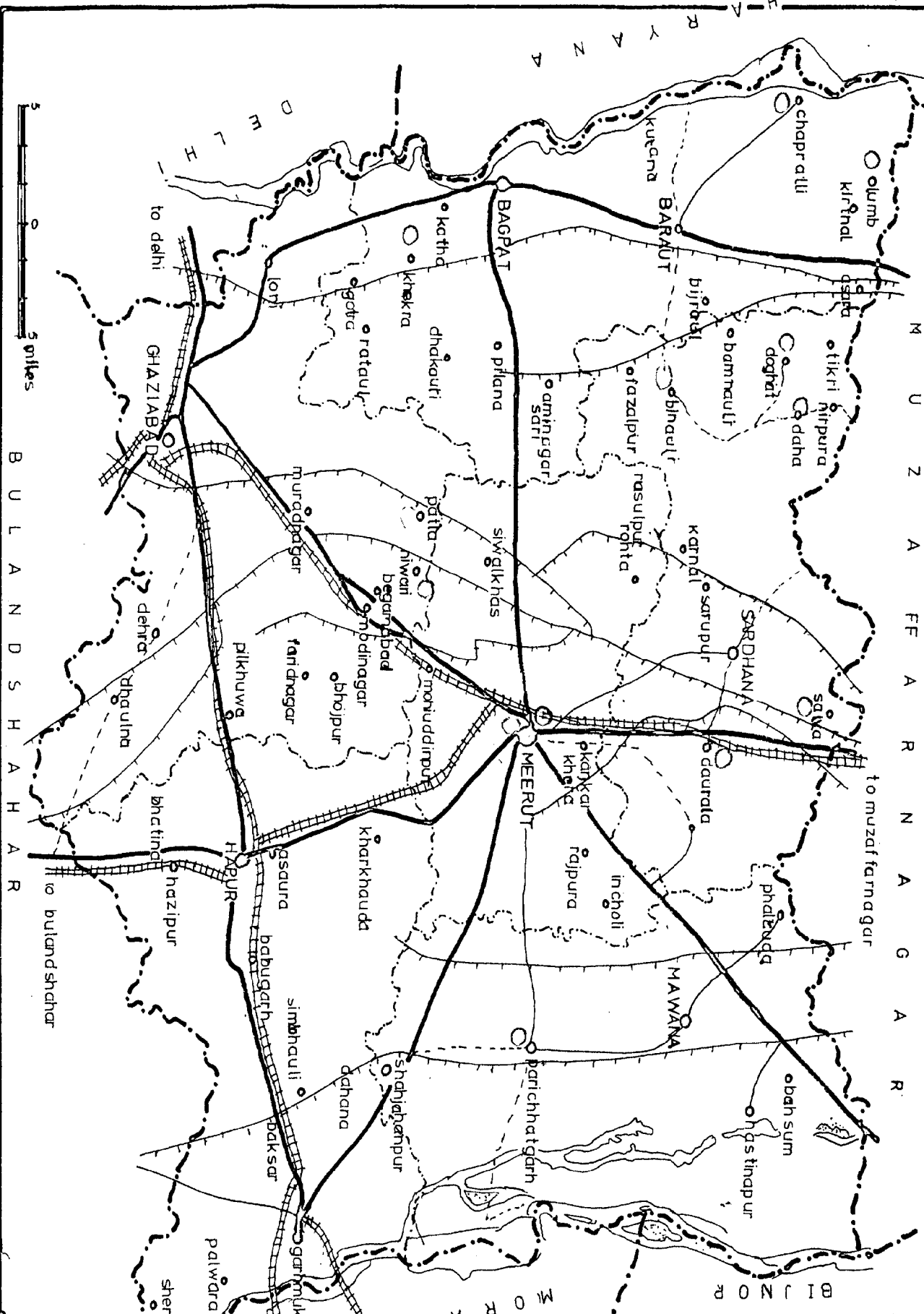


- district boundary
- national highway
- tahsil boundary
- railway line
- metal road
- local metal road
- canal
- hospitals
- dispensaries (clinics)

CHART-B

# HEALTH FACILITIES

## MAP OF DISTRICT MEERUT













- district boundary
- national highway
- taluk boundary
- railway line
- metal road
- local metal road
- canal
- dispensary
- mother and children welfare centre
- medical practitioner

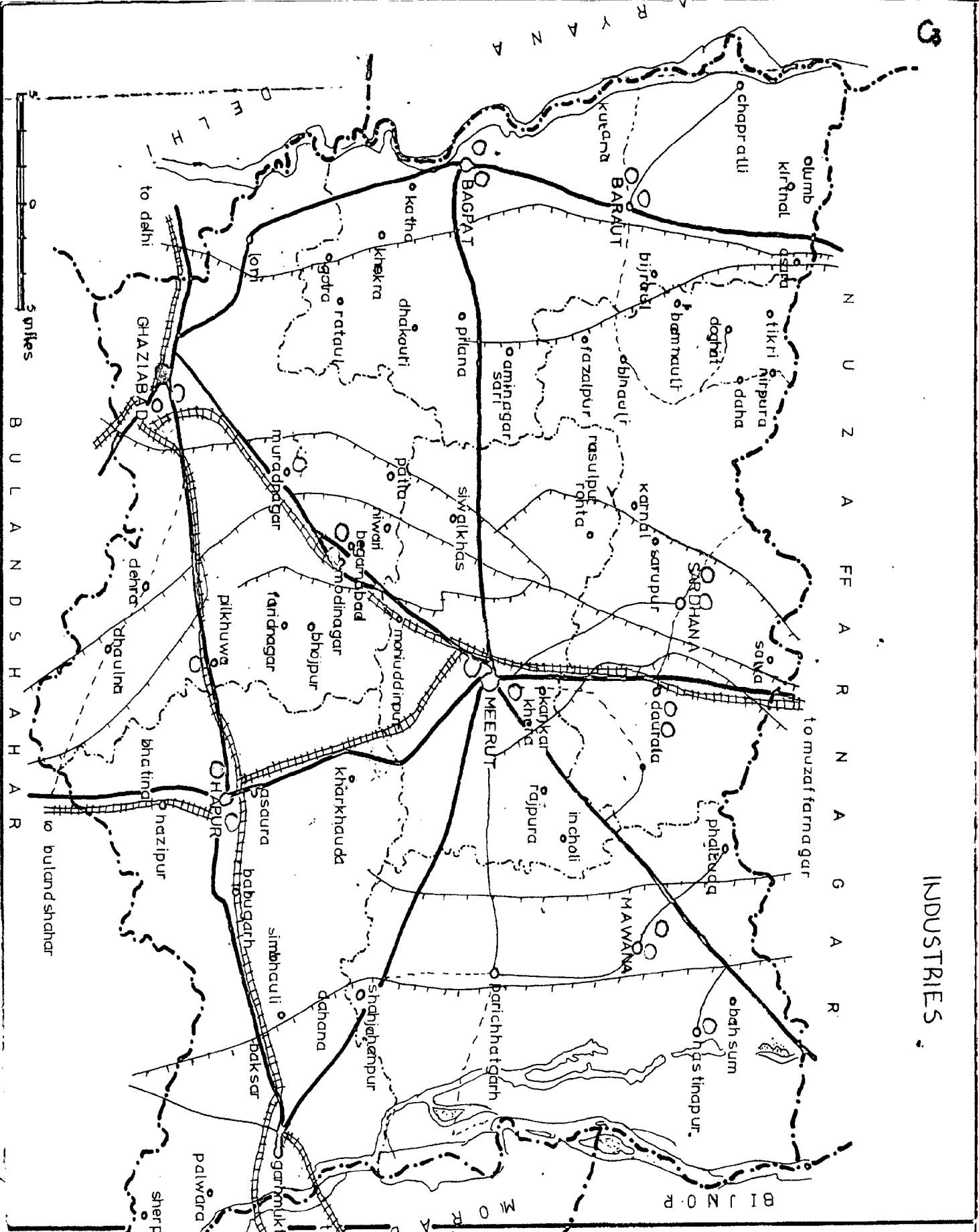
5 miles

CHART-9

INDUSTRIES

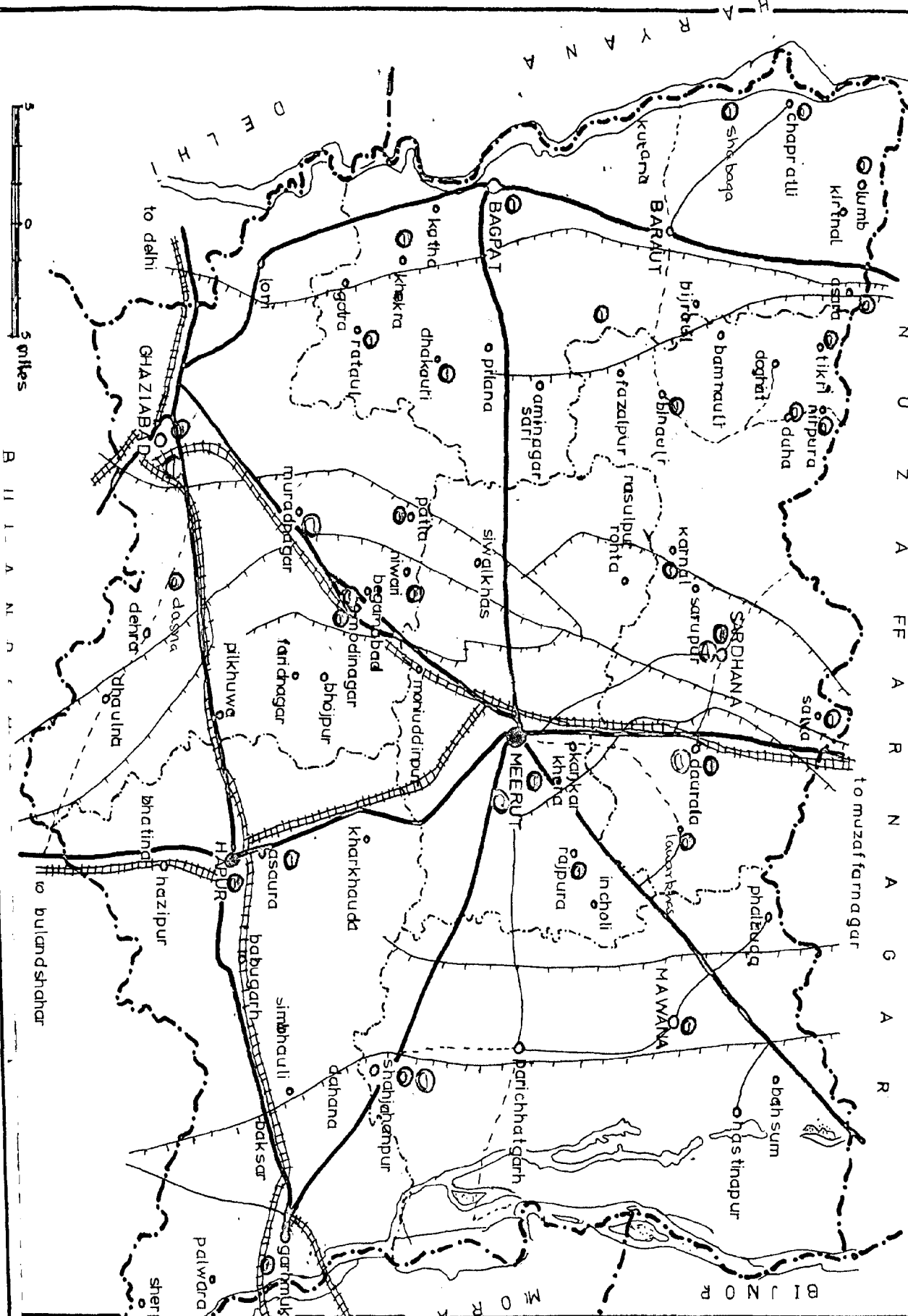
MAP OF DISTRICT MEERUT

-  district boundary
-  national highway
-  tahsil boundary
-  railway line
-  metal road
-  local metal road
-  canal
-  primary
-  secondary
-  tertiary



COMMUNICATION

MAP OF DISTRICT MEERUT
















- district boundary
- national highway
- tansil boundary
- railway line
- metal road
- local metal road
- canal
- post office
- P&T services
- exchange

CHART-1

SECURITY

MAP OF  
DISTRICT  
MEERUT

-  district boundary
-  national highway
-  tahsil boundary
-  railway line
-  metal road
-  local metal road
-  canal
-  police office
-  police station
- 
- 
- 
- 

