

## **Appendix No.2**

### **OUTLINES OF MEERUT BASED ON NCR PLAN AND MASTER PLAN**

#### **1. NATIONAL CAPITAL REGION**

National Capital Region was created by Parliamentary Act of 1985, covering an area of 30,242 Sq.kms. as per the 2001 plan which has been increased to 33,578 Sq.kms. in 2021 plan. NCR includes part of U.P., Haryana, Rajasthan and N.C.T. Delhi.

The Regional Plan 2021 for National Capital Region has been prepared and notified on 17.09.05 under section-13 of National Capital Region Planning Board Act, 1985. Main features of the Regional Plan 2021 and the copy of the NCR PB Act, 1985 are available at Meerut Development Authority.

#### **2. CONCERN MAPS OF NCR TO BE USED FOR PLANNING OF A ZONE OF ANY METRO CITY OF NCR; LIKE MEERUT**

1. Regional Plan of NCR-Sub Region U.P. 2021 AD  
(Physiography and slope)  
*(Appendix no.3)*
2. Regional Plan of NCR-Sub Region U.P. 2021 AD  
(Lithology)

- (Appendix no. 4)*
3. Regional Plan of NCR-Sub Region U.P. 2021 AD  
**(Geomorphologic Units)**
- (Appendix no. 5)*
4. Regional Plan of NCR-Sub Region U.P. 2021 AD **(Ground Water Prospects)**
- (Appendix no. 6)*
5. Regional Plan of NCR-Sub Region U.P. 2021 AD **(Land Use 1999)**
- (Appendix no. 7)*
6. Regional Plan of NCR-Sub Region U.P. 2021 AD **(Policy Zones)**
- (Appendix no. 8)*
7. Regional Plan of NCR-Sub Region U.P. 2021 AD **(Existing Settlement Pattern 2001)**
- (Appendix no. 9)*
8. Regional Plan of NCR-Sub Region U.P. 2021 AD **(Existing Transport Network (Roads) 2002)**
- (Appendix no. 10)*
9. Regional Plan of NCR-Sub Region U.P. 2021 AD **(Proposed Settlement Pattern 2021)**
- (Appendix no. 11)*
10. Regional Plan of NCR-Sub Region U.P. 2021 AD **(Proposed Transport Network (Rail) 2021)**
- (Appendix no. 12)*
11. Regional Plan of NCR-Sub Region U.P. 2021 AD **(Ground Water Rechargeable Areas)**
- (Appendix no. 13)*
12. Regional Plan of NCR-Sub Region U.P. 2021 AD **(Status of Ground Water Availability)**
- (Appendix no. 14)*

13. Regional Plan of NCR-Sub Region U.P. 2021 AD (**Seismo – Tectonic Features**)

*(Appendix no. 15)*

14. Regional Plan of NCR-Sub Region U.P. 2021 AD (**Proposed Land Use 2021**)

*(Appendix no. 16)*

15. Regional Plan of NCR-Sub Region U.P. 2021 AD (**Counter Magnet Towers**)

*(Appendix no. 17)*

### **3. HISTORICAL PERSPECTIVE:**

1. Historical city – dating back to Ramayana and Mahabharata
2. In 1806 the cantonment was established.
3. Declared as District HQ in 1818.
4. The birth place of the Indian mutiny of 1857.
5. It is the largest town in Western Uttar Pradesh.
6. Second largest city under NCR.
7. Headquarter of Meerut division comprising five districts.
8. Emperor Ashoka – 1400 BC.
9. Some buildings of Harappa time.
10. Mayrasta father of the Mandodri (wife of Ravan). On this name of the City became Meerut.
11. 10<sup>th</sup> century Raja Hardutt

12. 11<sup>th</sup> century Jama Masjid

13. Firozshah Tuglaq in 1364 shifted a pillar to Delhi

Meerut is surrounded by a wall but mostly demolished with 9 gates; some of them are: Delhi gate, Lisari gate, Baghpat gate, Bhudhana gate, Sapeer gate, Kambo gate and some others.

#### **4. FOCAL POINTS:**

(1) Ghanta ghar, (2) Suraj Kund, (3) Nauchandi Fair, (4) Kali Paltan Temple, (5) Saradhna Church, (6) Hashtinapur Fort, (7) Bhashali ground (Ashoka Kilat), (8) Pura Mahadev Temple, (9) Gagol, (10) Bholley Ki Jhal (Ganga Kanal)

#### **5. ROADS & RAILWAYS LINKAGES**

Details have been given in separate part.

#### **6. PROVISIONS AS GIVEN IN MEERUT MASTER PLAN IN TABULAR FORM**

**(Appendix no. 18)**

Table No. 1: Meerut Metro City; its population and growth (1901-2001)

Table No. 2: Description of Industrial Unit of Meerut City

Table No. 3: Distribution of Offices in Meerut City

Table No. 4: Details of present different Educational Institutions in Meerut City – 2002

Table No. 5: Details of available different Health facilities in Meerut City – 2002

Table No. 6: No. of working employees in urbanized area of Meerut

Table No. 7: Demand of Educational & Health Centre upto 2021 AD

Table No. 8: Demand for Residential Unit of Income Group wise

Table No. 9: Description of proposed land use in Meerut Master Plan 2021

Table No.5.8: Workers participation ratio in selected towns of UP Sub Region (1981-91)

## **7. FACTORS & COMPONENTS TO LOCATE NEW CITY/ CITIES**

- 1.** Urban extension as shown in the Master Plan of Meerut city
- 2.** Ground water prospects
- 3.** Policy zone as per NCR
- 4.** Existing settlements pattern – 2001
- 5.** Proposed settlements pattern – 2021
- 6.** Existing Transport Network (Roads) – 2008
- 7.** Existing Transport Network (Rail) – 2008
- 8.** Proposed Transport Network (Roads) – 2021
- 9.** Proposed Transport Network (Rail) – 2021
- 10.** Ground Water Rechargeable Areas

11. Status of Ground Water Availability
12. Seismo-Tectonic features
13. Proposed Land Use 2021 AD as given in NCR Plan
14. Effects of Ganga Expressway
15. Upper Ganga Dedicated Rail Freight Corridor
16. Peripheral Expressways including Delhi, Ghaziabad, Meerut, Expressway.
17. Special Economic Zone
18. Impact of Higher Education Zone (ii) Manufacturing (iii) Sugar (iv) Sports (v) Information Technology (vi) Cargo

## **8. COMPONENTS OF FINAL OUTPUT**

### **1. New Housing**

(i) Housing for Urban poor through Slum & JJ approaches, (ii) Houses on Independent Plots & Redevelopment, (iii) Group Housing, (iv) Employer Housing, (v) Unauthorized Regularized Colonies, (vi) Other Housing areas Up-gradation of Old areas Traditional/Villages;

### **2. Physical Infrastructure**

(i) Augmentation of water distribution, (ii) Construction of new treatment plants, (iii) Augmentation of sewerage T Plants, (iv) Construction of new sewerage treatment

plants, (v) Augmentation of power distribution system, (vi) Development of sanitary landfill sites, (vii) Construction/development of compost/incineration plants (viii) Municipal Solid Waste

### **3. Social Infrastructure**

**3.1 Health** - (i) Hospital A (501 beds & above), (ii) Hospital B (201 beds to 500 beds), (iii) Hospital C (101 beds to 200 beds); (iv) Hospital D (Up to 100 beds), (v) Veterinary hospital.

**3.2 Education** – (i) School for physically handicapped, (ii) School for mentally handicapped, (iii) Vocational Training Centre, (iv) General college, (v) Professional college, (vi) Medical college, (vii) Nursing and Paramedic Institute, (viii) Training-cum-Research Institute in Veterinary Sciences.

**3.3 Communication** – (i) Head Post Office – Administrative Office, (ii) Telephone Exchange.

**3.4 Security-Police** – (i) Police Station, (ii) Police line, (iii) District Jail, (iv) District Office and battalion, (v) Police training institute / college, (vi) Traffic and police control room.

**3.5 Safety-Fire** – (i) Fire Station, (ii) Disaster Management Centre, (iii) Fire Training Institute,

**3.6 Socio-cultural facilities** – (i) Multipurpose community

hall, (ii) Community Recreational Club, (iii) Recreational Club, (iv) Socio Cultural Activities Centre, (v) Exhibition sites.

3.7 **Other community facilities** – (i) Old Age Home, (ii) Working women hostels, (iii) Night Shelters, (iv) Orphanage, (v) Religious premises, (vi) Cremation grounds, (vii) Cemetery / burial grounds;

#### **4. Trade and Commerce**

(i) **Metropolitan City Centre**; (Preparation of integrated schemes & specific projects); (ii) **District Centre/Sub CBD** – (Up gradation of existing areas & New locations in urban extension); (iii) **Community Centre** - (Up-gradation of existing areas, & New locations in urban extension/projects);

#### **5. Transport**

(i) MRTS, (ii) Construction of grade separators, (iii) Development of Urban relief roads, (iv) Construction of interstate bus terminals, (v) Construction of Metropolitan Passenger Terminals, (vi) Integrated Freight Complexes, (vii) Petrol Pumps & CNG stations, (viii) Parking facilities including automatic multi level car parking.

