

3.0 DELHI URBAN AREA –2021

At present about 702 sq.km is estimated to have been developed as built up areas accommodating about 138 lakh population. To accommodate the projected population of 230 lakh by the year 2021, a three-pronged strategy is recommended:

- i) To find ways by which the population growth in Delhi can be checked.
- ii) To increase the population holding capacity of the area within existing urban limits through redevelopment, and also deflect part of the population in the NCR outside Delhi; and
- iii) Extension of the present urban limits to the extent necessary.

3.1 POPULATION HOLDING CAPACITY OF DELHI

The area within the existing urbanisable limits of Delhi Urban Area-2001 consists of the sub city planning zones A to H and the Dwarka, Rohini, Narela projects. Population holding capacity of A to H zones is to be enhanced through a redevelopment strategy and modified development norms. This will be related with:

- i) Residential development types and their potential for higher absorption.
- ii) Redensification of housing areas developed at lower densities and along selected sections of the Metro corridor.
- iii) Employment areas/centres
- iv) Augmentation and rationalisation of infrastructure - physical and social.
- v) Increase in transportation network capacity.

The holding capacity of Dwarka, Rohini phase III, IV & V and Narela will be enhanced through:

- i) Early and full utilisation of the planned areas
- ii) Implementation of the schemes under planning stages.

Studies based on redevelopment potential of existing residential areas and the actual population as per census 2001 have revealed that the present urban limits i.e DUA-2001 would be able to accommodate about 153 lakh population ultimately i.e. 114 lakh in A to H and 39 lakh in Dwarka, Rohini phase III, IV & V and Narela (table 3.1).

Table 3.1: Zonewise Estimated Holding Capacity of Existing Urban Area.

(Population in '000)

Zone	Holding capacity MPD 2001	Existing population 2001	Holding capacity 2021
A	420	570	570
B	630	624	630
C	751	679	788
D	755	587	813
E	1789	2798	2800
F	1278	1717	1975
G	1490	1629	1955
H	1865	1226	1865
Sub total	8978	9830	11400
Dwarka		597	1700
Rohini III		96	160
Rohini IV& V		198	820
Narela		179	1220
Sub total	3222	1070	3900
GRAND TOTAL	122 Lakh	109 lakh	153 Lakh

The remaining population of the year 2021 will have to be accommodated in the planned new urban extensions.

3.2 URBAN EXTENSION

Out of the remaining 77 lakh (230-153 lakh) population, 29 lakh already exists in villages, census towns, unauthorised colonies and JJ

clusters in the present rural areas. Therefore about 48 lakh (77-29 lakh) additional population is to be accommodated in the future urban extensions.

Due to land constraint in NCTD the areas earmarked as rural/agricultural in the previous Master Plans have always been under pressure for utilisation for various urban activities and have virtually lost their original character. In future, urbanisation has to be in the areas that have development pressure/potential like the areas along the major transport corridors and fringes of already urbanised areas. Therefore, it is envisaged that the area under existing designated rural would be absorbed as urban extension from time to time with due regard to balanced city development. At the first instance to accommodate the projected additional population @ 250 pph average city level density, the requirement for urban extension would be 20,000-22000 ha of land within development time frame of 15 -16 years. The immediate urban extension could be in the zones of J to L, N & P. The land required for further urbanisation, will have to be assembled through a mix of acquisition and land assembly techniques of land pooling etc., involving the public and private sectors/land owners.

The Plan stipulates that the land upto the depth of one peripheral revenue village boundary along the border of NCTD, wherever available, would be maintained as Green Belt and considering the constant pressure on the undeveloped land, new farmhouses and motels shall not be permitted in NCTD. The existing sanctioned ones may be continued till the area is declared for urbanisation.

Land in the Urban Extension would broadly be distributed in the different land uses in the following manner as shown in table 3.2.

Table 3.2: Land use Distribution

LAND USE	% OF LAND
Residential	45-55
Commercial	3-4
Industrial	4-5
Green/ Recreational*	15-20
Public & Semi-Public Facilities	8-10
Circulation	10-12

* This does not include green areas under various specific gross land use categories

On an average the space required per person would be 40 sq.m., covering about 920 sq.km of urban area for a projected population of 230 lakh in year 2021.