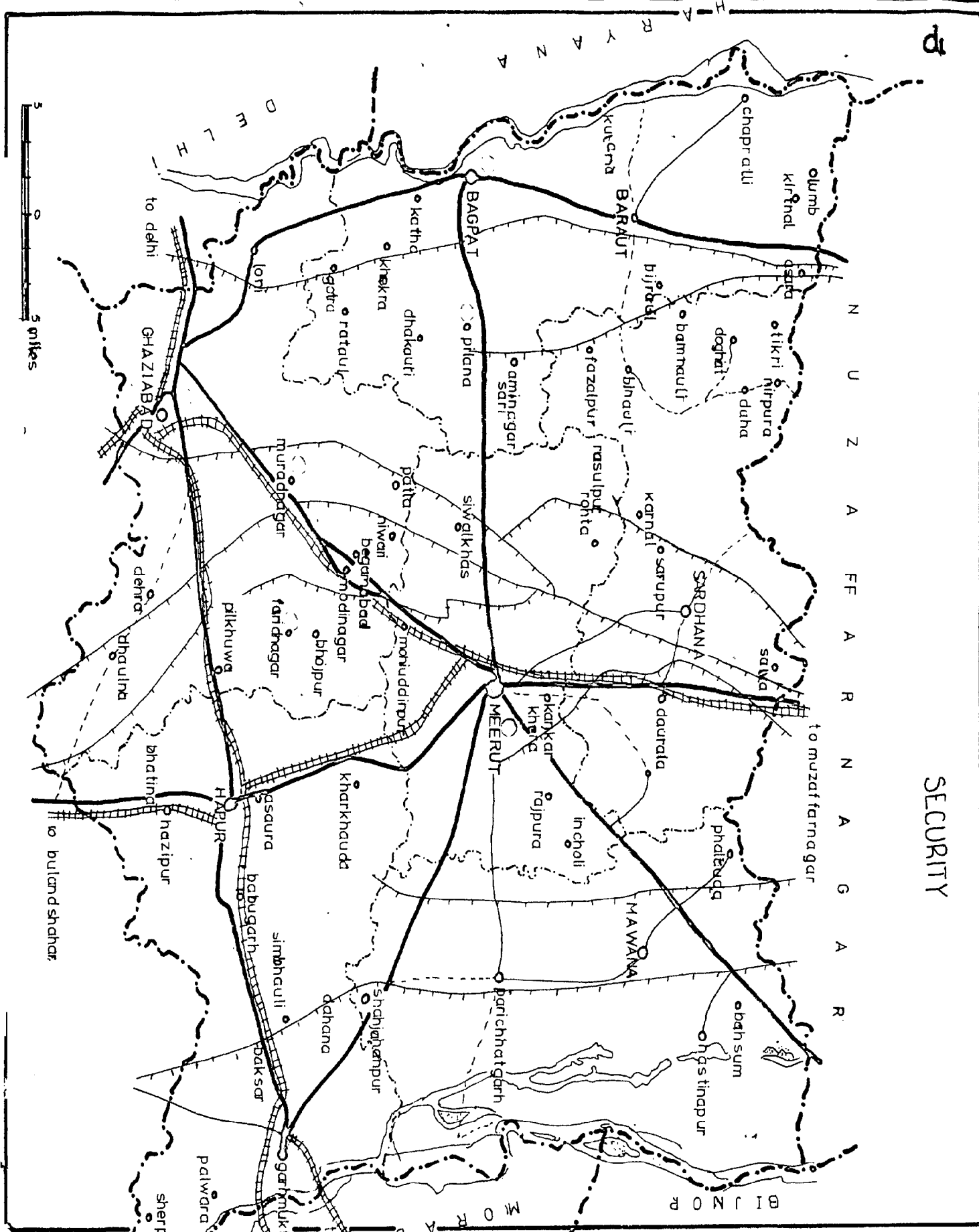
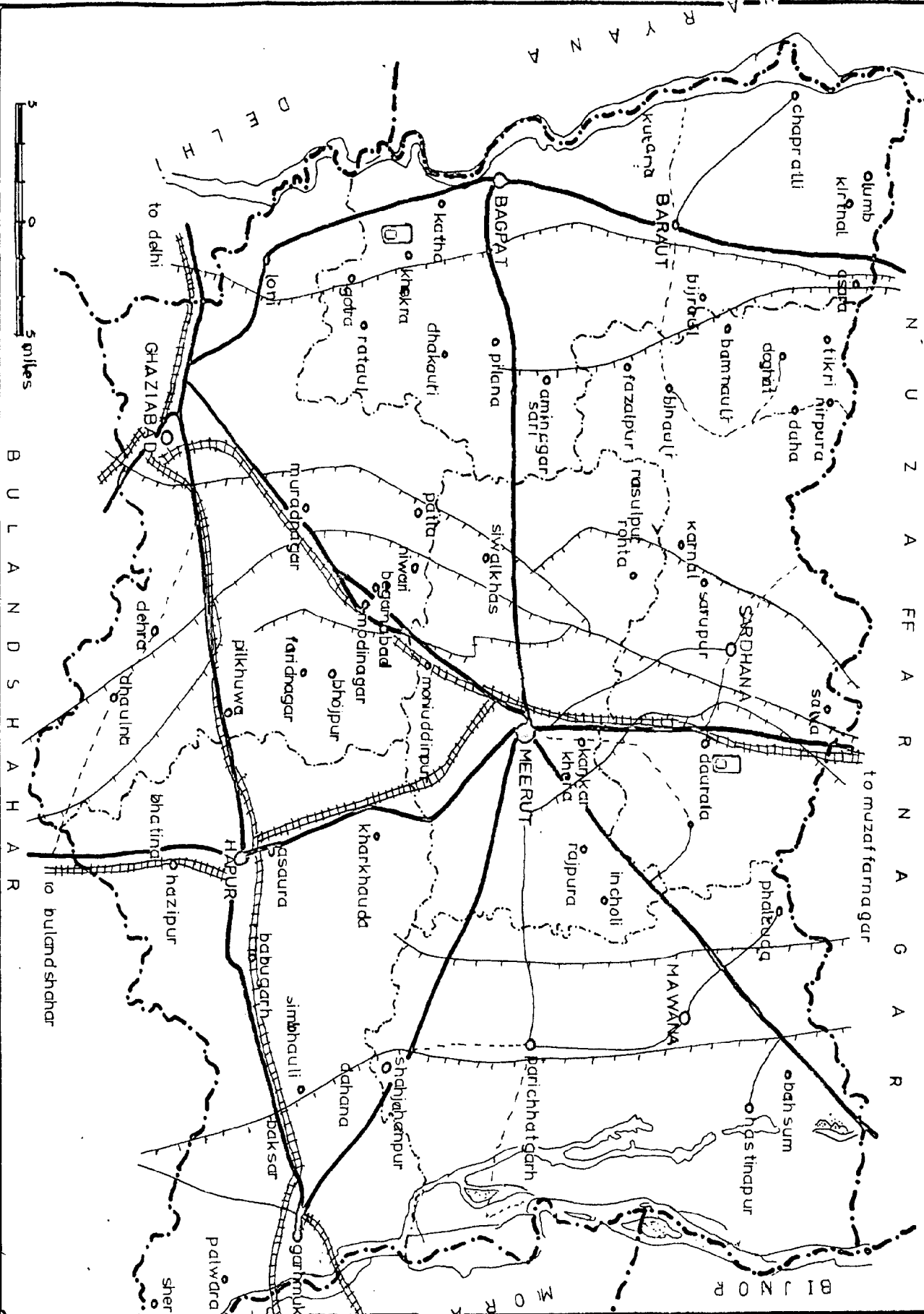


CHART-12



SECURITY

MAP OF DISTRICT MEERUT

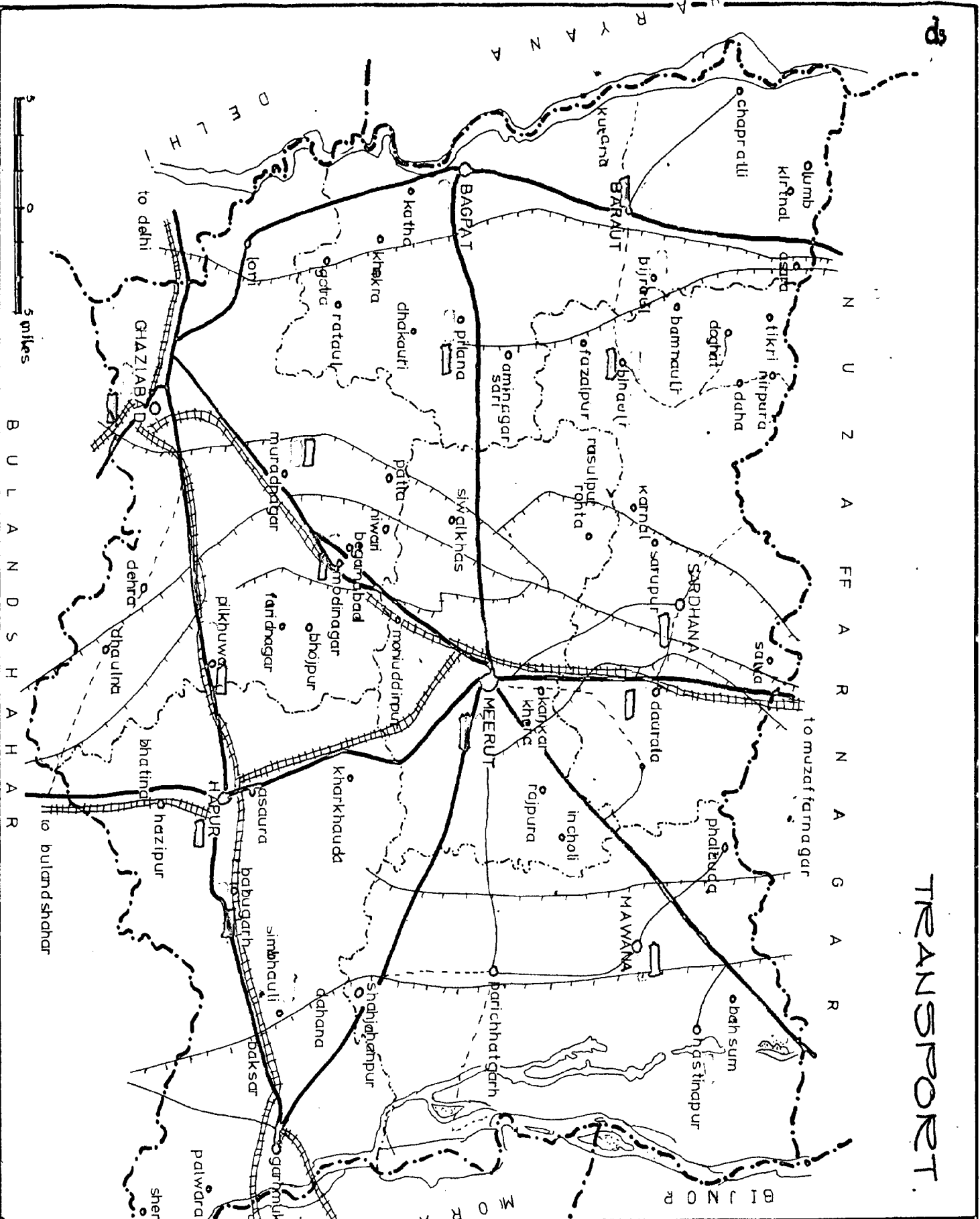


- district boundary
- national highway
- tahsil boundary
- railway line
- metal road
- local metal road
- canal
- police station

CHART-13

# TRANSPORT.

## MAP OF DISTRICT MEERUT












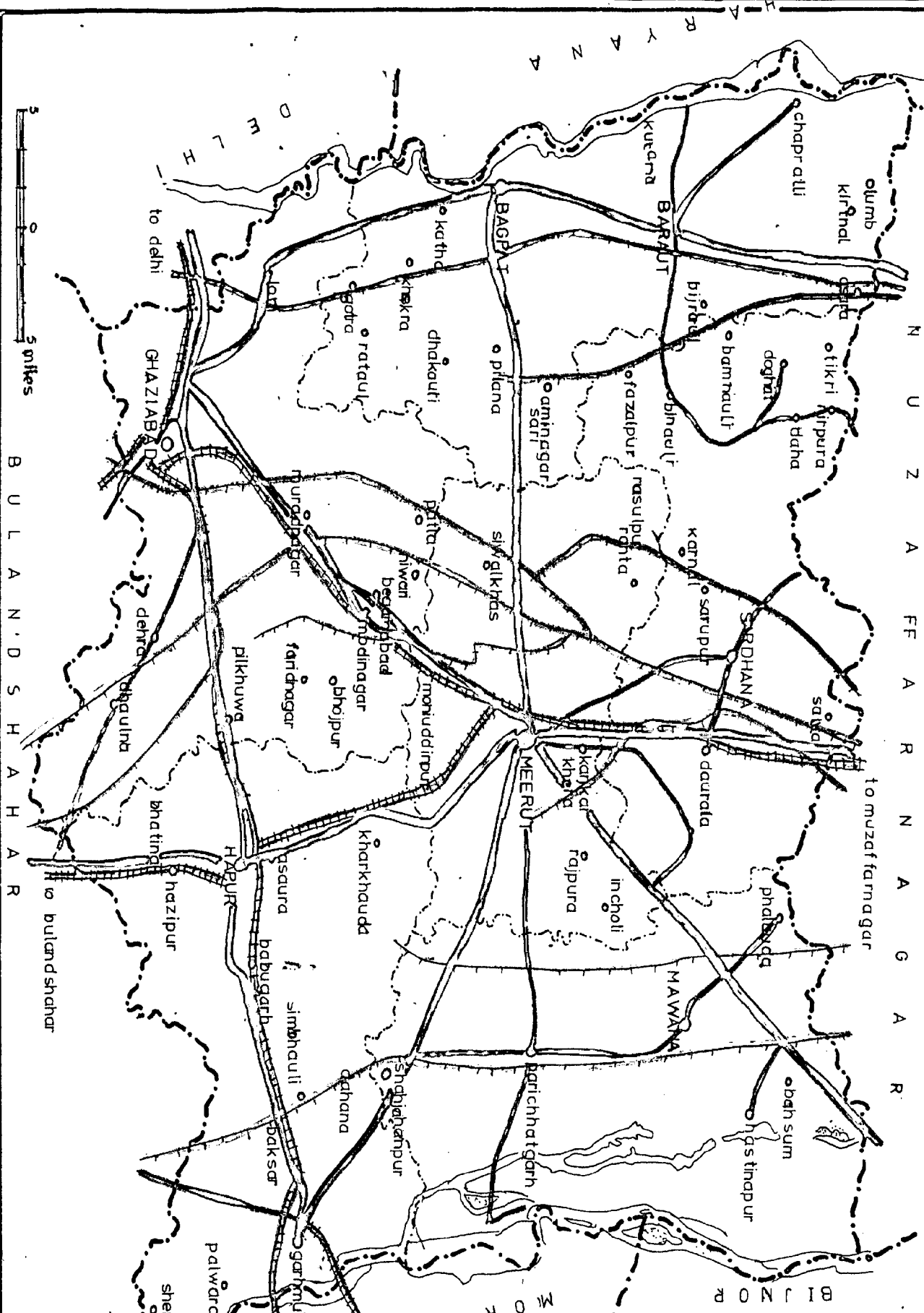
-  district boundary
-  national highway
-  tahsil boundary
-  railway line
-  metal road
-  local metal road
-  canal
-  bus terminus
-  railway station

CHART-14

TRANSPORT

MAP OF DISTRICT MEERUT



- district boundary
- national highway
- taluk boundary
- railway line
- metal road
- local metal road
- canal

CHART-15



RECREATION

MAP OF DISTRICT MEERUT

- district boundary
- national highway
- tahsil boundary
- railway line
- metal road
- local metal road
- canal
- cinema
- fair ground/other