#### **6. Restructuring along MRTS Network**

(i) Up-gradation of existing areas, (ii) New locations in Urban extension;

## **7. Industries**

(i) Redeveloped/Up gradation, (ii) New locations in urban extension;

## **8. Government Offices/District Court**

(i) Redeveloped/Up gradation, (ii) New locations in urban extension;

## **9. Environment**

(i) City park, (ii) District Park, (iii) Community Park, (iv) City Multipurpose ground, (v) District Multipurpose ground, (vi) Community Multipurpose ground, (vii) Divisional Sports Centres, (viii) Community Sports Centres

## **9. REVISED DENSITY, GROUND COVERAGE & FAR<sup>1</sup>**

### **Fixation of Population Density**

<b>S. No.</b>	<b>Area of Plot (in sqmt)</b>	<b>No. of permissible units</b>
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<sup>1</sup> These are under modifications / changes

1.	Up to 50	1
2.	50 to 200	2
3.	200 to 300	3
4.	300 to 500	4

Net residential density proposed for plotted development & Group Housing Society.

<b>Provision</b>	<b>Present Standard (man per hectare)</b>	<b>Proposed Amendment (man per hectare)</b>
Plotted development	Maximum 600	30% growth (maximum 750)
Group Housing	Maximum 750 (150 units per hectare)	30% growth (maximum 1000) (200 units per hectare)

Proposed amendment as per 'National Building Code'

<b>S. No.</b>	<b>Land Use &amp; Level</b>	<b>Maximum Ground Coverage</b>		<b>Maximum FAR</b>	
		<b>Present</b>	<b>Proposed</b>	<b>Present</b>	<b>Proposed</b>
<b>1.</b>	<b>Residential</b>				
1.1	Plotted residential	65	65	2.00	2.00
1.2	Group Housing	35	35	1.50	2.50
<b>2.</b>	<b>Commercial</b>				
2.1	General commercial				
(a)	Convenience shopping	60	50	1.20	1.50
(b)	Bazaar street	60	50	1.20	1.50
(c)	Neighborhood / Sector Shopping Centre	50	40	1.50	1.75
(d)	Zonal Shopping Centre	40	35	1.50	2.00
(e)	City Centre	30	30	2.00	3.00
<b>2.2</b>	<b>Hotel</b>				
(a)	Up to 3 star	40	40	1.20	1.50
(b)	5 star and above	30	30	2.00	2.50
<b>2.3</b>	<b>Wholesale Commercial</b>				
(a)	Grain Market	35	35	Not	1.00

S. No.	Land Use & Level	Maximum Ground Coverage		Maximum FAR	
		Present	Proposed	Present	Proposed
				fixed	
(b)	Fruit & Vegetable Mandi	40	40	Not fixed	1.00
(c)	Other Wholesale Profession	60	50	Not fixed	1.50
<b>2.4</b>	<b>Storage</b>				
(a)	Godown	40	40	Not fixed	1.20
(b)	Building Construction Material Yard	30	30	Not fixed	0.60
<b>3.</b>	<b>Offices</b>				
3.1	Govt. & Semi-Govt.	35	35	2.00	2.00
3.2	Professional / Commercial Offices	30	30	2.00	2.50
<b>4.</b>	<b>Industrial</b>				
4.1	Flatted Factories	50	50	1.00	1.20
4.2	Small & Light Industries	80	60	0.60	0.80
4.3	Heavy Industries	40	40	0.60	0.60
<b>5.</b>	<b>Service Industries</b>				
5.1	Petrol Pump / Service Garage, Repair, Shop etc.	10	10	0.15	0.15
<b>6.</b>	<b>Public &amp; Semi-public Convenience</b>				
6.1	Educational				
(a)	Nursery School	40	40	0.80	0.80
(b)	Primary School	35	35	0.60	1.00
(c)	High School/Inter College	35	35	1.00	1.20
(d)	Degree College	35	35	1.00	1.50
(e)	Technical / Management Institute	35	35	1.00	2.00
6.2	Medical				
(a)	Clinic / Dispensary	35	40	1.50	1.60
(b)	Nursing Home (up to 50 beds)	35	35	1.60	1.60
(c)	Hospital (50 to 100	35	30	1.50	2.00

S. No.	Land Use & Level	Maximum Ground Coverage		Maximum FAR	
		Present	Proposed	Present	Proposed
	beds)				
(d)	Hospital (above 100 beds)	35	30	1.50	2.50
6.3	<i>Other uses</i>				
(a)	Community Centre, Barat Ghar, Religious Premises	35	40	1.60	1.60
(b)	Other institutions	35	30	1.50	2.00
6.4	<i>Utilities &amp; Services</i>	10	10	0.10	0.10
7.	Open ground (Except Park & Play Ground)	2.5	2.5	0.025	0.025

The following limit will permit for purchasable FAR for land use of group housing, commercial, offices, public & semi-public / community facilities.

Area	Purchasable FAR <sup>2</sup>
Built-up area	20% of basic FAR
Developed area	33% of basic FAR
New / undeveloped area	50% of basic FAR (But maximum 4.0 FAR with basic FAR)

The permitted limit of proposed purchasable FAR multiplied as under<sup>3</sup>:

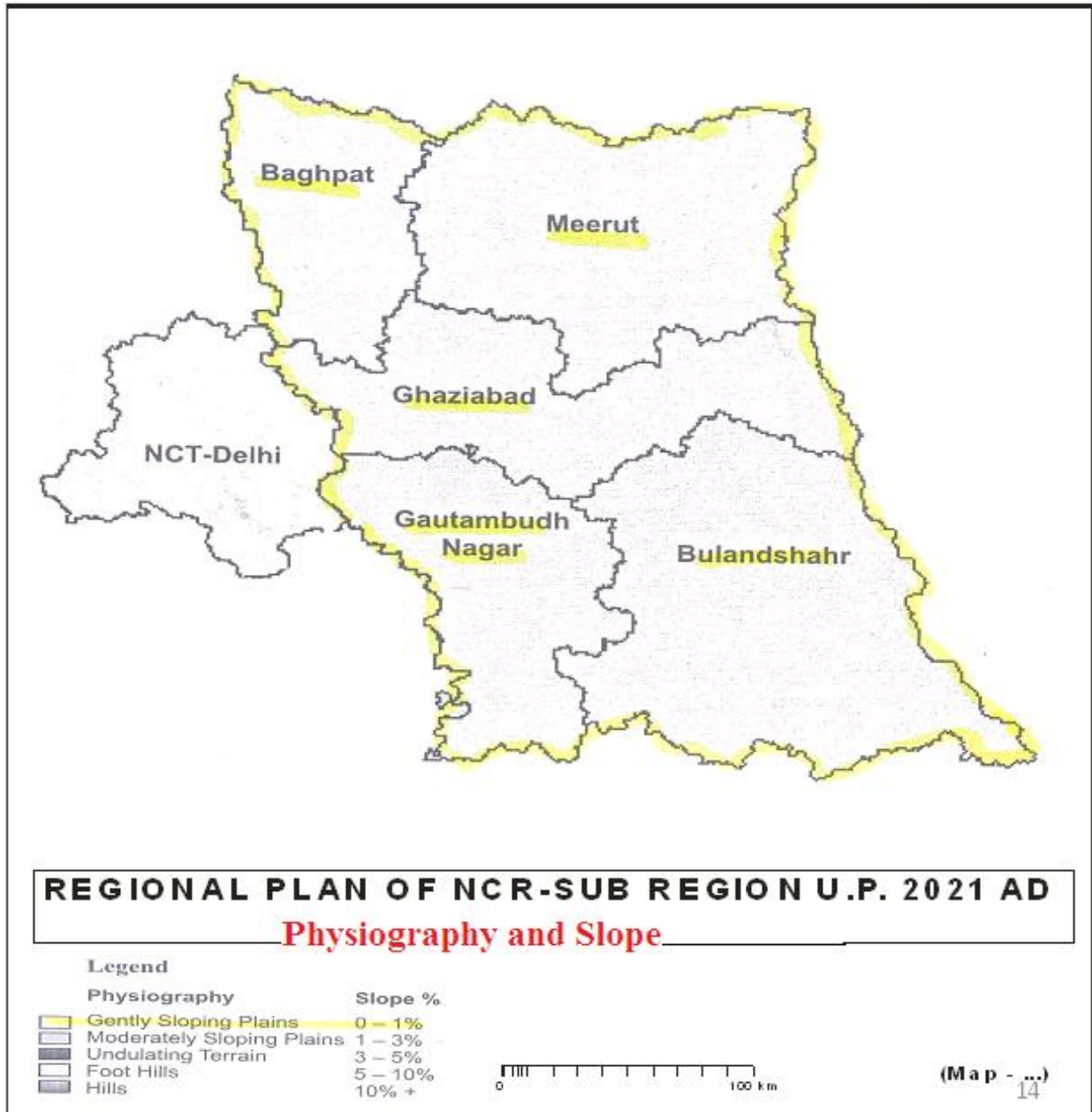
S. No.	Land Use	Multiplied by
1.	Commercial	0.50
2.	Offices	0.45
3.	Group Housing	0.40
4.	Public & Semi-public / Community facilities	0.20