3.2.1 HIERARCHY OF URBAN DEVELOPMENT

A planned city for an environment of convenience should have a hierarchical cellular structure; with nuclei to contain essential facilities and services at different levels. The pattern of a community module is conceived as residential area containing a 'neighbourhood' with senior school and shopping facilities for day-to-day needs as focal points. The higher level of additional facilities is to be provided at Community, District and Zonal/sub-city levels. Such a structure could be maintained in the process of the preparation of plans on the basis of the standards set in the following table:

Table 3.3 Hierarchy of Urban Development

LEVEL	FACILITIES	AREA IN SQM		
		No.	PER UNIT	TOTAL
1. Housing Area Population –5,000	1. Primary School/Middle School	1	2,000	2,000
	2. Milk Booth	1	As per standard design of the concerned Department	
	3. Convenience shopping	1	1,000	1,000
	4. Totlot	20	125	2,500
	5. Housing area Park	1	5,000	5,000
	6. Housing area Play ground	1	5,000	5,000
2. Neighborhood Population -10,000	1. Sr. Secondary School	1	6,000	6,000
	2. Religious building	2	400	800
	3. Electric Sub Station 11 KV		As per requirement	
	4. Multipurpose Community hall (provision for marriages, small public gathering, function, eating joint and library etc.)	1	2,000	2,000
	5. Local shopping	1	3,000	3,000
	6. Service Market	1	2,000	2,000
	7. Informal Bazaar	1	1,000	1,000
	8. Three wheeler & Taxi Stand	1	400	400
	9. Neighborhood Park	1	10,000	10,000
	10. Neighborhood Play Area	1	10,000	10,000
	11. Underground water tank	1	2,000	2,000
	12. Dhalao including segregation	1	200	200
	13. Local level waste water treatment facility	Wherever feasible		

3. Community Population-1,00,000	1. Hospital 'C' (101 beds & 200 beds)	1	5,000 - 10000	5000 -10000
	2. Hospital 'D' (upto 100 beds)	1	2,500-5,000	2,500- 5,000
	3. Family Welfare Centre a) Pediatric Centre b) Geriatric centre c) Diagnostic centre	2	500-800	1000-1600
	4. Maternity Home (upto 50beds)	2	1,000-2,000	2,000-4,000
	5. Nursing Home/ Polyclinic (upto 50 beds)	2	1,000 – 2,000	2,000-4,000
	6. Dispensary for pet animals & birds	1	300	300
	7. School for Mentally/ Physically challenged	1	2,000	2,000
	8. Police Post	1	1,000	1,000
	9. Community Recreational club	1	2,000	2,000
	10. Socio-Cultural activities (auditorium, music, dance & drama centre/ meditation & spiritual centre)	1	1,000	1,000
	11. Banquet Halls	1	800	800
	12. LPG Godowns	3 LPG Godowns per 1 lakh population		
	13. SKO/ LDO outlet	As per standard design of the concerned department		
	14. Electric sub station 66 KV	2	10,800	21,600
	15. Community Centre	1	40,000	40,000
	16. Community Park a. Park b. Multipurpose Park/ground	1 1	50,000 20,000	70,000
	17. Community Sports Centre	1	30,000	30,000
	18. Bus Terminal	1	1,000	1,000
	19. Waste water treatment facility	As per requirement		
4. District Population-5,00,000	1. Hospital 'A' (501 beds & above)	1	25,000 - 45000	25,000-45000
	2. Hospital 'B' (201 beds to 500 beds)	2	15,000-25000	30,000-50000
	3. Veterinary Hospital for pet animals & birds	1	2,000	2,000
	4. Vocational Training Centre: ITI/ Polytechnic/ Vocational Training Institute/ Management Institute/ Teacher Training Institute etc.	1	4,000	4,000
	5. General College	1	As per the norms of the concerned professional governing bodies	