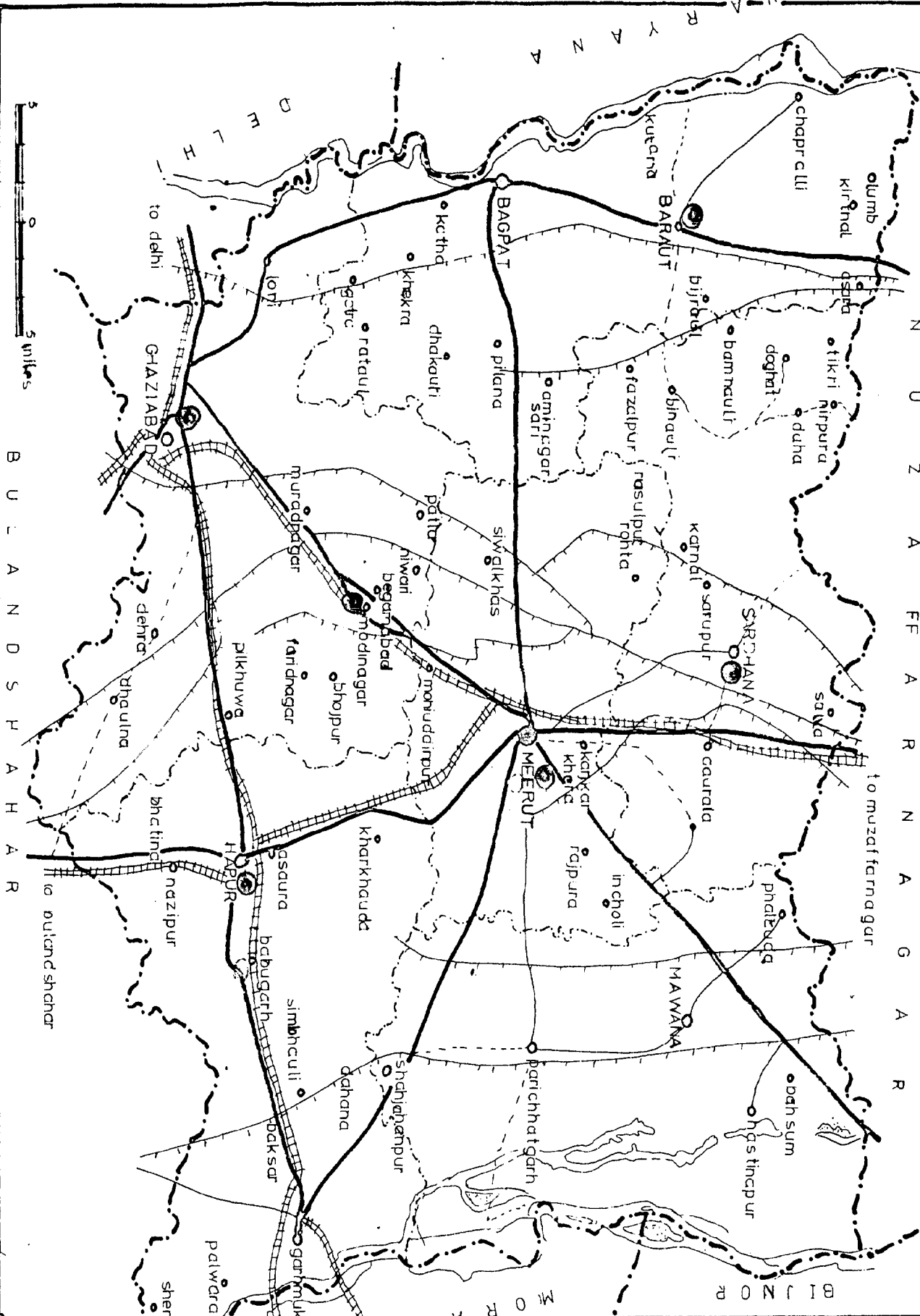
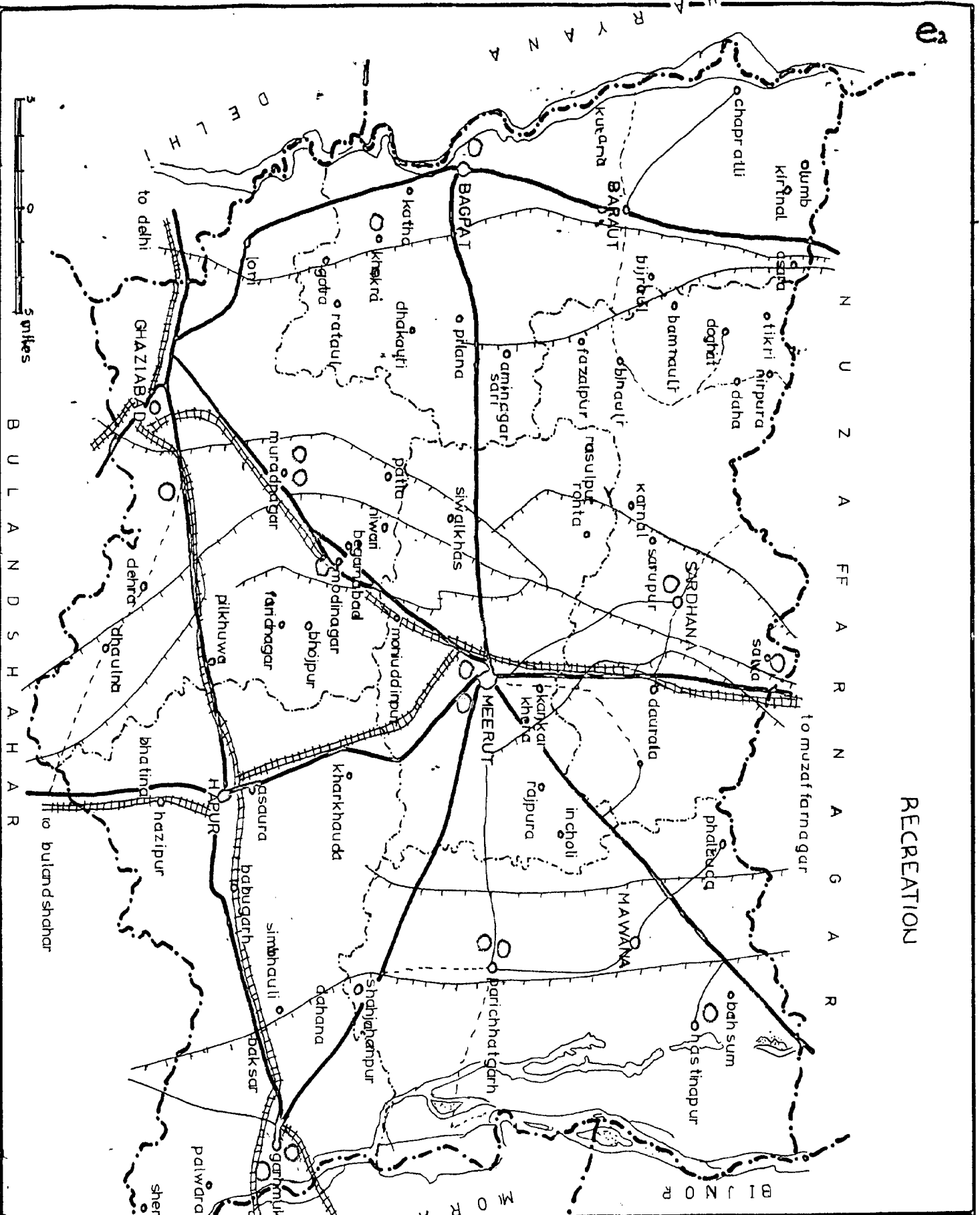


CHART-16

RECREATION

MAP OF  
DISTRICT  
MEERUT

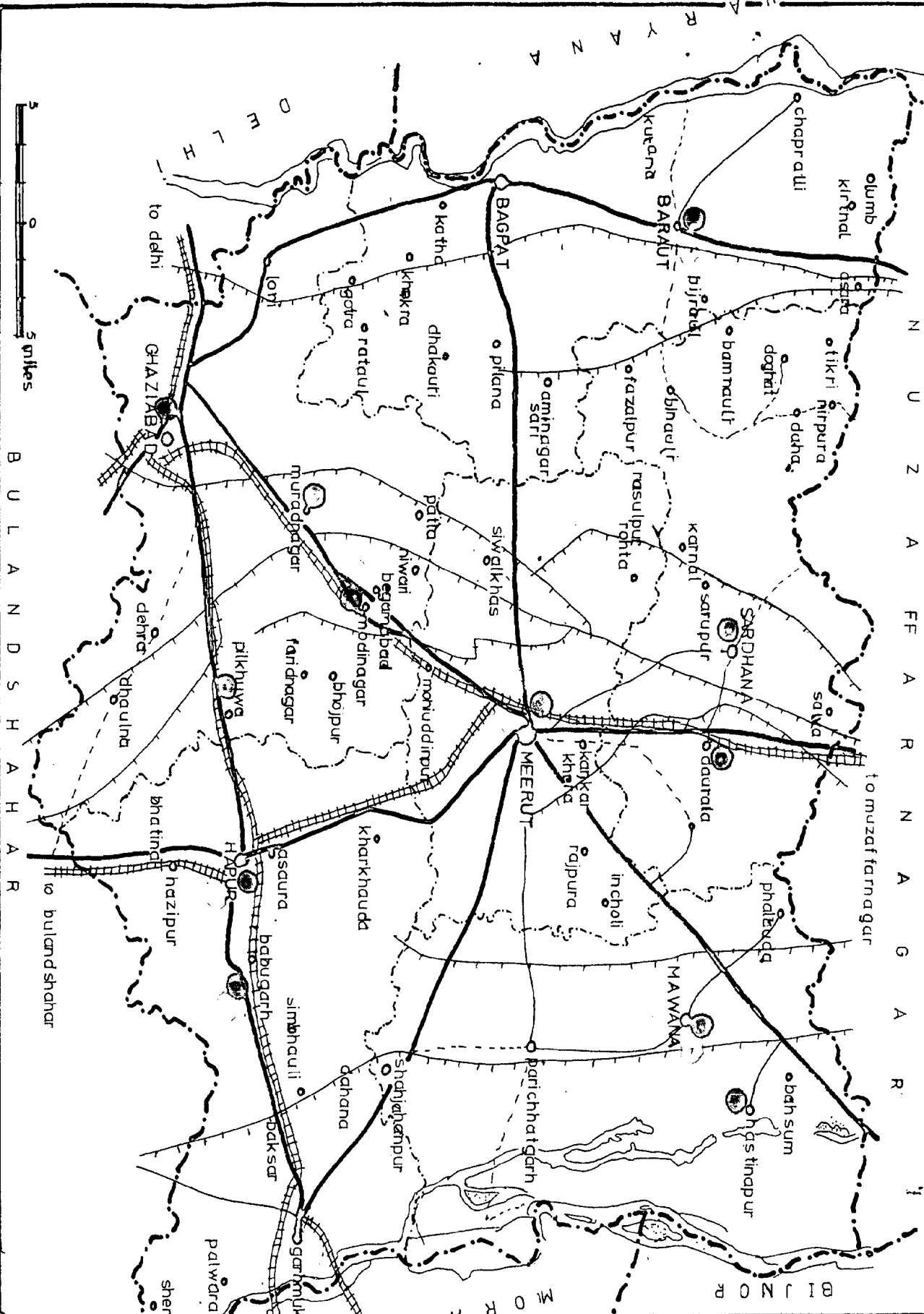


- district boundary
- national highway
- tahsil boundary
- railway line
- metal road
- local metal road
- canal
- historical places
- fair
- worth visiting place

CHART-17

SHOPPING FACILITIES

MAP OF DISTRICT MEERUT



- district boundary
- national highway
- taluk boundary
- railway line
- metal road
- local metal road
- canal
- market
- mawdi

CHART-18

5 miles

B U L A N D S H A H A R

M O R A D A B A D

to delhi  
to muzaf far nagar  
to bulandshahar  
to moradabad

OLUMB  
KIRHNAL  
SARDHANA  
MEERUT  
BAGPAT  
BARAUT  
MAWANA

chapralli  
gasa  
tikri  
ritpura  
daha  
dohat  
bamnaut  
binaut  
fazalpur  
nasulpur  
karnal  
sarupur  
palla  
niwari  
baganabad  
monuddinpur  
phalanda  
daurala  
bah sum  
pas tinapur

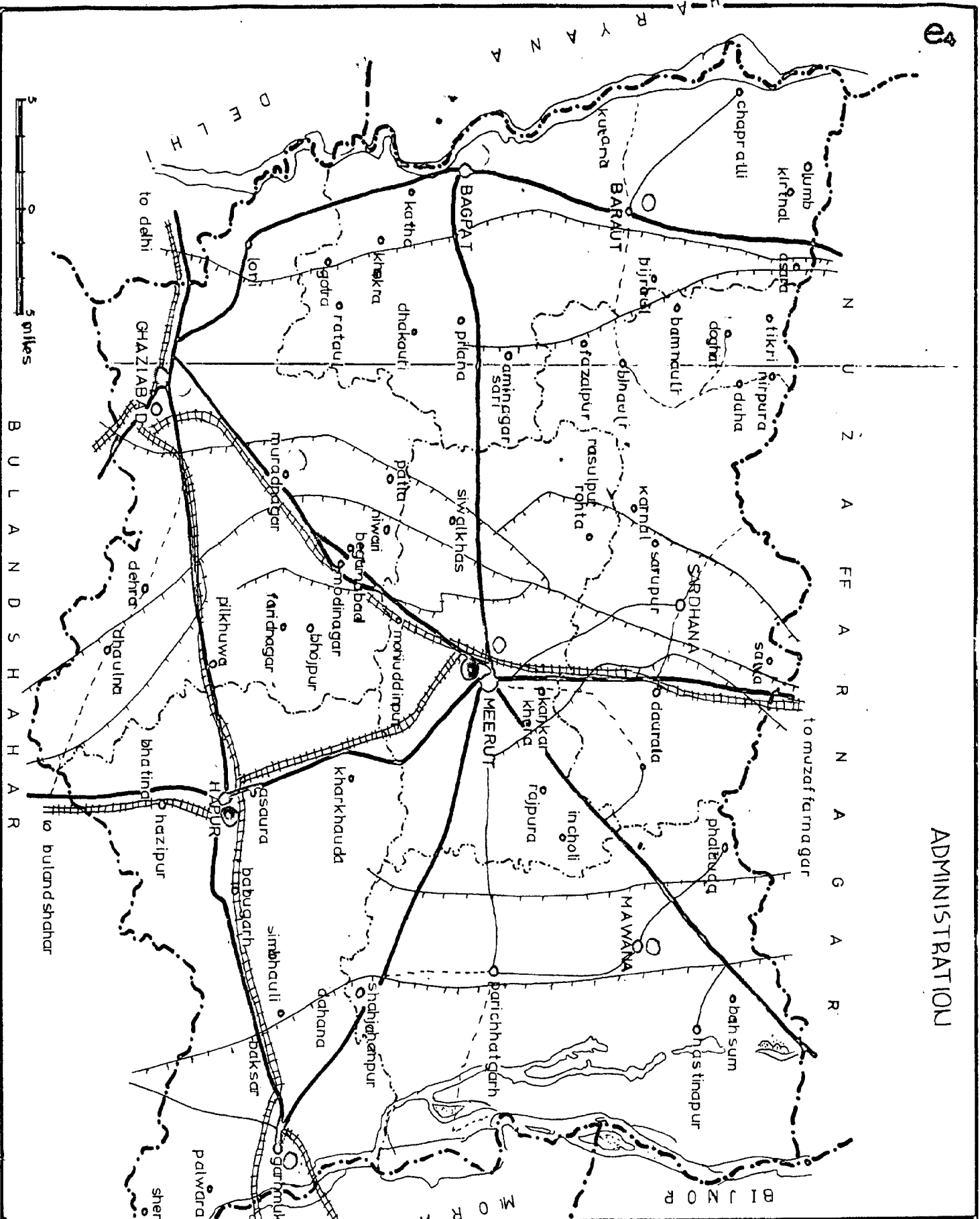
kathu  
khekra  
dhakauri  
ratalu  
gotra  
pilaana  
amimgar  
sati  
siw gikhias  
patla  
muradnagar  
fandnagar  
bhojpur  
mohindnagar  
kharkhauda  
rajpura  
incholi  
phalanda  
dahanu  
shahjahanpur  
parichatgarh

GHAZIBAD  
GHAZIPUR  
pilkhuwa  
bhatinga  
bhazipur  
gasa  
babugarh  
simhaculi  
dalksar  
garhmukteshwar  
palwara  
sherpur

to delhi  
to moradabad

ADMINISTRATION

MAP OF DISTRICT MEERUT



- district boundary
- national highway
- tehsil boundary
- railway line
- metal road
- local metal road
- canal
- district head quart.
- tehsil
- municipal board