<sup>2</sup> The point is not clear

<sup>3</sup> The point is not clear

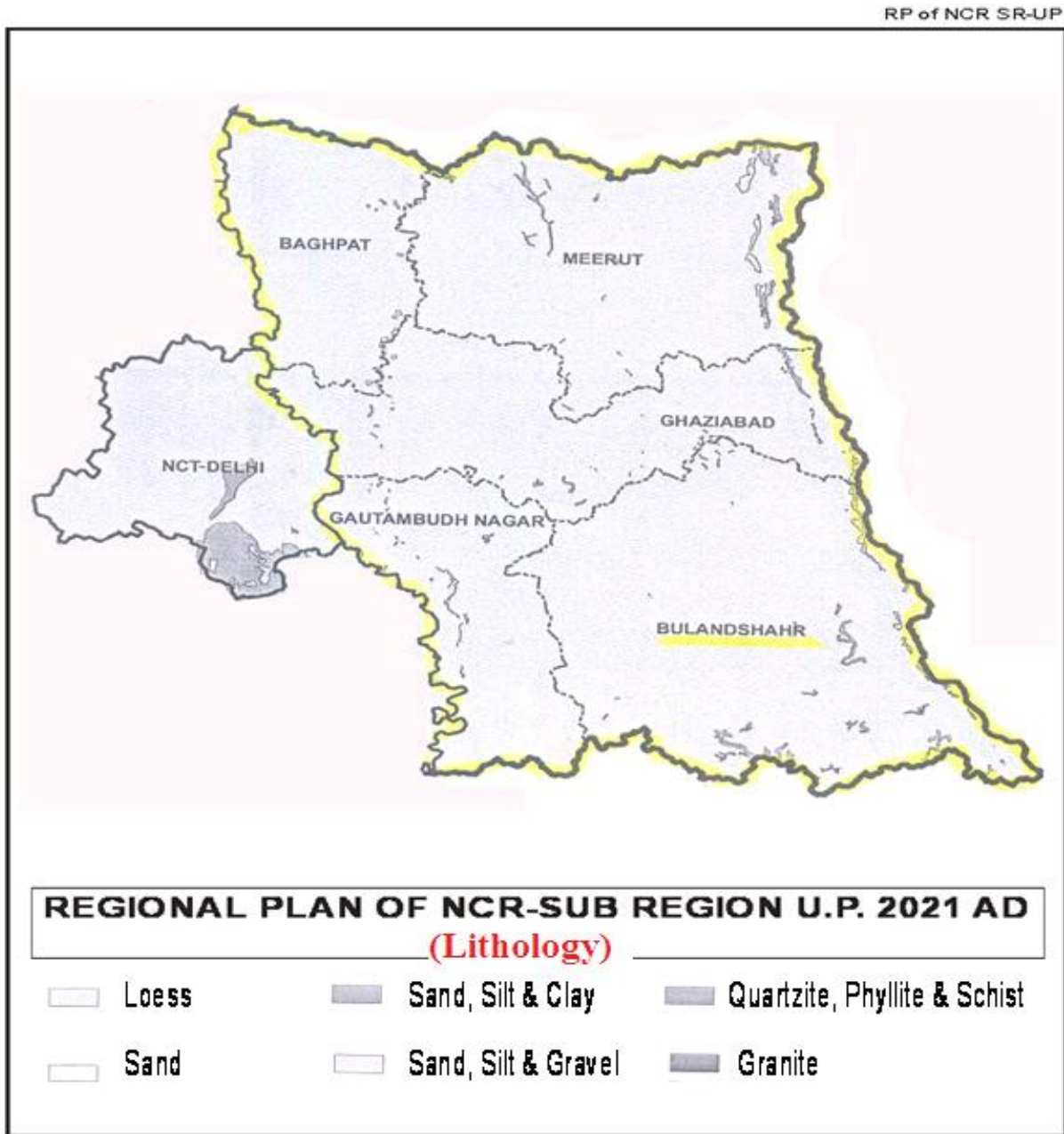
**Regional Plan of NCR-Sub Region U.P. 2021 AD**  
**(Physiography & slope)**

R.P. of NCR SR-UP



(Appendix no.4)

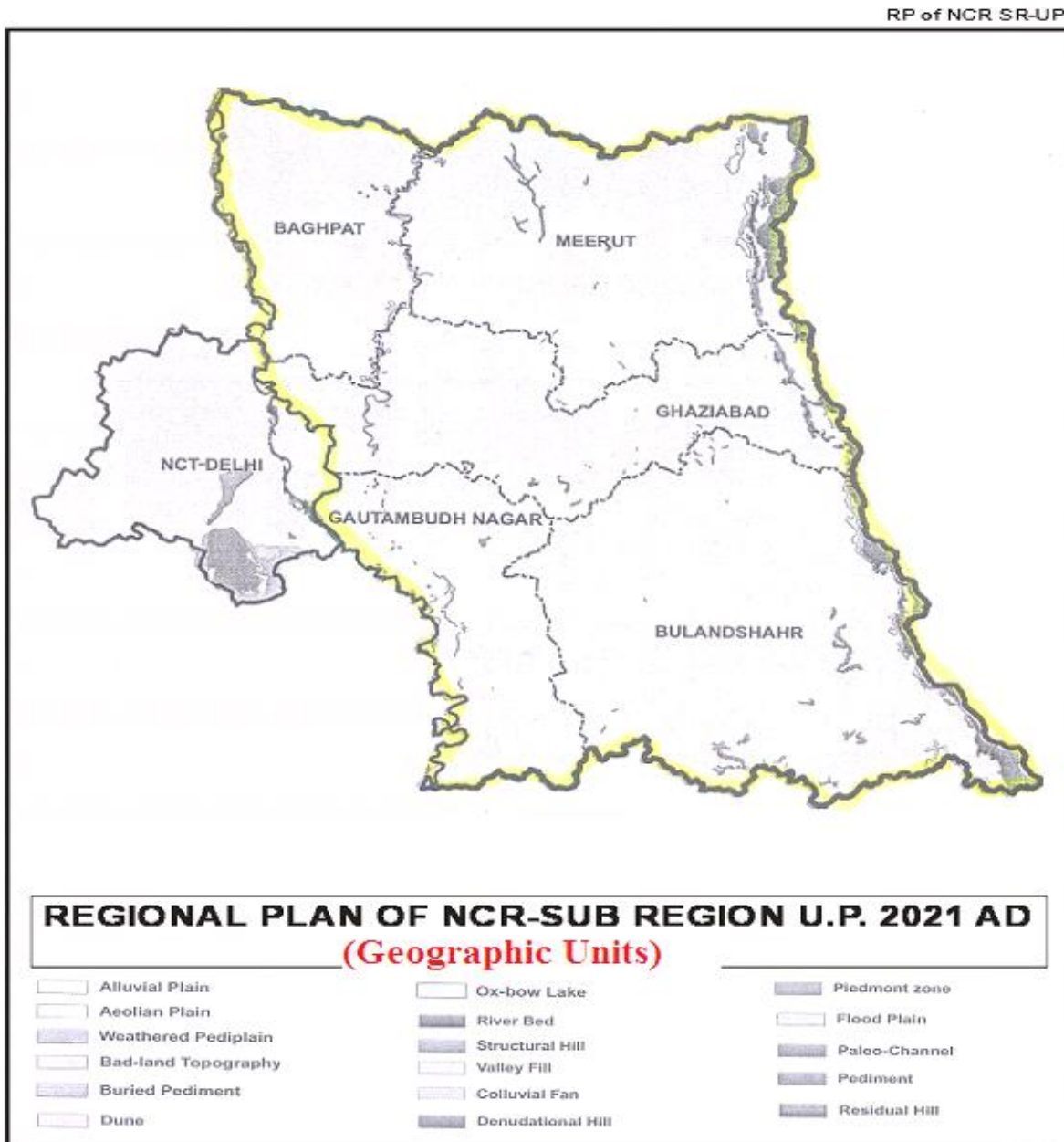
## Regional Plan of NCR-Sub Region U.P. 2021 AD (Lithology)



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(Appendix no. 5)