CHART - 19

5 miles

B U L A N D S H A H A R

to delhi

to muzaf farnagar

to bulandshahar

to moradabad

to ghazipur

to meerut

to ghazipur

to ghazipur

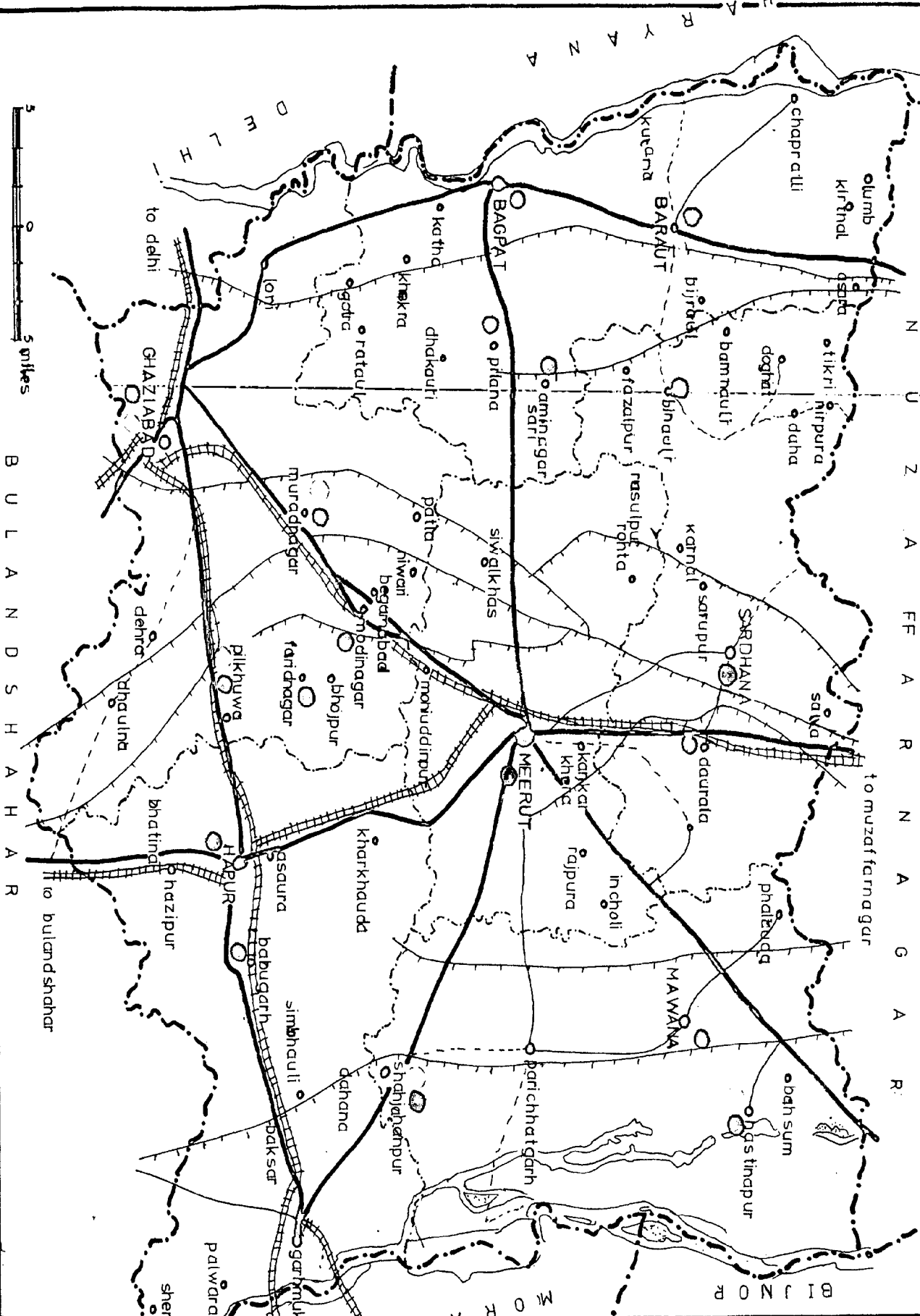
to ghazipur

10

H  
A  
R  
D  
W  
A  
R  
E  
R  
A  
J  
P  
U  
R  
A  
M  
A  
W  
A  
N  
A  
B  
A  
G  
P  
A  
T  
B  
A  
R  
A  
U  
T  
M  
E  
E  
R  
U  
T  
G  
H  
A  
Z  
I  
P  
U  
R

INFRA STRUCTURE

MAP OF DISTRICT MEERUT



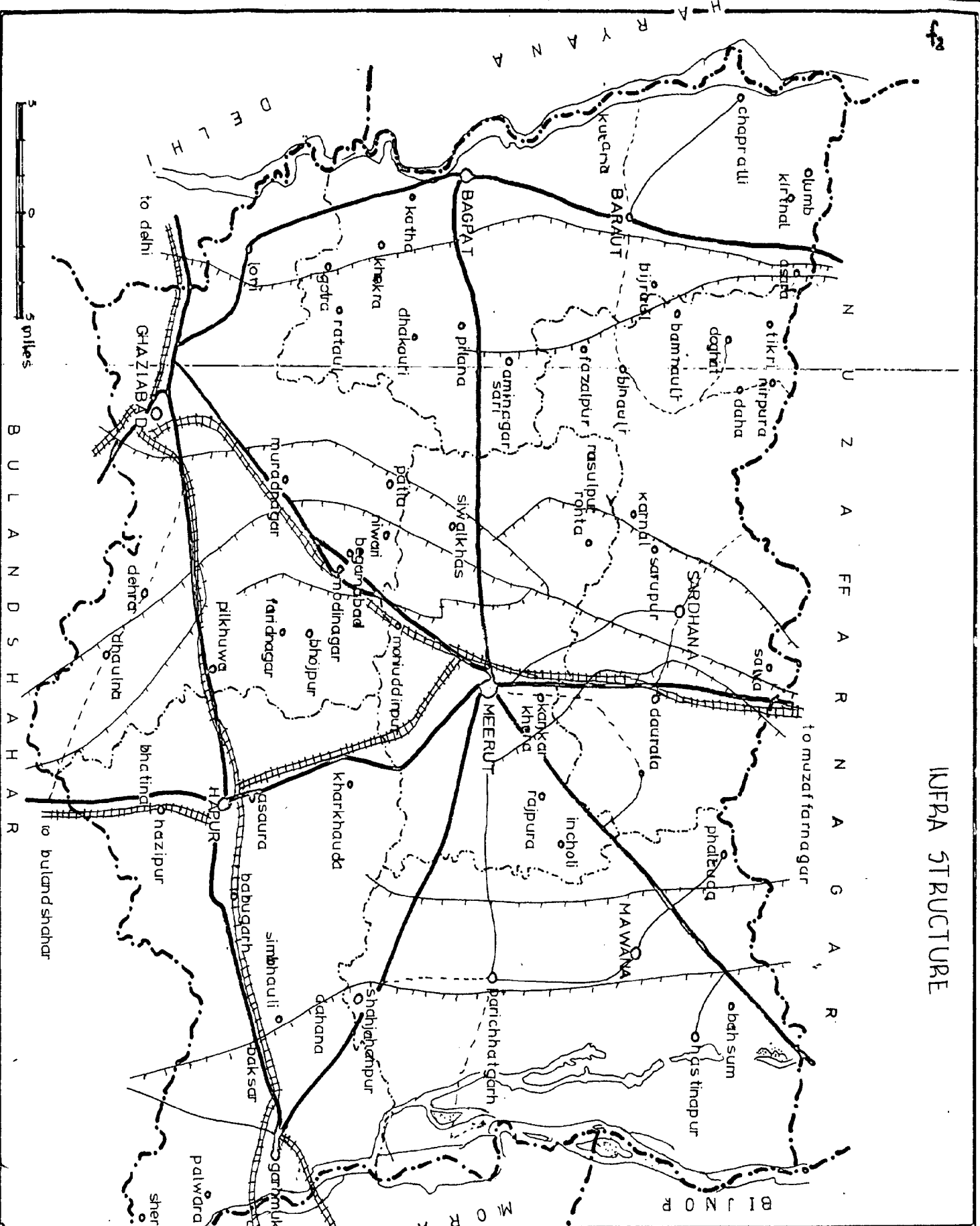
- district boundary
- national highway
- tahsil boundary
- railway line
- metal road
- local metal road
- canal
- electrification
- water supply

CHART-20



INFRA STRUCTURE

MAP OF DISTRICT MEERUT













- district boundary
- national highway
- tahsil boundary
- railway line
- metal road
- local metal road
- canal
- electrification

CHART-21

# PUBLIC BUILDINGS

## MAP OF DISTRICT MEERUT

-  district boundary
-  national highway
-  tahsil boundary
-  railway line
-  metal road
-  local metal road
-  canal
-  library
-  public buildings
-  guest house

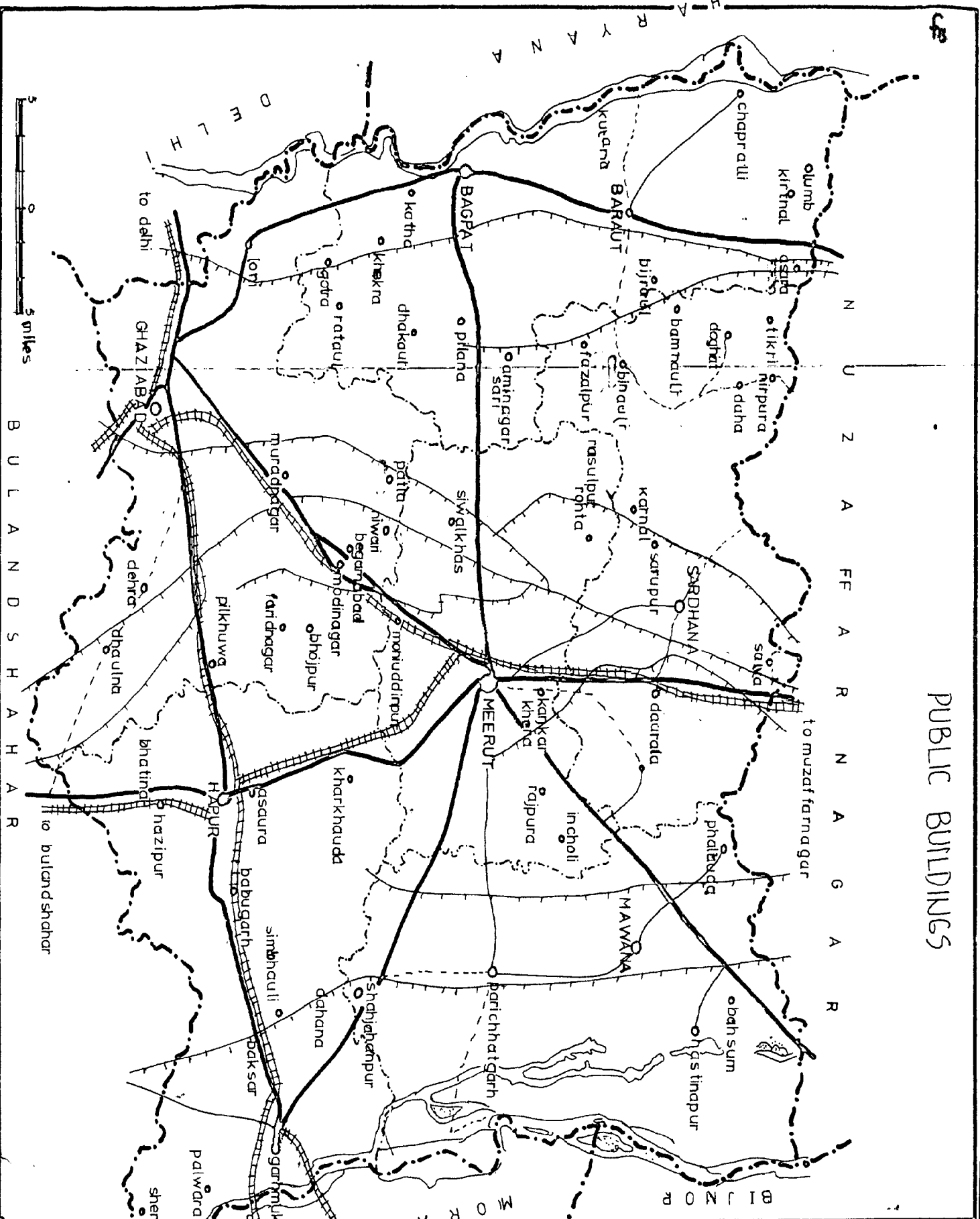











CHART-22

# AGRICULTURE

## MAP OF DISTRICT MEERUT

-  district boundary
-  national highway
-  tahsil boundary
-  railway line
-  metal road
-  local metal road
-  canal
-  agriculture facilities
-  tube-well

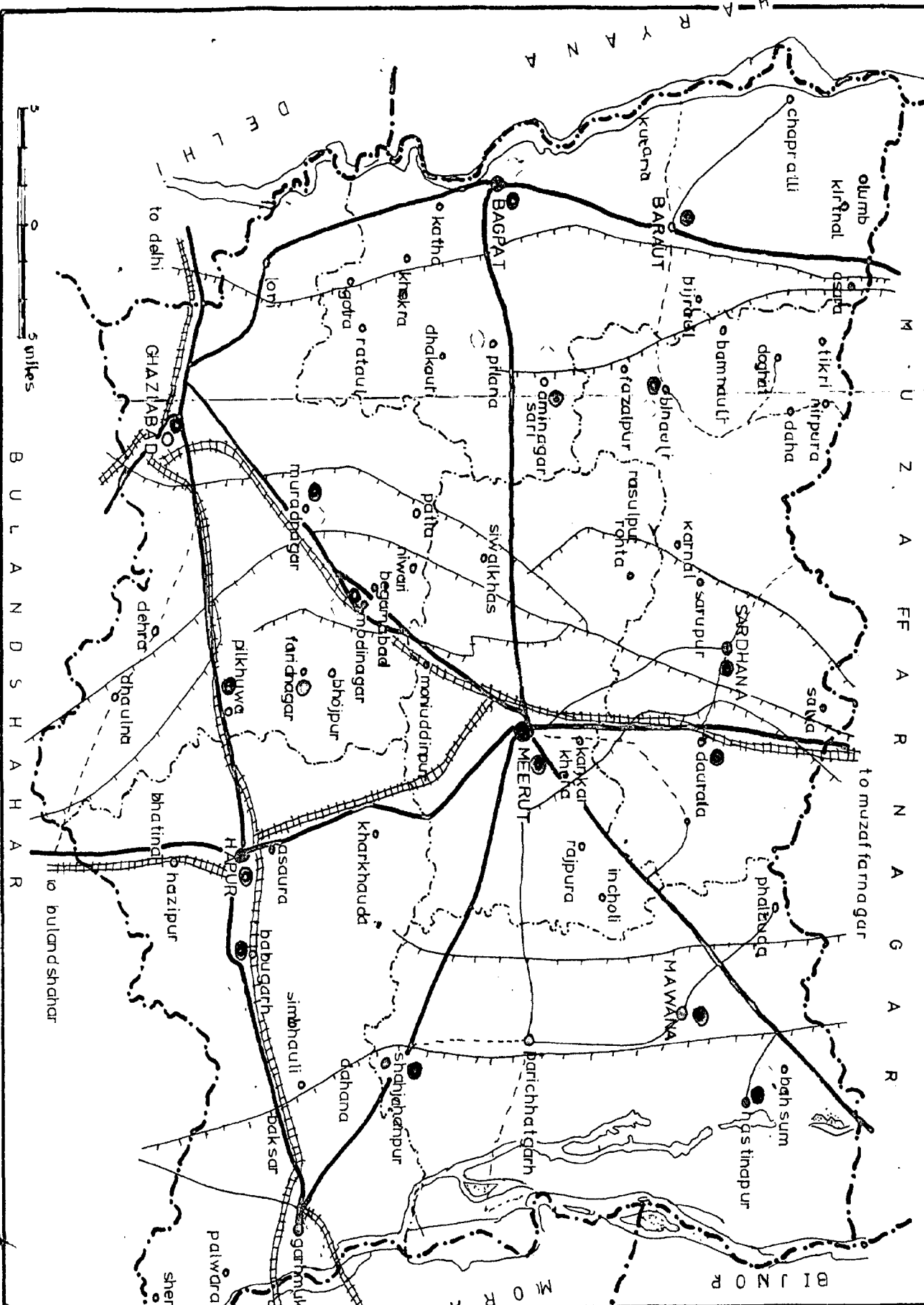


CHART-25

- Chart No. 17 shows Recreation (Rural)  
Chart No. 18 shows Shopping Facilities  
Chart No.19 shows Municipal Boards  
Chart No. 20 shows infra-structure (urban)  
Chart No. 21 shows infra-structure (Rural)  
Chart No. 22 shows Public Building  
Chart No.23 shows Agricultural facilities

#### 4.1.0 CENTRALITY OF SETTLEMENTS IN MEERUT DISTRICT

##### 4.1.1.

Methodological studies dealing with the identification of central place have emphasized the hierarchy of settlements. The hierarchy<sup>of</sup> settlements decided the degree of functional complexities of the settlements. All the settlements perform certain functions and for other functions they are dependent on settlements having them.

##### 4.1.2

The hierarchy of settlements is the product of the centrality of settlements in a district. The centrality in its turn is the outcome of the quantity and quality of central functions performed by a settlement. The central functions are those which by their nature are available in a town settlement but are availed of by a number of settlements.

##### 4.1.3.

Ranking of settlements on the basis of hierarchy of functions is based on operational characteristic of the central place. All functions such as education, health, communication, recreation

commercial, transport are considered to have optimum importance for the purpose of this method, the common observation is that, that function tends to cluster around the central towns of the functional hierarchy. The total number of functions considered for the determination of hierarchy of settlements in Meerut district are 35 level of functional hierarchy, is identified on the basis of threshold to functions in the district settlement system of Meerut.

#### 4.1.4

From this study it emerged that the functions tend to cluster themselves within definite population size groups and tended to form different level of hierarchy. The small towns had the tendency to be found in population size of 5000-20000. The medium town tended to cluster around population size of 20,000 to 1,00,000 and the city i.e. major urban centre at a population of above 1,00,000.

#### 4.1.5.

This is important to mention the fact here that these functions tend to cluster between definite population size groups does not necessarily mean that all settlements within this population size groups will have all the groups of functions at that level of hierarchy. It only means that these functions tend to occur in the settlement system within definite population size groups which are distinguished from each other by a clear gap between these clusters in terms of population size.

#### 4.1.6.

In the Meerut district different levels of functional hierarchy

are identified. After determining the scale of functional hierarchy it is attempted to quantify them by giving appropriate weightage (Refer Table No.21) for each level. The entry points of functions into the district settlement system in terms of population size was considered as the basis. Thus six entry points emerged as the basis of different levels of functional hierarchy. If the entry point in terms of population size is weighted, then the first level as a base is awarded the value of 1. The second value of 2 and 4, the third value of 10 and 20, and the next value is 50 for the population size of 2,50,000 and more.

#### 4.1.7.

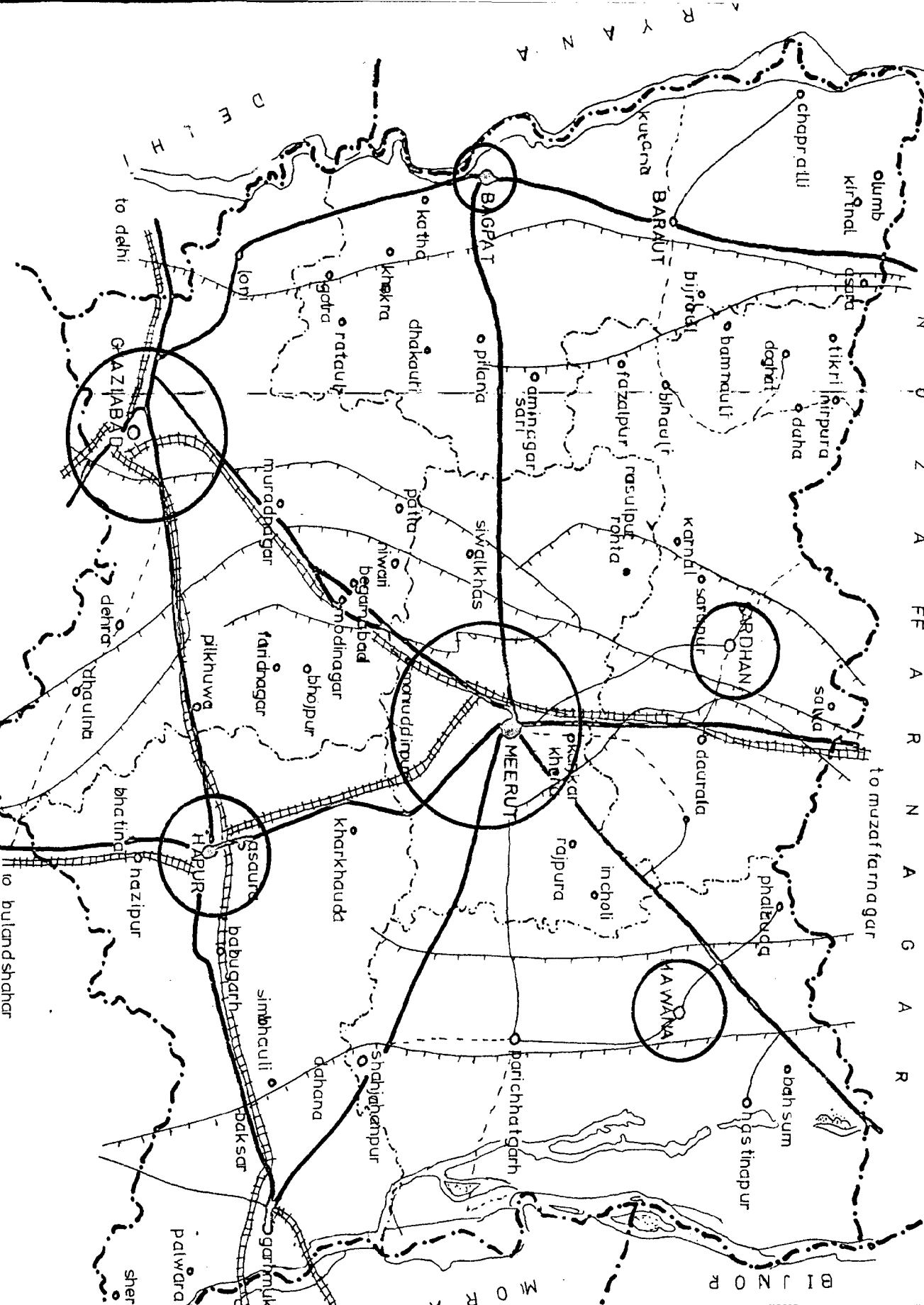
All functions belonging to a particular level were considered to have equal importance. Thus the weightage awarded to a particular level was multiplied by the quantity of a particular function at that particular level in order to arrive at the centrality of settlement having that function. On the basis of this system centrality scores were calculated for the settlements having the population either 5,000 or more.

#### 4.1.8

Chart 24 to 29 shows various levels of functional hierarchy.

# HIERARCHY OF POPULATION SETTLEMENT

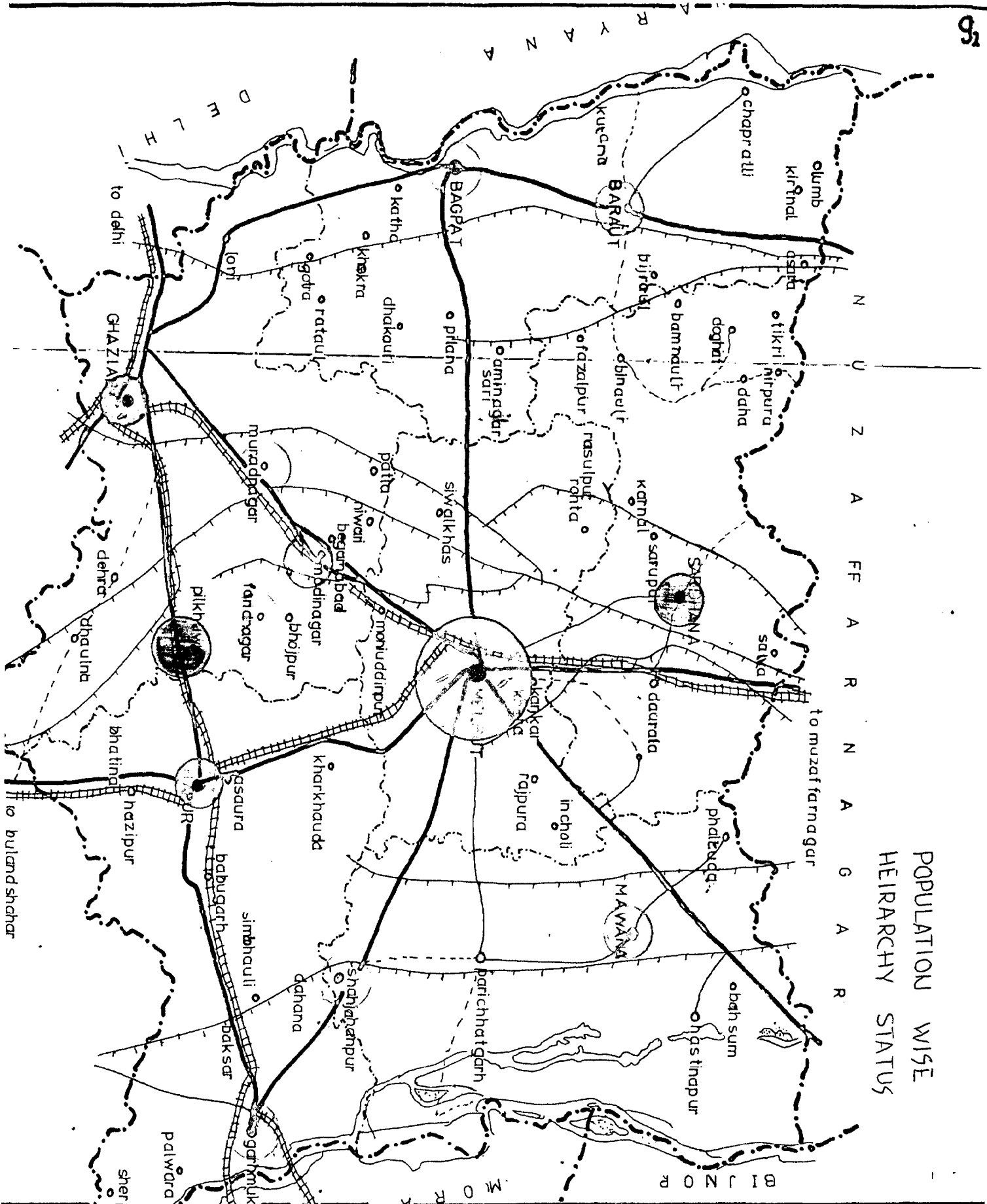
## MAP OF DISTRICT MEERUT



- district boundary
- national highway
- tansil boundary
- railway line
- metal road
- local metal road
- canal

POPULATION WISE  
HEIRARCHY STATUS

MAP OF  
DISTRICT  
MEERUT

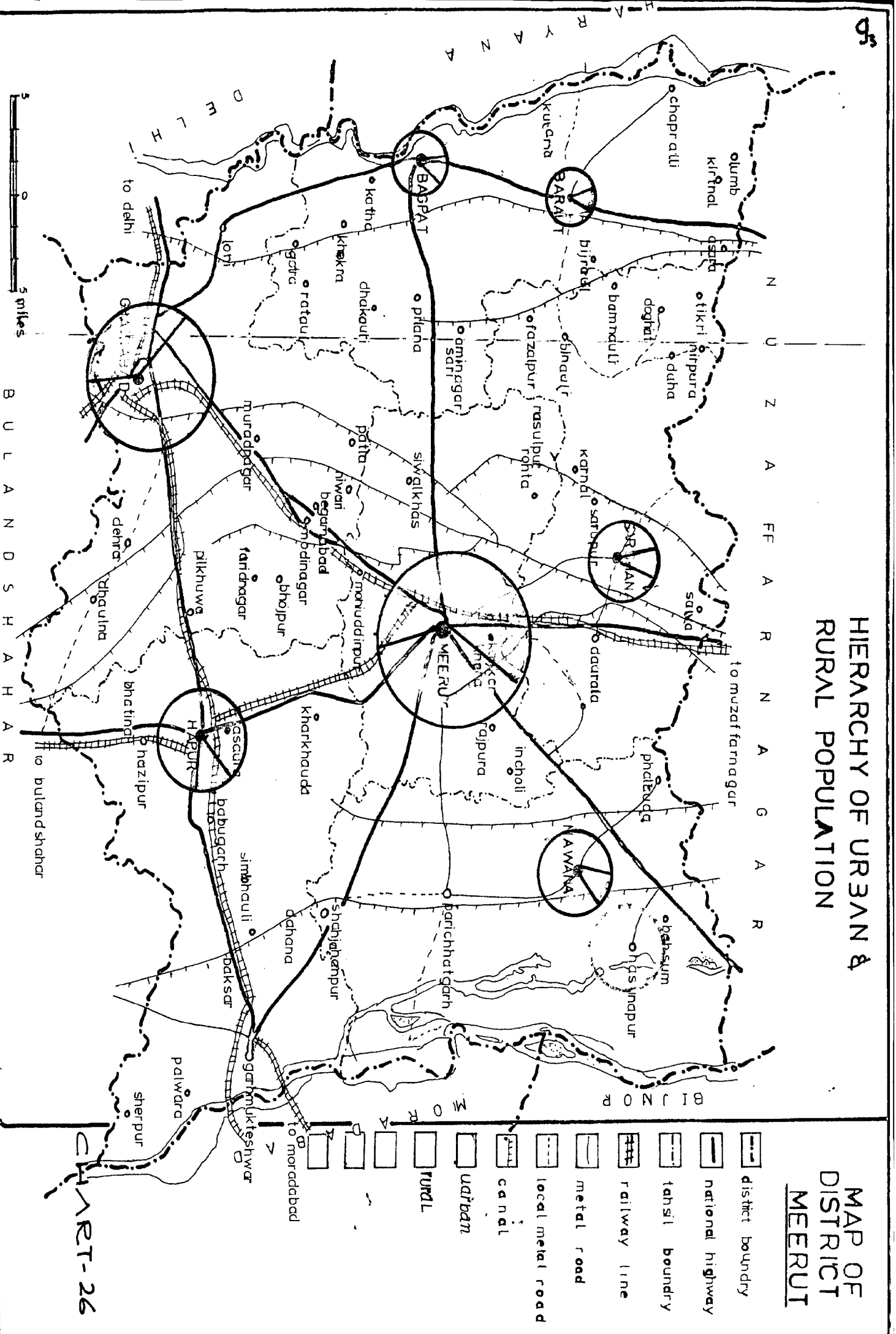


- district boundary
- national highway
- tahsil boundary
- railway line
- metal road
- local metal road
- canal
- 5th above one Lac
- 4th 5000 to one Lac
- 3rd 20000 to 50000
- 2nd 10,000 to 20,000
- 1st 5,000 to 10,000
- to moradabad