## Regional Plan of NCR-Sub Region U.P. 2021 AD (Geomorphologic Units)



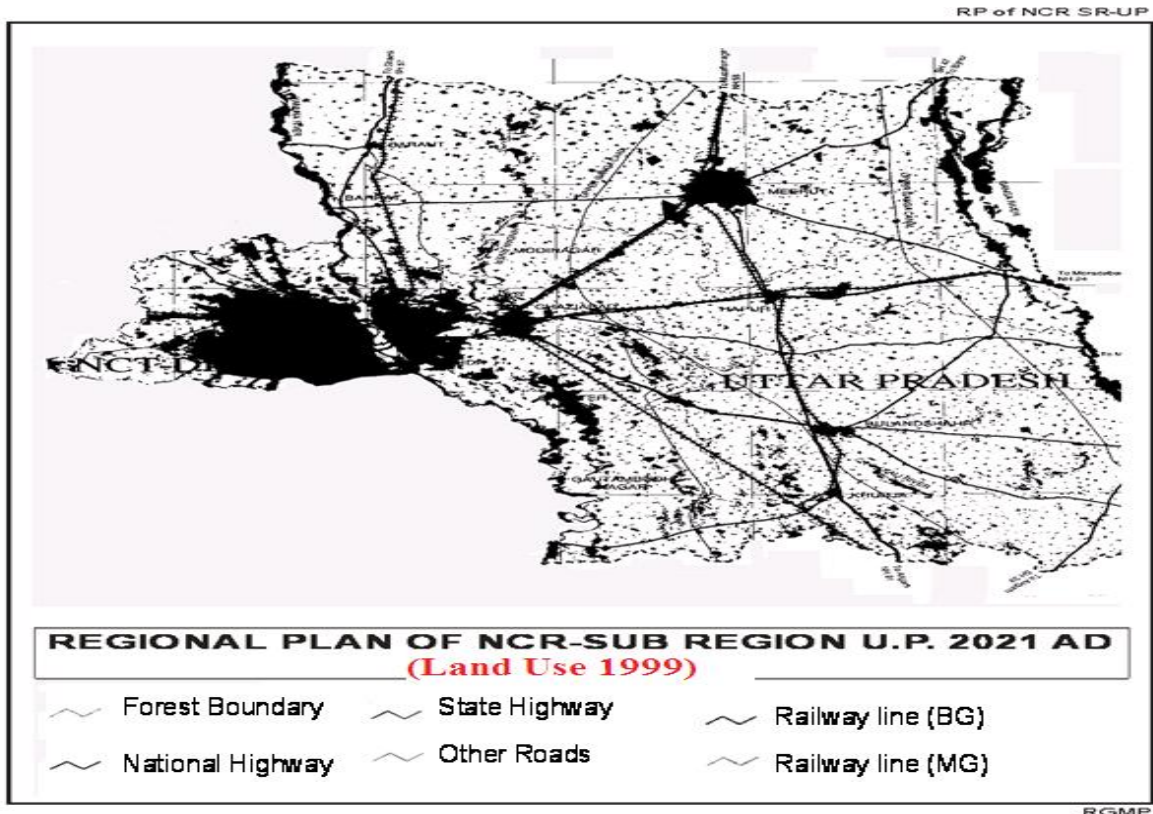
(Appendix no. 6)

## Regional Plan of NCR-Sub Region U.P. 2021 AD (Ground Water Prospects)



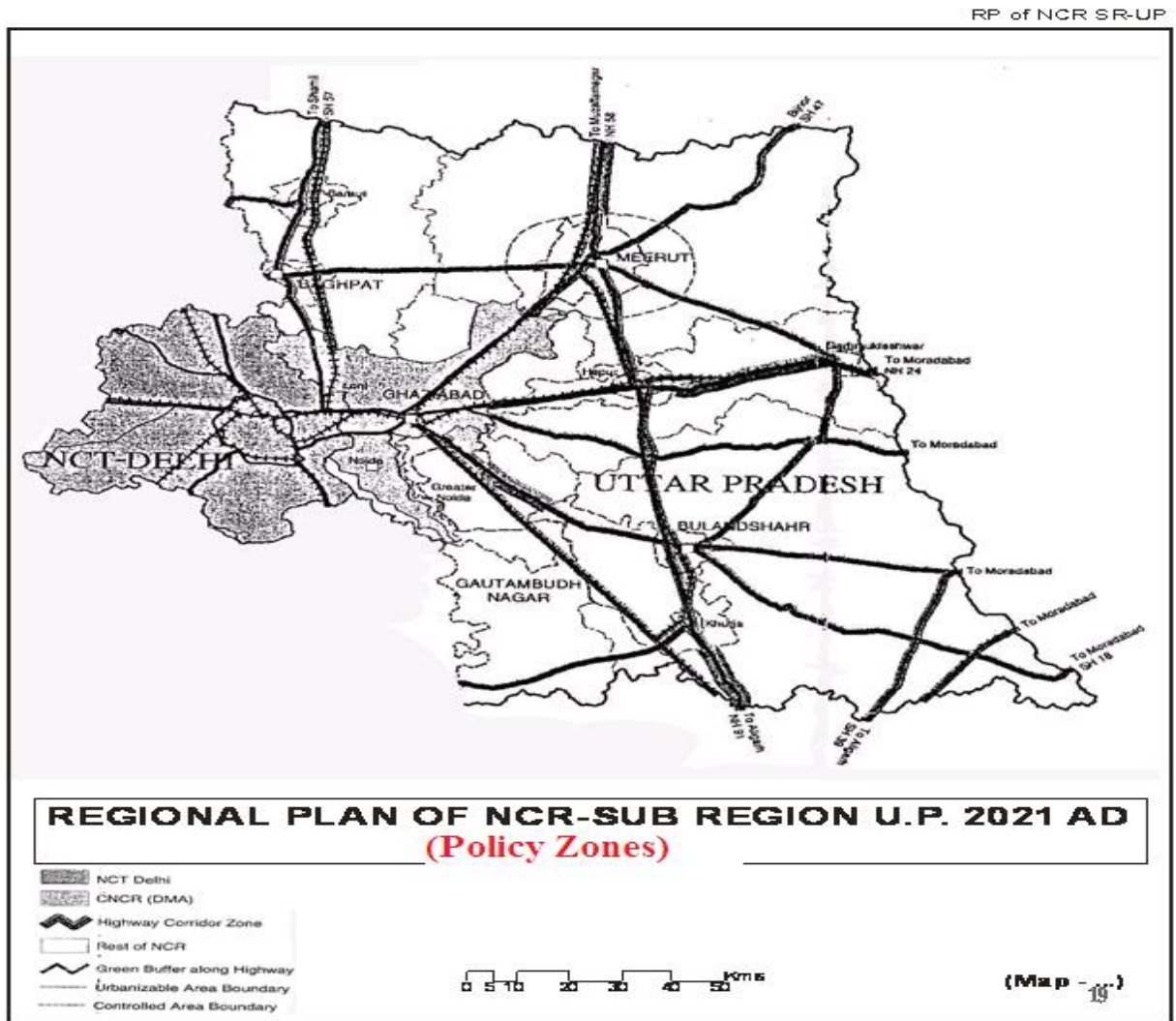
(Appendix no. 7)

# Regional Plan of NCR-Sub Region U.P. 2021 AD (Land Use 1999)



(Appendix no. 8)

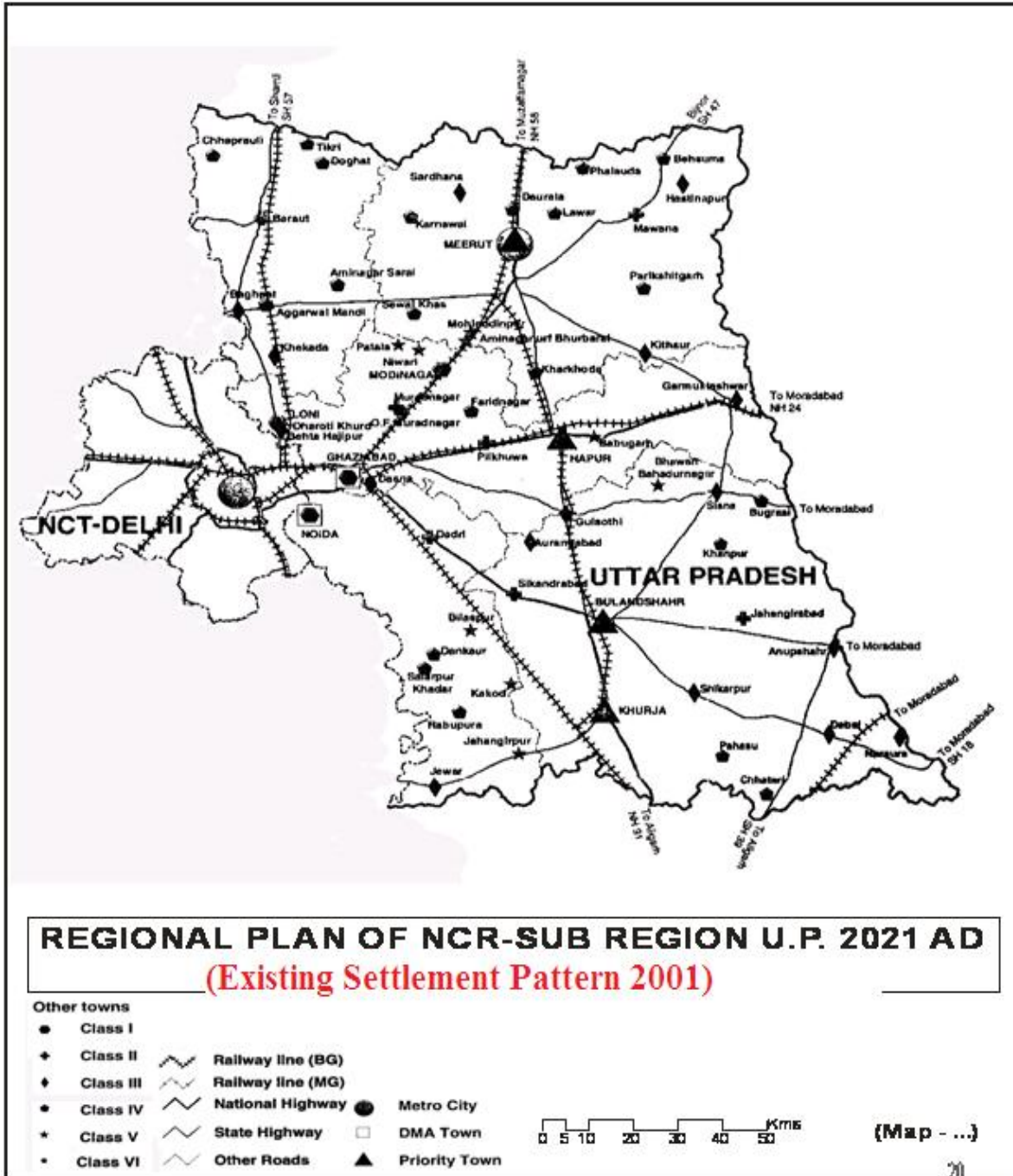
## Regional Plan of NCR-Sub Region U.P. 2021 AD (Policy Zones)