# HIERARCHY OF URBAN & RURAL POPULATION

## MAP OF DISTRICT MEERUT

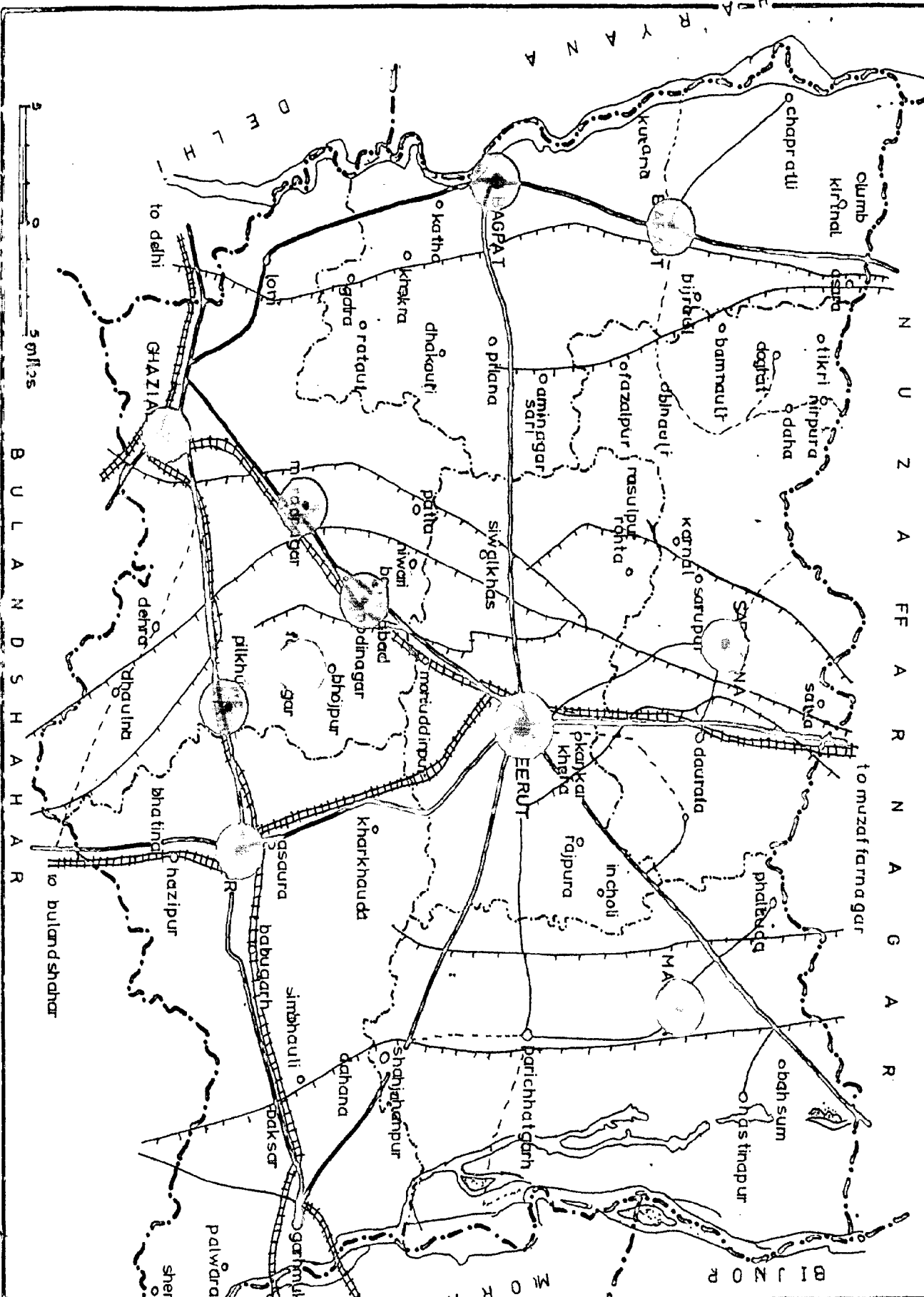


- district boundary
- national highway
- tahsil boundary
- railway line
- metal road
- local metal road
- canal
- urban
- rural

CHART-26

# HIERARCHY OF DENSITY / 50.MILE

## MAP OF DISTRICT MEERUT

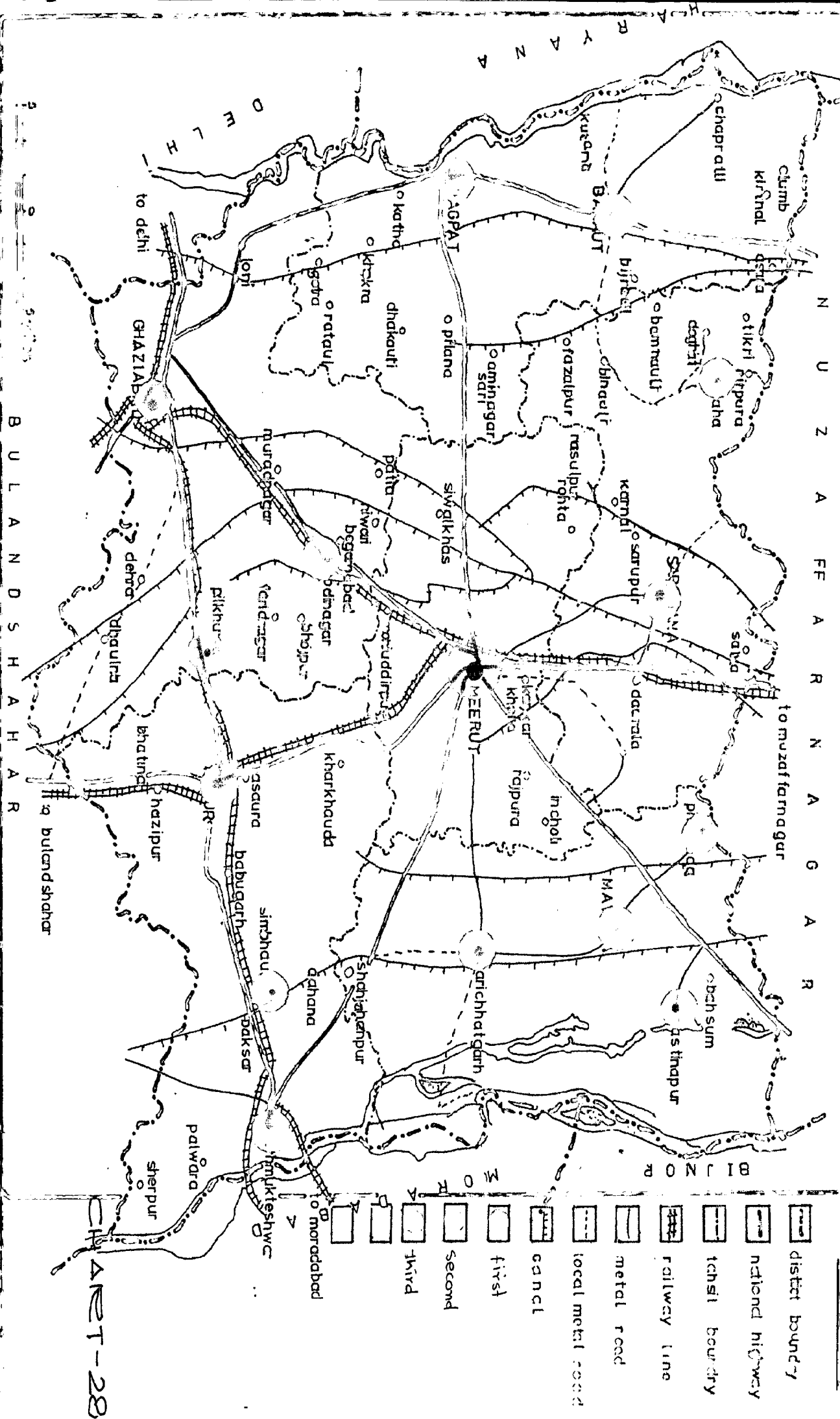


- district boundary
- national highway
- tehsil boundary
- railway line
- metal road
- local metal road
- canal
- 2nd. 5 to 10 thousand
- 3rd. 10-50 thousand Density / sq. miles
- 4th. 50,000 to one lack
- 5th above one lack
- to moradbad
- to moradbad

CHART-27

BASIC GROWTH CENTRE

MAP OF DISTRICT MEERUT



to delhi  
to muzaffarnagar  
to moradabad

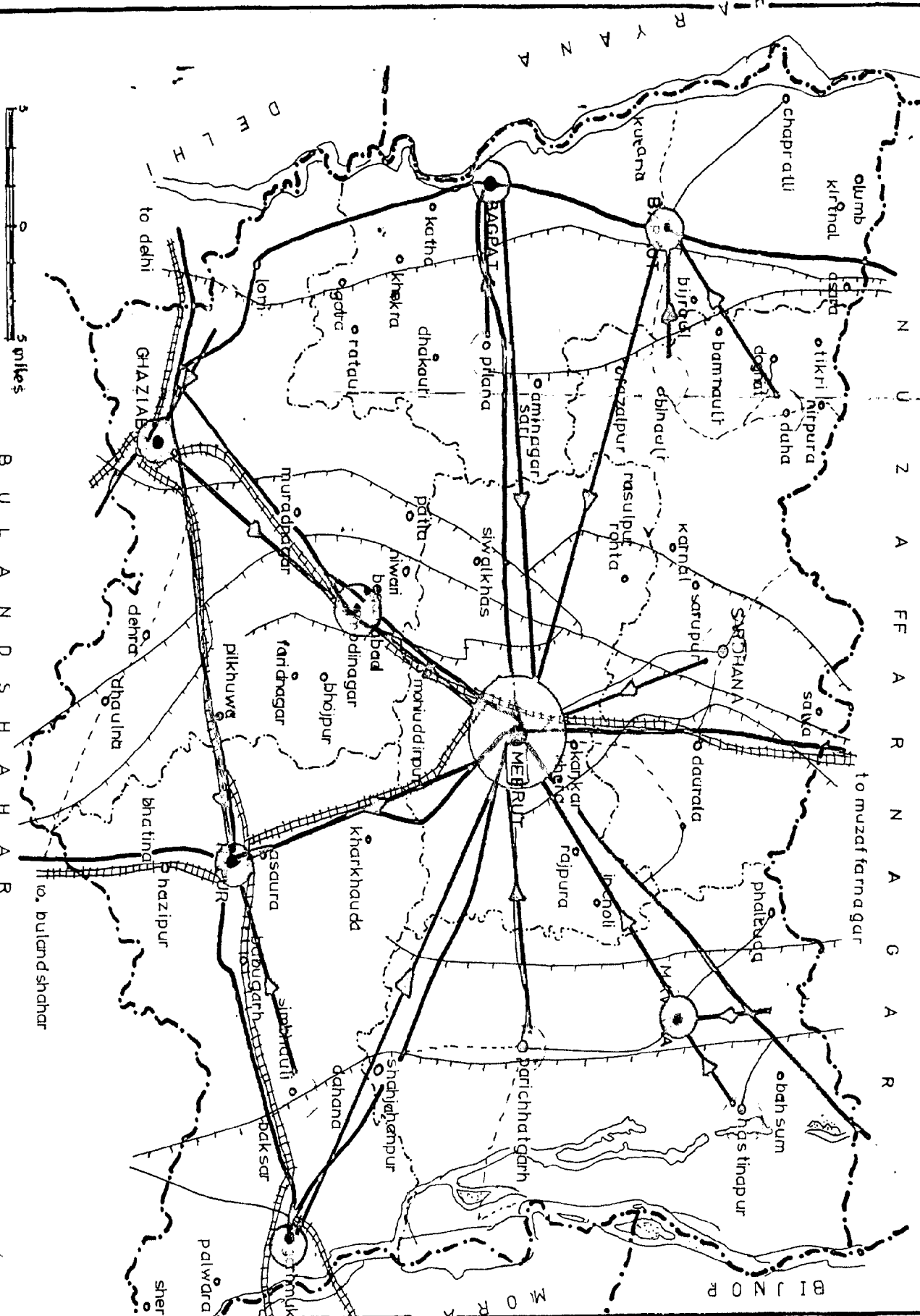
to bulandshahr  
to ghaziabad  
to bulandshahr

to moradabad

- district boundary
- national highway
- tehsil boundary
- railway line
- metal road
- local metal road
- canal
- first
- second
- third

PROPOSED EXISTING  
HIERARCHY OF MARKETING  
CENTRE

MAP OF  
DISTRICT  
MEERUT

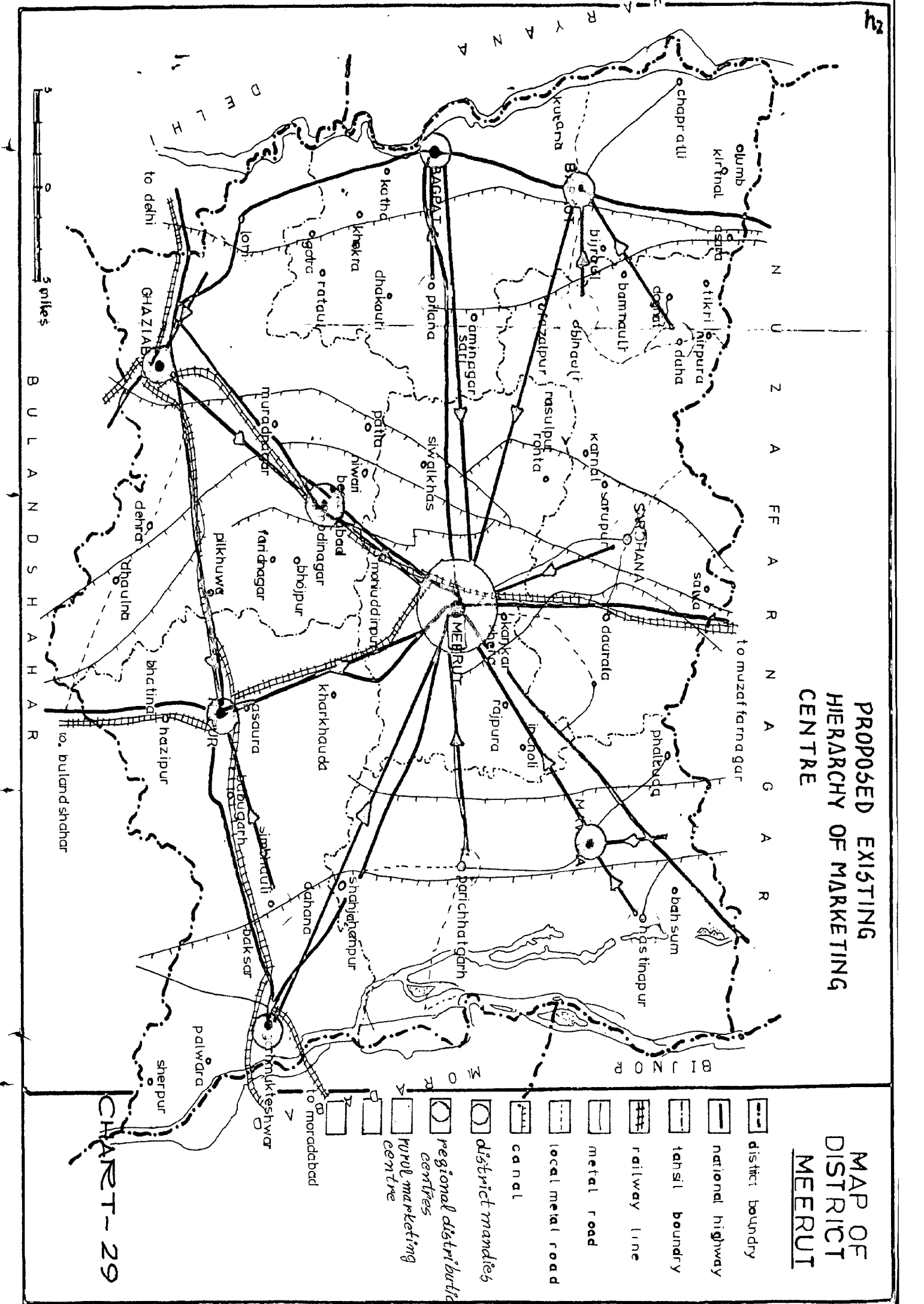


- district boundary
- national highway
- tahsil boundary
- railway line
- metal road
- local metal road
- canal
- district mandies
- regional distribution centres
- rural marketing centre

CHART-29

5 miles

B U L A N D S H A H A R



POINTS AWARDING CRITERIA

Facility/Amenity 1.	XPoints Awarded X Marks/ No. X 2.	XApprox. Population of Settle- Xment where they tend to Xcluster 3.
Population	1	5000
Post office/Telegraph Office	1*	5000
Telephone Exchange	2	10000
Secondary Industries	1	5000
Tertiary	2	10000
Jr.High School	1	5000
Higher Secondary School/ Inter College	2	10000
Degree College	5	25000
Tech.College	10	50000
University	50	250000
Dispensary/P.H.C.	1	5000
Sub-Hospital	2	10000
Hospital	5.10	50000
Sub-Shopping	1	5000
Sec.Shopping	2	10000
Main Shopping	5	25000
Mandi	10	50000
Bus Stop	11	5000
Bus Stand	5	25000
Bus Terminal	20	100000
Railway Station	5	25000
Junction	20	1000000

	X	X
1.	2.	3.
Cinema	5	25000
Police Station	1	5000
Police Office	50	250000
Stadium	50	250000

1 For Branch Post Office

2 For Sub Post-office

5 For Main Post Office

Sources District Mand Book 1961 & 71, Moorut Distt.

Name	Pop.	Shopping		Reg.		Sec.		A.D.M.		Transport		Eng. St. Bldg.
		Sp. Hos.	Mar ket	Mandi	Cine ma/ any oth.	Pol. Stn./ S.P. Ofc.	Tech./ H.O./ MKO	Road ways	Rly			
Moorut	30	7H	4H	2	CC 2 FRGD 1 Std.	2 PS 1 T	1 D	1R 4St.	1R		E, WS	
Mowana	2	-	1S	-	-	1 PS 1 MB		1St.	1R		E, WS	
Mogur	2	2B	1M	1	1	1 PS T, MB		1 St.	1R		E, WS	
Ganauttochwar		-	1S	1	-	1 PS T, MB		1 St.	1R		E	
Daghpot	2	-	1M	-	-	1 PS T		1 St.	1R		E	
Daxat	10	1S	1S	1	1	1 PS, MB		1 St.	1R		E	
Charlabad	11	2B 1S	1S	1	2	1 PS, Teh. MB		1 St.	1R		E, WS	
Medinagar	13	1H	1M	1	2	1 PS, Teh. MB		1 St.	1R		E, WS	
Pilkhawa	4	1M	1S	-	-	1 PS, MB		1 St.	1R		E, WS	
Murodnagar	13	-	1Sc.	-	-	1 PS, MB		1 St.	1R		E, WS	
Vasindagar		-	-	-	-	-		1 St.	1		E	
Shohaj chon pur	-	-	-	-	-	1 PS		1 St.	-		E	
Sardhana	20.2	1S	1Sc.	1	1	1 PS, Teh.		1 St.	1R		E, WS	
Kalla		-	1S	-	-	1 PS, MB		1 St.	1R		E	
Mastinagar	17.	1B	1S	1	-	1 PS, MB		1 Sp.	1R		E.	
Amalnagar Sarai		-	1S	-	-	1 PS,		1 Sp.	1R		E.	
Jovar	1.0	-	1S	1	-	1PS		1Sp.	1R		E	
Daurada	170	1B	1S	1	-	1PS,		1 Sp.	1R		E.	
Chaur	170	1B	1S	1	-	1PS.		-	1R		E	
Bakauti	100	1B	1S	1	-	1 PS		1Sp.	1R		E.	
Kaouadi	100	1B	1S	1	-	1 PS		1 Sp.	1R		E	
Kichero	4.10	-	1S	1	-	1 PS		1 Sp.	1R		E	
Pilana	100	-	-	-	1	1 PS		1 Sp.	1R		E	
Diamli	1, 10	-	-	-	-	1 PS		1 Sp.	1R		E	

## CHAPTER FIVE

### 5.0.0 FINDINGS OF ANALYSIS

#### 5.0.1. SETTLEMENT STRUCTURE V/S INFRA-STRUCTURE INTERDEPENDENCE

The level of infra-structure development in a settlement is a direct function of the activities performed in any settlement. The evaluation of this interdependence and its overall implications on the development - present and potential - of a settlement in particular and its level in the overall settlement hierarchy of the district has to be analysed.

A set of comparative indices of the infra-structure facilities existing in small and medium towns in the district, has, therefore, been evolved on a proportionate population planning unit to set up an optimisation objective. Table 23 gives the individual indices, for various infra-structure facilities, evolved by computing the relationship of development points as against a unit population of 1000, existing in the small and medium town. Maximum and minimum level of indices have been underlined in respective columns as far instance, the maximum communication index 0.830 is for Shahjahanpur and minimum 0.084 is for Hapur (Col. 4 of Table 23).

#### 5.0.2

The interpolation of the above infra-structure indices has been graphically represented for all the small and medium towns in Graph No 30 . On an appraisal of Graph No. 30 the following facts became apparent; so far as development of infra-structure facilities and consequently a balanced growth of district is concerned.



## 5.0.3.

Morut district (curve 'N') as a whole is under-developed and the gap and potentiality of its entire development to an optimization objective is more than 70%.

## 5.0.4.

The development of Morut district and its constituent small and medium towns is unbalanced, which has led to retardation of its overall enhanced development, as revealed by the disposition of the curve 'n' and curve 'n' to curve 'n' in the Graph 3D.

## 5.0.5

Karadnagar (Curve 'k') is over-developed industrially, although it lacks entirely in recreation facilities, and shopping facilities, and shopping facilities need augmentation to the tune of more than 80% to bring it to an optimization level.

## 5.0.6

Muzna (Curve 'b'), Gashmaktochar (Curve 'n'), Baghat (curve 'f') and Poridnagar (Curve 'l') have disproportionate development in communications and transportation as compared to the development of their industrial, shopping, recreation and security facilities.

## 5.0.7

Dhohjhanpur (Curve 'm') is over-developed disproportionately in communication and educational facilities as compared to its industrial and shopping, health and recreation facilities which are non-existent.

NOTATIONS USED IN TABLE NO. 21Area

H = Hectare

Sq.Km. = Square Kilometre

Communication

P.O. = Post Office

T.O. = Telegraph Office

Tele.Ex = Telephone Exchange

Agriculture

Agr.Facil = Agricultural Facilities

T.Wells = Tube wells

Industries

C.Indus = Cottage Industries/Household Industries (Primary Industries)

Ind.S.Scale = Small Scale Industries (Secondary industries)

Heav.Ind. = Heavy Industries (Tertiary Industries)

Educational

Jr.H.S. = Junior High School

Hr.H.S. = Higher Secondary School

Col. = College

P.G. = Post-graduate College

Med. = Medical College

Tch. = Technical College

Univ = University

Health

Disp = Dispensary

Hos. = Hospital

## 3.0.3.

Meerut district (curve 'H') as a whole is under-developed and the gap and potentiality of its entire development to an optimisation objective is more than 70%.

## 3.0.4.

The development of Meerut district and its constituent small and medium towns is unbalanced, which has led to retardation of its overall enhanced development, as revealed by the disposition of the curve 'n' and curve 'a' to curve 'm' in the Graph 3D.

## 3.0.5

Muzaffargarh (Curve 'k') is over-developed industrially, although it lacks entirely in recreation facilities, and shopping facilities, and shopping facilities need augmentation to the tune of more than 80% to bring it to an optimisation level.

## 3.0.6

Muzaffargarh (Curve 'b'), Gashmarkotahar (Curve 'a'), Bahapat (curve '2') and Parichanagar (Curve '1b') have disproportionate development in communications and transportation as compared to the development of their industrial, shopping, recreation and security facilities.

## 3.0.7

Dhohjhanpur (Curve 'm') is over-developed disproportionately in communication and educational facilities as compared to its industrial and shopping, health and recreation facilities which are non-existent.

**5.0.8**

A close study of Graph No.3D makes self evident the present disproportionate growth of the small and medium towns in Meerut District and the scope for their future balanced development to bring them at par to a optimisation functional growth level in their individual level of settlement hierarchy.

Loc.	Popu.	'Post	'Tele	'Soc.	'For. Jf.	'Coll.	'P.S.	'Mod.	'Hot	'di	'ma	'Pol.	'S.P.	'H.	'Dye	'Stop	'Station	'Total	
		'Office	'graph	'Indus.	'Indus.	'Indus.	'og.	'og.	'og.	'og.	'og.	'og.	'og.	'og.	'og.	'og.	'og.	'og.	'og.
Moorat	73	10	10	3	26	19	28	20	30			4	50	50	50	20		491	
Mavani	5	1	2	2	1	4	2	0	0			1	-	10	20	5		79	
Mapur	10	2	2	2	3	10	5	2	-			3	-	20	5	5		60	
Gairambondhar	2	2	2	2	1	2	1	2	-			1	-	5	5	5		20	
Dohpat	2	2	2	2	3	2	2	4	-			1	-	20	5	5		33	
Daraut	6	3	2	2	1	4	4	0	2			1	-	5	5	5		57	
Ghoatehad	20	4	3	2	34	28	15	2	7			1	-	20	5	20		175	
Radinagar	9	4	3	2	5	10	3	0	3			1	2	20	5	5		93	
Harodnagar	5	3	3	2	2	2	2	0	-			1	-	5	5	5		49	
Pilkhao	3	3	3	2	8	12	3	4	-			1	-	5	5	5		56	
Poridnagar	2	1	1	-	-	2	1	4	-			-	-	-	5	-		17	
Sarkhana	4	3	2	2	1	2	1	4	-			1	-	20	5	5		40	
Shahjohampur	2	3	3	-	-	-	1	0	-			-	-	-	1	-		16	
Koila	2	3	3	2	-	-	1	2	-			1	-	-	5	5		35	
Motnagar	2	3	3	2	4	-	1	4	-			1	-	-	5	5		46	
Ambnagar Saraf	1	1	1	-	-	-	1	4	-			1	-	-	1	5		17	
Jovar	2	1	1	2	-	-	1	4	-			1	-	-	1	5		30	
Dourala	4	3	3	2	2	2	1	6	-			1	-	5	1	5		43	
Chaur	7	11	4	2	1	2	1	6	-			-	-	5	1	-		50	
Shaktavai	6	9	6	2	1	2	1	6	-			1	-	5	1	5		56	
Kaccula	4	0	7	2	-	-	1	2	-			1	-	-	1	-		40	
Kithero	1	1	1	-	-	-	1	-	-			1	-	-	1	5		12	
Vallan	1	1	1	-	-	-	1	-	-			1	-	-	1	5		12	
Dancula	1	1	1	-	-	-	1	-	-			1	-	-	1	5		13	

Loc.	'Popu.	'Post	'Tele	'Soc.	'For. Jf.	'Coll.	'P.S.	'Mod.	'Hot	'di	'ma	'Pol.	'S.P.	'H.	'Dye	'Stop	'Station	'Total	
		'Office	'graph	'Indus.	'Indus.	'Indus.	'og.	'og.	'og.	'og.	'og.	'og.	'og.	'og.	'og.	'og.	'og.	'og.	'og.
Moorat	73	10	10	3	26	19	28	20	30			4	50	50	50	20		491	
Mavani	5	1	2	2	1	4	2	0	0			1	-	10	20	5		79	
Mapur	10	2	2	2	3	10	5	2	-			3	-	20	5	5		60	
Gairambondhar	2	2	2	2	1	2	1	2	-			1	-	5	5	5		20	
Dohpat	2	2	2	2	3	2	2	4	-			1	-	20	5	5		33	
Daraut	6	3	2	2	1	4	4	0	2			1	-	5	5	5		57	
Ghoatehad	20	4	3	2	34	28	15	2	7			1	-	20	5	20		175	
Radinagar	9	4	3	2	5	10	3	0	3			1	2	20	5	5		93	
Harodnagar	5	3	3	2	2	2	2	0	-			1	-	5	5	5		49	
Pilkhao	3	3	3	2	8	12	3	4	-			1	-	5	5	5		56	
Poridnagar	2	1	1	-	-	2	1	4	-			-	-	-	5	-		17	
Sarkhana	4	3	2	2	1	2	1	4	-			1	-	20	5	5		40	
Shahjohampur	2	3	3	-	-	-	1	0	-			-	-	-	1	-		16	
Koila	2	3	3	2	-	-	1	2	-			1	-	-	5	5		35	
Motnagar	2	3	3	2	4	-	1	4	-			1	-	-	5	5		46	
Ambnagar Saraf	1	1	1	-	-	-	1	4	-			1	-	-	1	5		17	
Jovar	2	1	1	2	-	-	1	4	-			1	-	-	1	5		30	
Dourala	4	3	3	2	2	2	1	6	-			1	-	5	1	5		43	
Chaur	7	11	4	2	1	2	1	6	-			-	-	5	1	-		50	
Shaktavai	6	9	6	2	1	2	1	6	-			1	-	5	1	5		56	
Kaccula	4	0	7	2	-	-	1	2	-			1	-	-	1	-		40	
Kithero	1	1	1	-	-	-	1	-	-			1	-	-	1	5		12	
Vallan	1	1	1	-	-	-	1	-	-			1	-	-	1	5		12	
Dancula	1	1	1	-	-	-	1	-	-			1	-	-	1	5		13	

**NOTATIONS USED IN TABLE NO. 21****Area****H = Hectare****Sq.Km. = Square Kilometre****Communication****P.O. = Post Office****T.O. = Telegraph Office****Tele.Ex = Telephone Exchange****Agriculture****Agr.Facil = Agricultural Facilities****T.Wells = Tube wells****Industries****C.Indus = Cottage Industries/Household Industries (Primary Industries)****Ind.S.Scale = Small Scale Industries (Secondary industries)****Heav.Ind. = Heavy Industries (Tertiary Industries)****Educational****Jr.H.S. = Junior High School****Hr.H.S. = Higher Secondary School****Col. = College****P.G. = Post-graduate College****Med. = Medical College****Tch. = Technical College****Univ = University****Health****Disp = Dispensary****Hos. = Hospital**

NOTATIONS USED IN TABLE NO.21 (Contd.)Shopping

Mark. = Market

Recreation

Any oth. = Any other

Sec. = Security

ADM = Administration

Communication

S = Sub-post office

B = Branch Post office

Industries

U = Urban

R = Rural

Educational

P.G. = Post-graduate college

Health

H = Hospital

S = Sub-hospital

Shopping

M = Main market

S = Sub-market (Neighbourhood shopping)

Sc. = Secondarymarket (Zonal Shopping)

Recreation

FRGD = Fair Ground

Std. = Stadium

Security

P.S. = Police Station

S.P.O. = S.P. Office

Railway

J = Junction

R = Ordinary Railway Station

Infra-structure

E = Electrification

W.S. = Water Supply

Administration

Teh = Tehsil

M.B. = Municipal Board

D. = District headquarter

Transport

R = Regional Roadways Terminal

St. = Roadways Stand

Sp. = Stop





GRAPH NO:

# CULTURE FACILITIES

23

TABLE NO:

16

18

SCALE OF INFRASTRUCTURE FACILITIES

1.4  
1.3  
1.2  
1.1  
1.0  
0.9  
0.8  
0.7  
0.6  
0.5  
0.4  
0.3  
0.2  
0.1  
0.0

per plan  
populatio  
optimisat

## LEGEND

- .a. MEERUT
- .b. MAWANA
- .c. HAPUR
- .d. GARHMU-  
KTESHWAR
- .e. SARDHANA
- .f. BAGHPAT
- .g. BARAUT
- .h. GHAZIABAD
- .i. MODINAGAR
- .j. PILKHUVA
- .k. MURAD NGR.
- .l. FARIDNAGAR
- .m. SHAHJAHA-  
NFUR
- .n. MEERUT  
DISTRICT

SHAHJAHANPUR

MURADNAGAR

GARH. MUKT.  
ESHWAR...

BAGPAT

SARDANA

PILKHUVA

FARIDNA-AR

BARAUT

MAWANA

MODINAGAR

DIST. MEERUT  
(OVER ALL)

HAPUR

GHAZIABAD

MEERUT

COMMUNI-  
CATIONS

SECU-  
RITY

CHART NO. 30

5.1.0. CLASSIFICATION OF TOWNS AND THEIR POTENTIAL GROWTH

The analysis of disposition and functioning of various functions in relation to catchment distances, the following three levels of towns are being identified.