(Appendix no. 9)

# Regional Plan of NCR-Sub Region U.P. 2021 AD (Existing Settlement Pattern 2001)

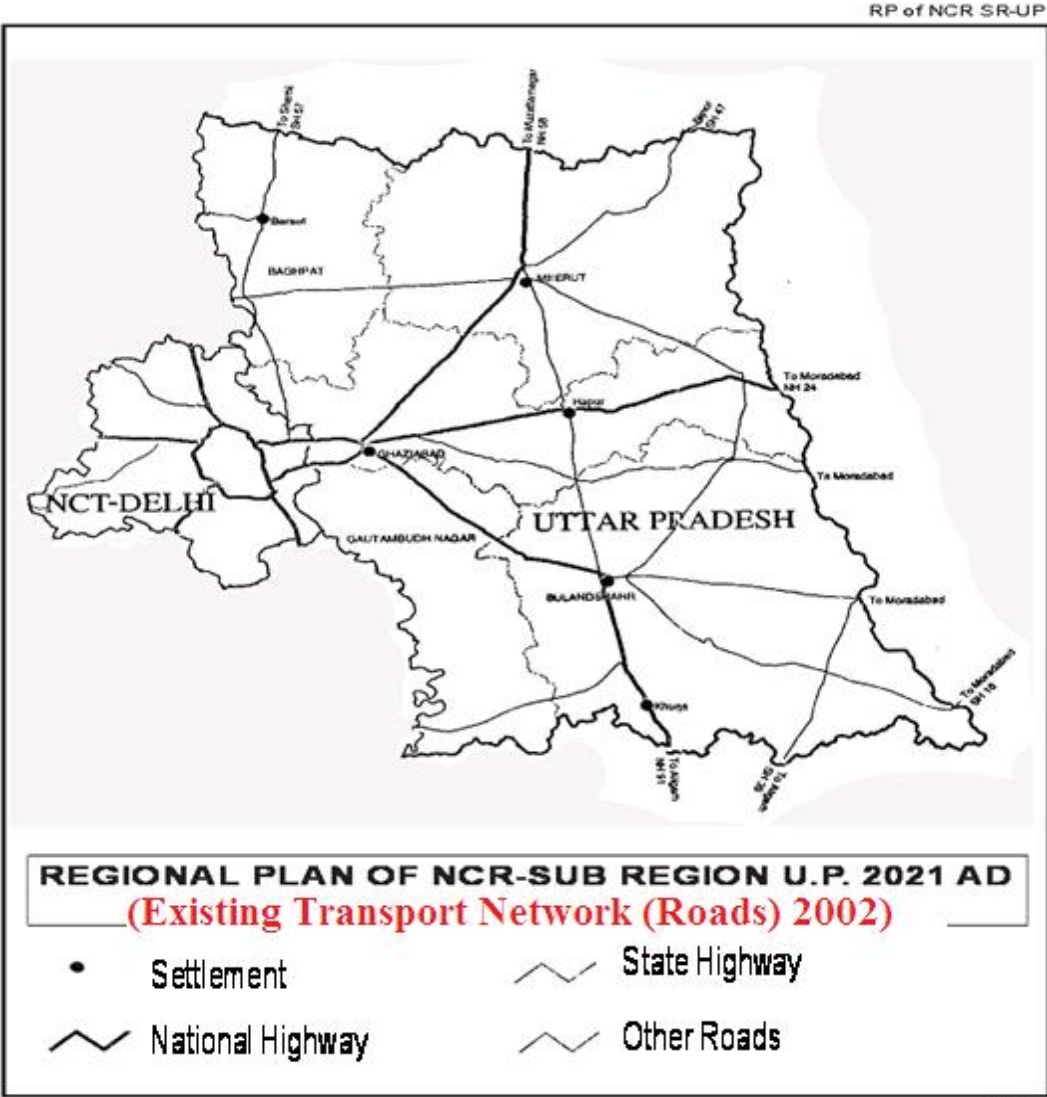
RP of NCR SR-UP



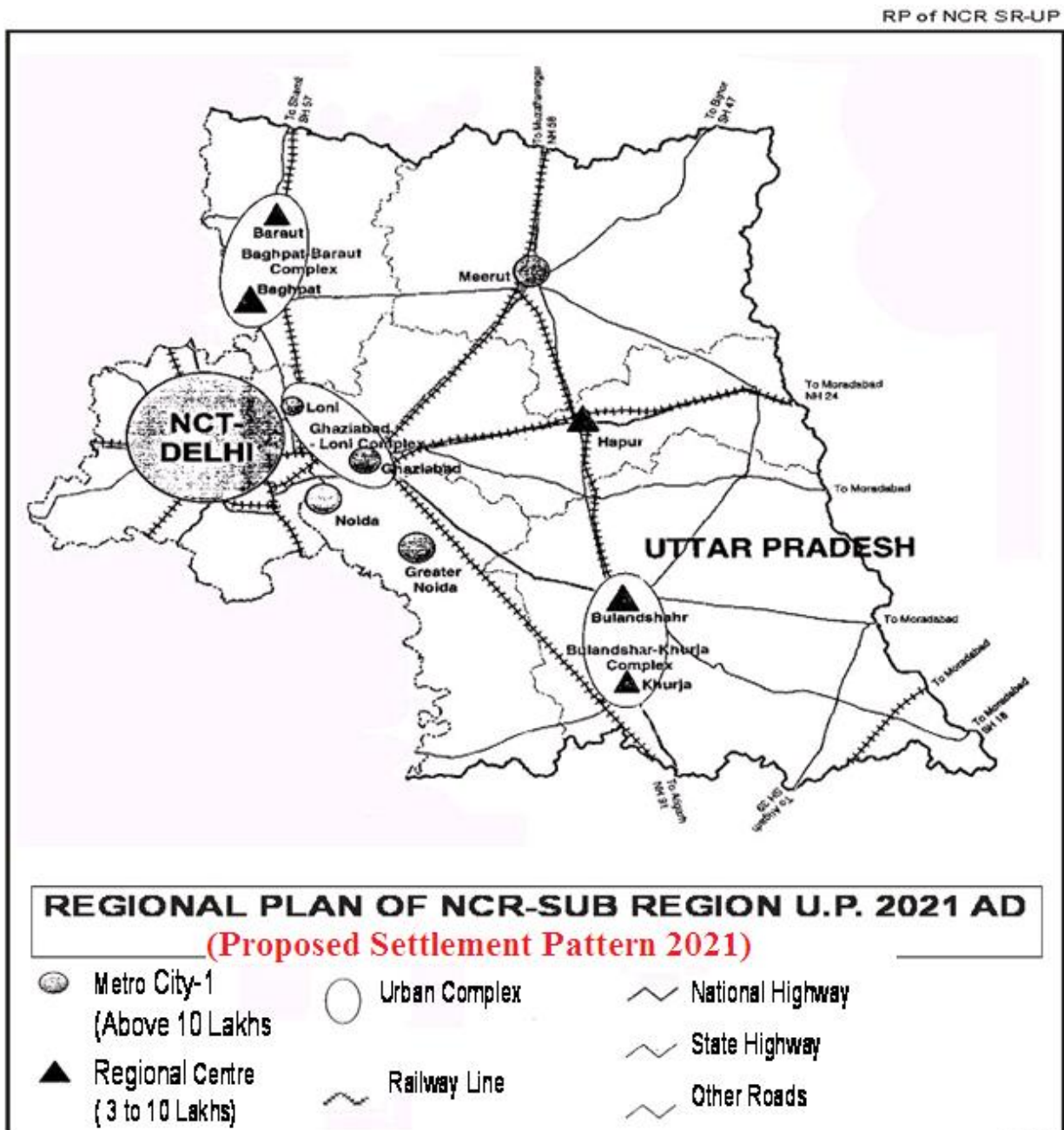
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*(Appendix no. 10)*