5.1.1

Small Town	General population ranging from 5000 to 20,000	The furthest catchment and spread at a maximum distance of 5 miles.
Medium Town	Generally population ranging from 20,000 to 1 lakh.	The medium towns are at a distance of 10 to 15 miles.
Major Town	Generally population above 1 lakh.	The major towns are at a distance of 20-45 miles.

5.1.2.

Application of the above hierarchy in Meerut district, the towns belonging to different levels of hierarchy are as follows:-

TABLE NO. 21  
SMALL TOWNS (5-7 1/2 miles diameter)

S.No	Town	Existing Facilities	Proposed Facilities	Existing Hier. Score	Prop. Hier. Score
1	2	3	4	5	6

DASHPAT

1. Katha	Post office	Local Mandi- Higher Secondary School, Cottages/ Light industry, Electrification Sub-hospital, Rest House, Fair ground, Agro-industries, Storage Facilities.	1	23
----------	-------------	--	---	----

1.	2.	3.	4.	5.	6.
2. Khokha	Electrified, Hospital, Higher Secondary School, Post Office.	Cottage/Light Industries Post House, Fair Ground, Agro Industries, Storage Facilitation.	0	21	
3. Kutana	Electrified, Post office.	Local Mandi, Higher Secondary School, Cottage/Light Industries, Sub-Hospital, Post House, Fair Ground, Agro-industries, Storage Facilitation.	2	23	
4. Kotaul	Post Office	Local Mandi, Higher Secondary School, Cottage/Light Industries, Sub-Hospital, Post House, Fair Ground, Agro-Industries, Storage Facilitation.	2	20	
5. Ananagar Sawal	Post Office, electrified, dispensary	Local Mandi, Higher Secondary School, Cottage/Light Industries, Sub-Hospital, Post House, Fair Ground, Agro-industries, Storage Facilitation.	3	22	
<b>(2) MBERUA</b>					
1. Rohta	Periodical market Block head- quarters.	Local Mandi, Higher Secondary School, Cottage/Light industry, post office, electrified, Sub-hospital, Post House, Fair ground, Agro-industries, Storage Facilitation.	2	20	
2. Sivalkha	Post office, periodical market.	Local mandl, Higher Secondary school Cottage/Light industries, post office, sub-hospital, Post House, Fair ground, Agro-Industries, Storage Facilitation.	2	20	

1	X	2.	X	3.	X	4.	X	5	X	6
3.		Mohiuddinpur	Post office, railway line with station			Local mandi, Higher Secondary School, Cottage/light industries, electrification Sub-hospital, Rest House Fair ground, Agro-industries, Storage facilities.		2		23
<b>(B) HAPUR</b>										
1.		Khar Khauda	Electrified, Post office.			Local mandi, Higher Secondary School, Cottage/Light industries, Sub-hospital, Rest House, Fair Ground, Agro-industries, Storage Facilities.		2		23
2.		Asaura	Electrified Post Office			-00-		2		23
3.		Babugarh	Post office, Telegraph office.			Local mandi, Higher Secondary School, Cottage/Light Industries, Sub-hospital, Rest House, Fair Ground, Agro-industries, Storage Facilities, Electrification		2		23
4.		Hafizpur	Dispensary Post office, Railway line			Local mandi, Higher Secondary School, Cottage/Light industries, Sub-Hospital Rest House, Fair Ground, Agro-industries, Storage Facilities, Electrification		3		25
<b><u>MAWANA</u></b>										
1.		Bahsuma	Post office, Periodical market			Local mandi, Higher Secondary School, Cottage/Light Industries, Sub-hospital, Rest House, Fair Ground, Agro-industries, Storage Facilities, Electrification		2		26
2.		Hastinapur	Local Mandi, Post office			Higher Secondary School, Cottage/Light industries, Electrification, Sub-Hospital, Rest House, Fair ground, Agro-Industries, Storage facilities.		2		26
3.		Parichhatgarh.	Post office Dispensary, Block head- quarters.			Higher Secondary School, Local Mandi, Cottage/light industries, electrification Rest House, Fair ground, Agro-industries, Storage facilities.		4		25

|--|--|--|--|--|--|

**(5) BARDWANNA**

1. Dhalbouddi	Post House, Post office, periodical market	Local mandal, Higher Secondary School, Cottage/light industry Electrification, Sub-hospital, Post House, Fair Ground, Agro-industrion, Storage facilities.	3	25
2. Dourada	Developed		25	50
3. Garuspur	Block head-quarters.	Local mandal, Higher Secondary School, Cottage/light industry Post office, electrification, Sub-hospital, Post House, Fair Ground, Agro-industrion, Storage facilities.	1	26
4. Incholl	Post office periodical market	Local mandal, Higher Secondary School, Cottage/light industry, Sub-hospital Post house, Fair Ground, Agro-industrion Storage facilities.	2	27

**(6) CHARRADAP**

1. Doda	Post office, Higher Secondary School	Local Mandal, Cottage/light industrion, Electrification, Sub-hospital, Post House, Fair ground, Agro-industrion, Storage facilities.	2	26
2. Muradnagar	Developed		25	50
3. Lond	Post office	Local Mandal, Cottage light industrion, Higher Secondary School Electrification, Sub-hospital, Post House, Fair-ground, Agro-industrion, Storage facilities.	1	26

(7) DARAUT

1. <u>Band</u>	Post office, Dispensary, High School	Local mandi, Higher Secondary School, Cottage light industry, electrification, Root House, Fair ground, Agro-industries, Storage facilities.	3	27
2. <u>Chopra</u>	Post office, High School, Dispensary.	-do-	3	27
3. <u>Acara</u>	Post office, High School.	Local mandi, Cottage/ light industry, electrification, Sub- hospital, Root House, Fair ground, Agro- industries, Storage facilities.	3	25
4. <u>Daha</u>	Post office electrified	Local mandi, Higher Secondary School, Cottage/light industry, Sub-hospital, Root House, Fair ground, Storage facilities.	3	26
5. <u>Demauli</u>	Dispensary electrified.	Local mandi, Higher Secondary School, Cottage/light industry Post office, Sub- hospital, Root House, Fair Ground, Agro- industries, Storage facilities.	2	20
6. <u>Dajra</u>	Post office	Local mandi, Higher Secondary School, Cottage/ light industry, Electrification, Sub- hospital, Root House, Fair Ground, Agro- based industries, Storage facilities.	3	26
7. <u>Panapur</u>		Local mandi, Higher secondary school, cottage/ light industry, post office, electrification, Sub-hospital, Root House, Fair ground, Agro- industries, Storage facilities.	-	25

(0) COMMUNITARIAN

1. Shahjoharpur	Post office, electrified, dispensary	Local mandl, Higher Secondary School, Cottage/light industry Root House, Fair ground, Agro-industries, Storage facilitio.	3	20
2. Sanchauli	Post Office, Block headquarters, periodical market	Local mandl, Higher Secondary School, Cottage/light industry, electrification, Sub-Hospital Root House, Fair Ground, Agro-Industries, Storage Facilitio.	3	27
3. Polwar	Post Office, Root House.	Local Mandl, Higher Secondary School, Cottage/light industry, electrification, Sub-Hospital, Fair ground, Agro-Industries, Storage Facilitio.	2	25

(0) MODINAGAR

1. Dalkhwa	Post Office, P.T. Police Station, Dispensary	Local Mandl, Higher Secondary School, Cottage/light industry, Sub-hospital, Root House, Fair ground, Agro-industries, Storage Facilitio.	3	20
2. Bhaulna	Post office, Police Station, Root House, S. Mand quarters, Periodical market	Higher Secondary School, Cottage/light industry, electrification, sub-hospital Fair ground, Agro-Industries, Storage Facilitio.	3	20

MIDRUM TOWNS (10-15 MILES DIAMETER)

S.No.	Town	Existing Facilities	Proposed Facilities	Exist prior 1951	Pro. prior 1951
1	2	3	4	5	6
1.	DAGHPAT Agricultural Town	Mandi (local) Post, Telegraph & Telephone facilities. Inter College Edu. Dispensary Police Station Bank Cinema Fair ground -- Tehsil Headquarter -- Bus Stand Local infra- structure --	Sub-regional Mandi -- Degree College Specialised hospital & Family Planning Centre, Veterinary Development Centre. Fire Fighting Station. Bank (Rural) Auditorium -- Library & Recreational Institute -- Agriculture Research Centre. Roadway Terminal Development. Heavy industries, Court, Store, Canteen.	33	20
2.	MAHMA Agricultural Town.	Mandi (local) Post, Telegraph & Telephone Inter College Dispensary Police Station	Sub-regional Mandi -- Post-graduate college Hospital Fire Brigade Station	79	100





	--	Cinema	
	Bus Stand	Development	
	Bank	Development	
	--	Industries	
3. HAFUR Industrial	Market (Regional)	--	20 229
	Industries	Development	
	Post, Telegraph & Telephone Exchange	--	
	Inter College	Post-graduate college	
	Dispensary	Hospital	
	Bank	Bank (Rural)	
	Police Station	Fire Fighting Station	
	Cinema	--	
	Fair Ground	--	
	Bus Stand	Sub-bus Terminal	
	Local Infra-structure	Development	
	Industries	Development	
	--	Court	
4. BAREILLY	Market (Regional)	--	20 20
	Industries	Development	
	Post, Telegraph & Telephone Exchange	--	
	Inter College	Degree College Polytechnic	
	Dispensary	Hospital	
	Bank	Bank (Rural)	
	Police Station	Fire Fighting Station	
	Fair Ground	--	

	Duo Stand	Sub-regional Terminal	
	Local infra-structure Development,	Court.	
5. CHABIAAD	Mandi (Local)	Sub-regional Mandi	170 210
	Post, Telegraph & Telephone Exchange	--	
	Inter College	Post-graduate College, Technical College	
	Dispensary & Hospital	Hospital, Medical College.	
	Police Station	Development	
	Bank	--	
	Cinema	--	
	Fair Ground	--	
	Duo Stand	Regional Terminal	
	Local infra-structure	--	
	Industries	--	
		Court.	
6. NBRUR	Mandi (Regional)	--	
	Communications	Development	
	Post-graduate, University, Inter College.	--	
	Hospital	--	
	Cinema	--	
	Duo Terminal	--	
	Local Infra Structure	--	
	Industries	--	

7. DARAUF	Post & Telegraph, Telephone Exchange	Development	07	08
	Agro Industries	Heavy Industries		
	Inter College	P.G. College		
	Hospital/Dispensary	Development		
	Market	Mandi (Sub-regional)		
	Cinema	°		
	Fair ground	°		
	Police Station	° Development		
	Bus Station	°		
	Railway Station	°		
8. MODINAGRA	Mandi		08	120
	Light (Heavy Industries)	°		
	Degree College	°		
	Hospital	°		
	Police Station	° Development		
	Bus Stand	°		
	Railway Station	°		
	Post & Telegraph	°		
	Telephone Exchange	°		
	Cinema	°		
		Fire Fighting Station		
		Veterinary Development		
		Control,		
		Cadava		
		Cold Store		
		Agro Industries.		
9. SHARADWATI	Telephone Exchange	°		
	Post & Telegraph	° Development	20	07
	Light Industries	Heavy Industries		
	Inter College	P.G. College		
	Dispensary	Hospital		
	Market	Mandi		
	Police Station	Development		
	Fair ground	Cinema		
	Railway Station	Development		
	Bus Stop	Bus Stop		
		Cadava		
		Agro-Industries.		

**ROADS AND HIGHWAYS DEVELOPMENT:**

Following new roads/highways have to be developed for the better traffic movement and control.

1. Meerut, Amsinagar Sarai, Fazaipur, Baraut Road.
2. Piliara, Rapaul, Ghaziabad Road
3. Mawana, Sardhana, Baraut Road
4. Garhmukteshwar, Parichhatgerh, Mawana Road
5. Baghat, Modinagar, Hapur Road.

CHAPTER SIX6.0 CONCLUSIONS AND RECOMMENDATIONS

## 6.0.1

Large scale migration of people from rural areas to urban centres creates physical, social as well as economic problems in the urban areas. It is, therefore, essential to develop gainful employment in small and medium towns especially in secondary and tertiary sectors. Adequate provision of essential amenities and services has to be made in these urban areas in order that these can retain the appropriate level of function and an appropriate environmental standards.

## 6.0.2

National income derived from agriculture is more in comparison to manufacturing industries as analysed in the Table No. 20. Small towns have large service income as compared with manufacturing income. Therefore, these small towns can be developed as service towns based on the agricultural products. Therefore, if the rural areas are to be revitalised and occupational pattern to be diversified, the manufacturing activities based on agriculture products should be infused in these small towns which will act as service towns for these villages i.e. agri-based industries such as fibre based industries, sugar cane crushers and mills, flour grinding mills, storage facilities, household manufacturing industries based on local materials available, cooling gas plants.

## 6.0.3

Planning and investment on many of these sectors is at present confined at national level and in some cases at State level.

and Ghaziabad in second order which has scoring between 50 to 100 points medium towns i.e. Sarhana, Mawana, Bagpat, Dargut, Meerut, Ghaziabad, Garhmukteshwar, Hapur, Modinagar and in the third order of hierarchy are those towns which have scoring between 20 to 49 points i.e. and IV order of hierarchy which has scoring below 20 points. To channelise the urbanisation and a balanced growth, it is essential to develop small and medium towns, which have scoring between 20 to 100 after seeing their potentials of growth.

#### 6.0.7

Thus, in Meerut district 9 medium size towns and 40 small towns should be developed. Out of 9 medium towns, 3 towns are fully equipped with the amenities, while six are partially developed, which should be provided with the sufficient amenities. Out of 40 small towns, 15 towns are fully developed, 10 are partially developed and 15 are under-developed. Therefore these towns are suggested to be developed after analysing their potentialities.

#### 6.0.8

The small towns which are proposed to be developed by upgrading the village settlements, not only as centres of primary marketing and industrial development, but also as centres for the disposal of essential rural services and as nodes of regional intercommunication. About 40 small towns will develop in the form of economically sized agglomerations for dispensing developmental services to the rural areas and will be the hub of planning and development in the whole district.

6.0.0

The per capita income (1961) of the district is Rs.310 and is well above the average per capita income of the State (Rs.200.00) and is much below the per capita income of Rs.240.00 recorded at Delhi Metropolitan area. The district has ample resources, both man and material, but in spite of rapid development of industrial and commercial economies in part of district, it is mainly dependent on a well developed agricultural economy. This has given rise to the growth of well dispersed urban economies in the district in comparison with the N.C.R. (National Capital Region).

6.0.10

Most of the urban centres lack affluence in production income and employment opportunities resulting in the migration of rural and urban man power to Delhi. This deprives the district's potential working force and hampers their economic growth.

6.0.11

In order, therefore, to extend the district's economy to derive full benefit of its productive potential, it is necessary to link up agricultural development with the development of marketing industry, trade and commerce, communication, and infra-structural and administrative services within the district and also to relate the local economy to external regional economies.

6.0.12

10 percent of the workers in Meerut district are engaged in manufacturing industrial activities at present. Within the

urban sector the proportion of manufacturing industries is likely to go up and measures should be taken to plan the development accordingly. Meerut, Ghazipur, Hapur have been singled out as major growth centres in the district for future development of industries. The minor growth centres which have been selected for industrial development are such as Madanagar, Baraut, Haryana, Daghpat, Sarhana and Garkhachwar.

6.0.11

In the towns the following infra-structural services should be improved or created ~~if~~ where not already available i.e. accessibility by rail and road, railway siding and goods handling facilities, truck terminals and easy road routes, telephone trunk facilities, commercial warehousing, space for whole-sale market, residential accommodation.



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