# Regional Plan of NCR-Sub Region U.P. 2021 AD (Existing Transport Network (Roads) 2002)

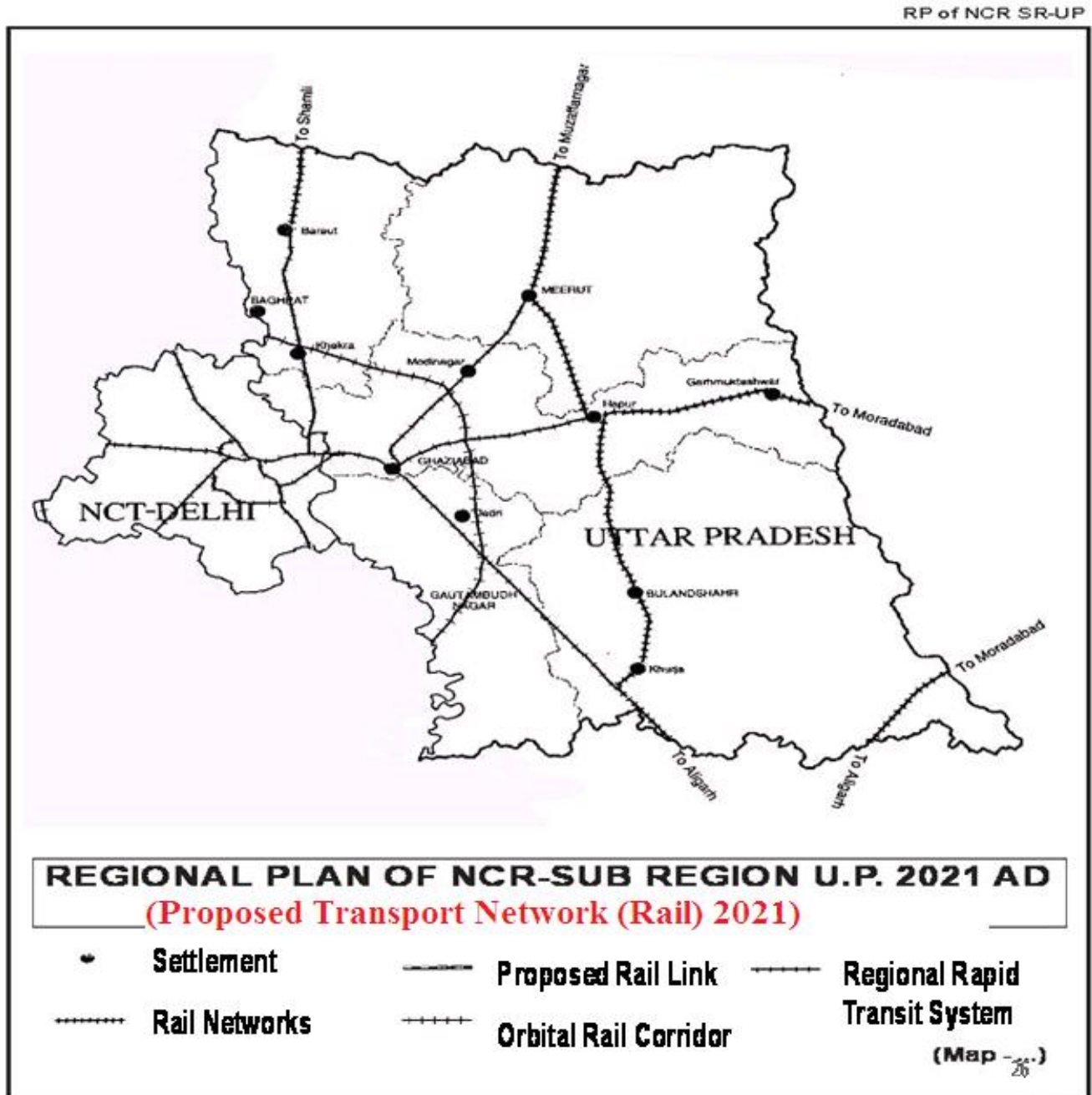


# Regional Plan of NCR-Sub Region U.P. 2021 AD (Proposed Settlement Pattern 2021)



(Appendix no. 12)

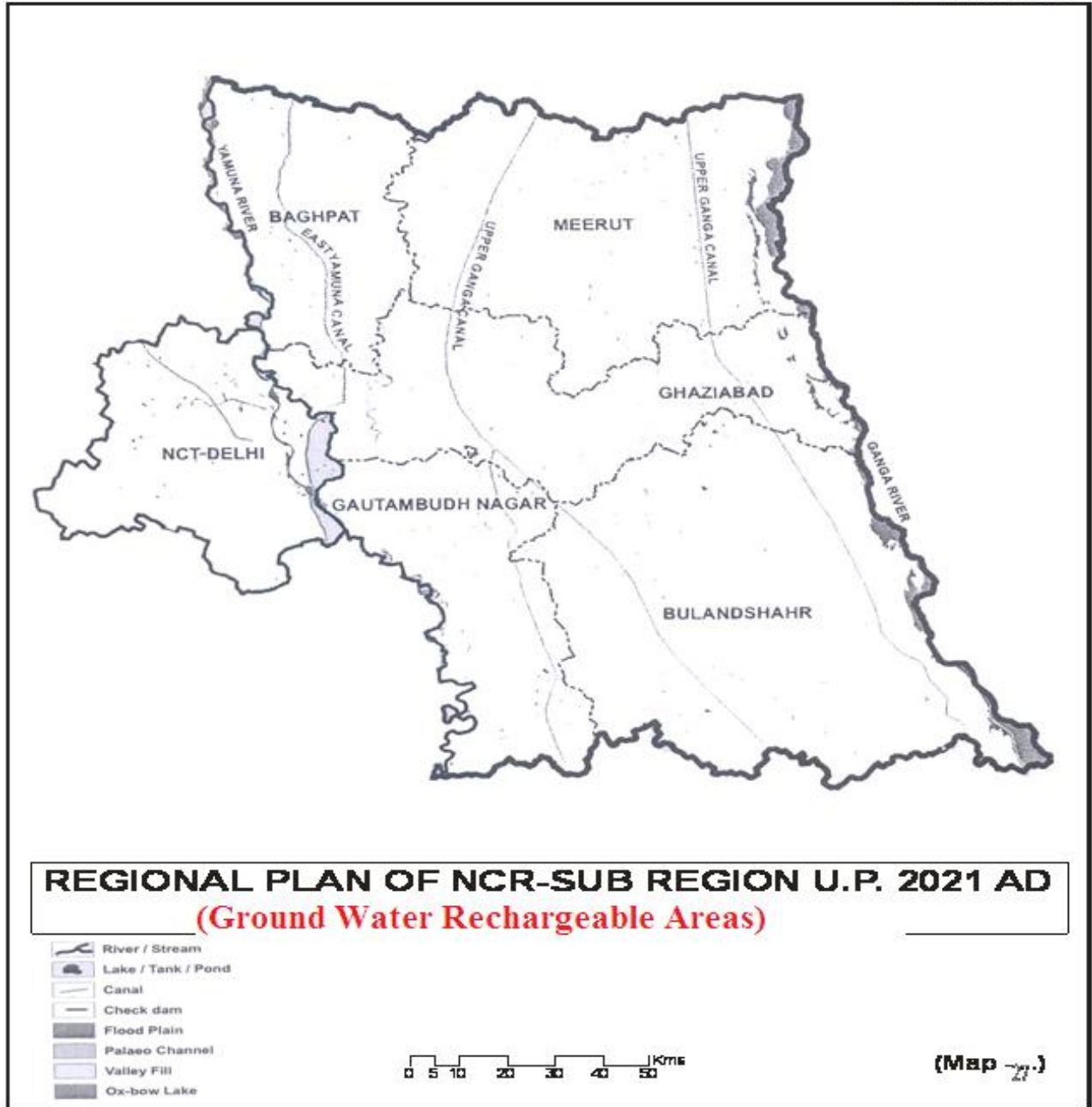
## Regional Plan of NCR-Sub Region U.P. 2021 AD (Proposed Transport Network (Rail) 2021)



(Appendix no. 13)

## Regional Plan of NCR-Sub Region U.P. 2021 AD (Ground Water Rechargeable Areas)

RP of NCR SR-UP

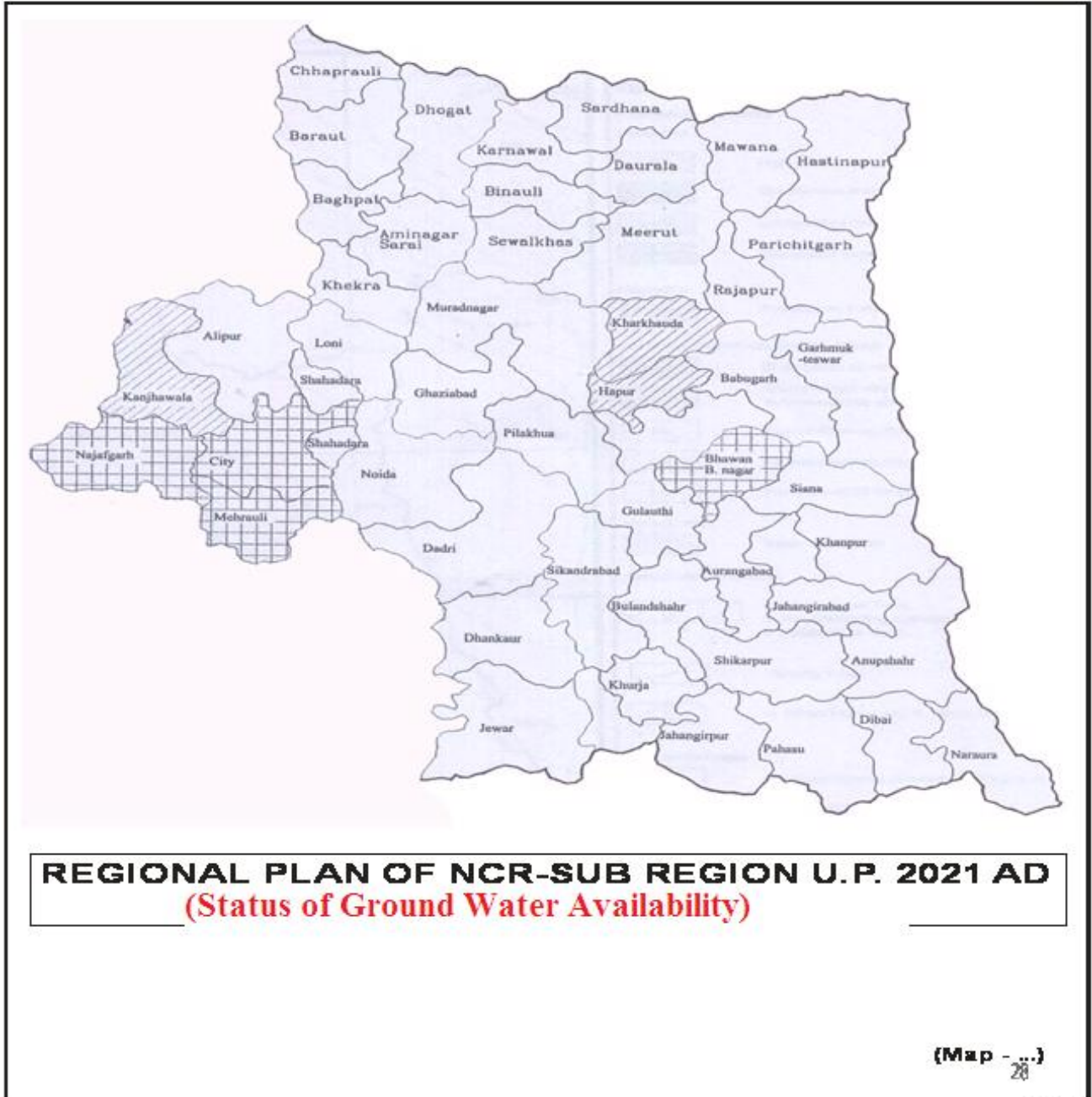


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(Appendix no. 14)

## Regional Plan of NCR-Sub Region U.P. 2021 AD (Status of Ground Water Availability)

RP of NCR SR-UP



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(Appendix no. 15)

**Regional Plan of NCR-Sub Region U.P. 2021 AD (Seismo –  
Tectonic Features)**

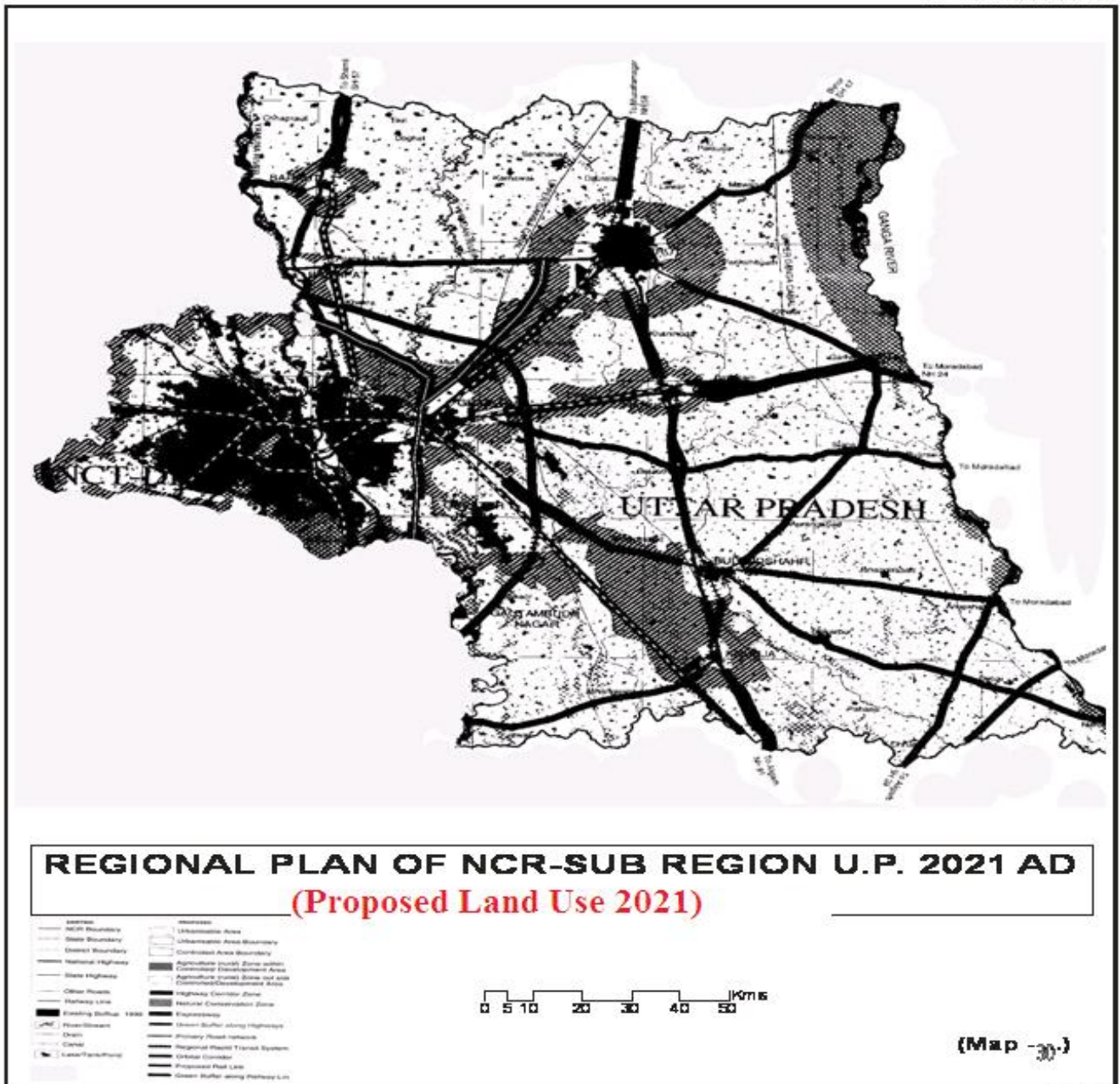
RP of NCR SR-UP



(Appendix no. 16)

# Regional Plan of NCR-Sub Region U.P. 2021 AD (Proposed Land Use 2021)

RP of NCR SR-UP

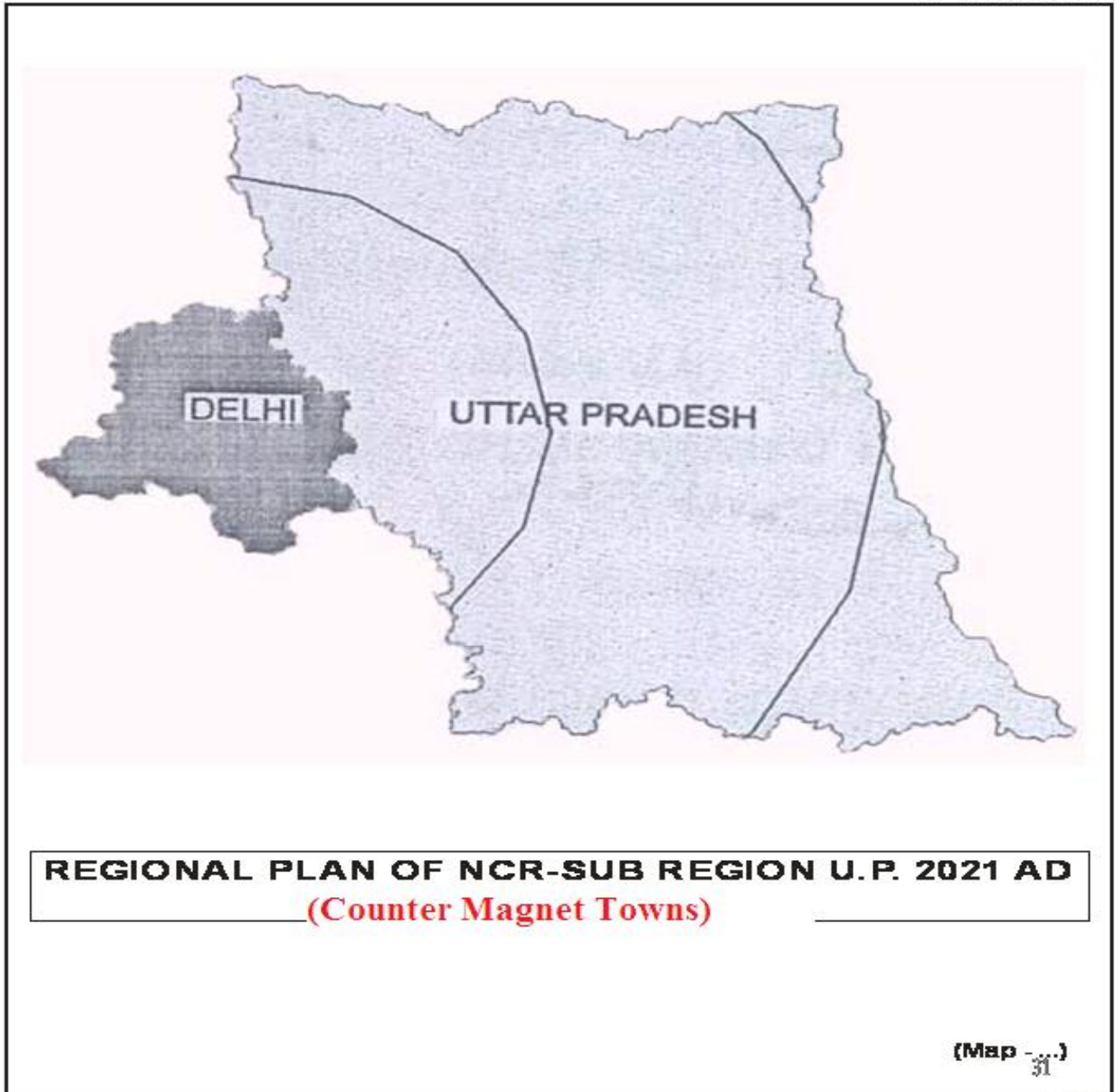


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*(Appendix no. 17)*

**Regional Plan of NCR-Sub Region U.P. 2021 AD (Counter Magnet Towers)**

RP of NCR SR-UP



**Various Provisions as given in Meerut Master Plan – 2021  
AD in 10 tables given under:**

**Table No. 1**

**Meerut Metro City; its population and growth (1901 – 2001)**

S. No.	Year	Population	Difference in decade	Growth in %
1.	1901	1,21,180	-	-
2.	1911	1,19,435	- 1,745	- 1.44
3.	1921	1,25,506	+ 6,071	+ 5.08
4.	1931	1,41,025	+ 15,519	+ 12.37
5.	1941	1,79,155	+ 38,130	+ 27.04
6.	1951	2,39,440	+ 60,285	+ 33.65
7.	1961	2,94,853	+ 55,413	+ 23.14
8.	1971	3,71,760	+ 76,907	+ 26.08
9.	1981	5,36,615	+ 1,64,855	+ 44.34
10.	1991	8,49,799	+ 3,13,184	+ 58.36
11.	2001	11,70,985	+ 3,21,186	+ 37.79

*(Source: Meerut Master Plan 2021 from page no. 8)*

**Table No. 2**

**Description of Industrial Unit of Meerut City**

Sl. No.	Classification of Industry unit	No. of Units	Total Labour	%	No. of labour and total % of labour					
					Skilled Labour %	Semi-Skilled labour %	Non Skilled labour			
1.	Large & Medium	39	4,683	6.31	235	0.32	796	1.07	3,652	4.92
2.	Small Scale Industry	15,510	61,254	82.52	1838	2.48	15,313	20.63	44,103	59.41
3.	Household Industry	7,922	8,295	11.17	141	0.19	995	1.34	7,159	9.64
	<b>Total</b>	<b>23,471</b>	<b>74,232</b>	<b>100.00</b>	<b>2214</b>	<b>2.99</b>	<b>17,104</b>	<b>23.04</b>	<b>54,914</b>	<b>73.97</b>

*(Source: Meerut Master Plan 2021 from page no. 14)*

**Table No. 3**  
**Distribution of Offices in Meerut City**

S. No.	Distribution of Department	No. of Offices	No. of working officers and employees
1.	Central Govt.	41	10,161
2.	Quasi Govt.	123	3,886
3.	State Govt.	180	20,929
4.	Semi-State Govt. /Nigam	93	9,408

*(Source: Meerut Master Plan 2021 from page no. 17)*

**Table No. 4**  
**DETAILS OF PRESENT DIFFERENT EDUCATIONAL INSTITUTIONS IN MEERUT CITY – 2002**

Sl. No.	Category of Educational Institution	No. of Educational Institutions		Total No. of Students
		Govt./ Govt.	Semi Govt. Recognized by	
1.	Primary/Nursery	106	539	54,246
2.	Junior High School	10	94	11,548
3.	Intermediate School	1	26	9,578
4.	Higher Intermediate School	2	45	80,893
5.	Graduate College	-	1	475
6.	Post Graduate College	-	11	29,221
7.	University	2	-	-
8.	Professional College	8	-	370
9.	Professional College ITI	4	-	1,362

*(Source: Meerut Master Plan 2021 from page no. 26)*

**Table No. 5****DETAILS OF AVAILABLE DIFFERENT HEALTH FACILITIES IN MEERUT CITY – 2002**

Sl. No.	Nature of Organization	No. of Organization	No. of Beds	No. of Doctors
1.	Primary Health Centre	8	-	12
2.	Hospital (Male)	1	250	42
3.	Hospital (Female)	1	116	21
4.	Medical College	2	1,090	59
5.	Nursing Home	104	-	-
	Cantonment Area			
6.	Hospital	1	70	1
7.	Primary Health Centre	1		

(Source: Meerut Master Plan 2021 *from page no. 27*)

**Table No. 6****No. of working employees in urbanized area of Meerut**

Sl. No.	Business level	1991		2001		2011		2021	
		Total labour	%	Total labour	%	Total labour	%	Total labour	%
1.	Primary Level	23,912	10.25	26,230	8.00	27,030	6.00	28,520	4.00
2.	Secondary level	71,399	30.61	1,01,641	31.00	1,44,163	32.00	2,35,290	33.00
	2.1 Household industry	12,178	5.22	17,213	5.25	24,778	5.50	39,215	5.50
	2.2 Non household industry	15,197	21.91	72,133	22.00	1,01,365	22.50	1,63,990	23.00
		8,112	3.48	12,295					4.50

	2.3 Construction				3.75	18,020	4.00	32,085	
3.	Tartary level	1,37,929	59.14	2,00,000	61.0	2,79,317	62.0	4,49,190	63.00
	3.1 Trade & Commerce	49,174	21.08	4	0	7	0	0	21.50
	3.2 Transport & Communication system	15,197	6.52	68,854	21.0	96,860	21.5	1,53,295	8.50
	3.3 Other activities	69,748	29.90	24,591	7.50	36,041	8.00	60,605	33.00
	3.4 Marginal workers	3,810	1.64	1,06,559	32.5	1,46,416	32.5	2,35,290	-
				-	-	-	-	-	-
	Total labours	2,33,240	100.0	3,27,875	100.0	4,50,510	100.0	7,13,000	100.0
	Population	8,49,799		11,70,985		15,27,156		23,00,000	
	Ratio of participant worker		27.44		28.00		29.50		31.00

(Source: Meerut Master Plan 2021 from page no. 41)

### Table No. 7

### Demand of Educational & Health Centre up to 2021 AD

Sl.No.	Name of the Institution	No.
1.	Pre-primary School	920
2.	Primary School	460
3.	Sr. Secondary School	46
4.	College	23
5.	Higher Education Technical & Management Institution	8
6.	Medical College	2
7.	General Hospital	11
8.	Important Hospital	28
9.	Polyclinic	28
10	Dispensary	153

(Source: Meerut Master Plan 2021 from page no. 44)

**Table No. 8****Demand for Residential Unit of Income Group wise**

S. No.	Level	Year - 2005	Year 2015	Year-2025
1.	E.W.S	20151	30689	43570
2.	L.I.G	25560	38925	55264
3.	M.I.G	29871	45491	64585
4.	H.I.G	12568	19140	27174
	<b>Total</b>	<b>88151</b>	<b>134244</b>	<b>190593</b>

(Source: Meerut Master Plan 2021 from page no. 45)

**Table No. 9****Description of proposed land use in Meerut Master Plan 2021**

S. No.	Land use level	Area (hect.)	%	Remarks
1.	Regularized housing area	1540.14	9.88	With Market & Congested Market area
2.	Housing	6201.00	39.7	With Mixed Land use
3.	Business	352.80	2.26	-
4.	Industries	1228.85	7.88	-
5.	Offices	351.17	2.25	-
6.	Community Centre	1486.65	9.54	-
7.	Transport	1549.65	9.94	-
8.	Park, Play ground, Green verge and forest area	2897.71	18.59	-
		15589.97		-
	Or	15590.00	100	-

(Source: Meerut Master Plan 2021 from page no. 48)

**Table 5.8:**

**Workers Participation ratio in selected Towns of UP Sub  
Region (1981-1991)**

**(Page – 43)**

<b>Cities/Towns</b>	<b>1981</b>	<b>1991</b>
Meerut	28.3	26.9

*Source: Census 1981 and 1991, Census of India*