	6. Professional College (Engineering)	1	As per the AICTE norms	
	7. Police Station	2	5,000	10,000
	8. Fire Station (5 to 7 km radius)	3	10,000	30,000
	9. Old Age Home	1	1,000	1,000
	10. Care Centre for Physically/ Mentally challenged	1	1,000	1,000
	11. Working women-men hostel	1	1,000	1,000
	12. Night Shelter	1	1,000	1,000
	13. Adult Education Centre	1	1,000	1,000
	14. Orphanage/ Children's Centre (one each)	1	1,000	1,000
	15. Electric sub station 220 KV	1	40,000	40,000
	16. District Centre	1	4,00,000	4,00,000
	17. Service Market	1	60,000	60,000
	18. Bus Terminal	1	2,000	2,000
	19. Bus Depot	1	4,000	4,000
	20. District park			2,90,000
	a Park	1	2,50,000	
	b Multipurpose ground/ Park	1	40,000	
	21. District Sports Centre	1	1,00,000	1,00,000
	22. Recreational club	1	5,000	5,000
	23. Cremation ground	1	10,000	10,000
5. Zonal/ Sub City Population 10,00,000	1. Medical College	1	As per Medical Council of India/ Ministry of Health norms	
	2. Nursing and Paramedic Institute	1	2,000	2,000
	3. Telephone Exchange	1	2,500	2,500
	4. RSU (Remote Subscribe Unit)	1 for 3 km radius	300	300
	5. Sub City Wholesale Market	1	1,50,000	1,50,000
	6. Bus Depot		As per required	
	7. Head Post Office & Admn. Office	1	2,500	2,500
	8. Sewage Pumping Station	1	2,500	2,500
	9. Municipal Office for water & sewerage	1	1,000	1,000
	10. Sewerage Treatment Plant (180 mld)	1	2,34,000	2,34,000
	11. City Park			10,80,000
	a. Park	1	10,00,000	
	b. Multipurpose ground	1	80,000	
	12. Divisional Sports Centre	1	3,00,000	3,00,000
	13. Burial ground/ Cemetery	1	10,000	10,000

In addition to above, following facilities are also to be provided at city level:

FACILITIES	NO.		AREA (IN SQ.M.)
1. University Campus a) Academic incl. Administration b) Residential c) Sports & Cultural Activities d) Parks & Landscape	4 sites in urban extension		Upto 2,00,000
2. District office and battalion	1 for each administrative zone		10,000
3. Police Lines			20,000
4. District Jail	1	25 lakh	50,000
5. Police Training Institute/ College	City level (to be located in fringe area)		50,000
6. Police Firing Range			Upto 1,00,000
7. Police Camp			Upto 1,00,000
8. Traffic and police control room (Temporary structures only)	As per requirement		
9. a. Post Office Counter (without delivery) b. Courier Service Office	a. No specific site reservation to be kept in the layout plan. b. Permitted in all use/ zones/ under mixed use as per requirement except in recreational use zone.		
10. Telegraph Office (Booking & Delivery)			
11. Fire Training Institute/ College	City level (One site in urban extension)		30,000
12. Disaster Management Centre	1 each for administrative zone		10,000 along with suitable open area (20,000) for soft parking, temporary, parade ground etc
13. Exhibition-cum-Fair Ground	2 sites in new urban extension		Upto 4,00,000 each
14. Religious Centre	1	25 lakh	40,000
15. Integrated Office Complex	1 each for administrative zone		15,000
16. Amusement Park	Suitable area of about 20 ha, one each along National Highway in the proposed green belt		
17. International Sports Event	About 200 Ha to be reserved wherever possible in Urban Extension		

3.3. REDEVELOPMENT OF EXISTING URBAN AREA

The scope for development of urban extensions on a large scale is restricted due to limitations of buildable/ urbanisable land in Delhi. Therefore, the option of redevelopment and upgradation of developed urban land, through a process of reorganisation and utilisation of the land already developed, will have to be a major element of the overall city development plan.

For efficient and optimum utilization of the existing urban land, both in planned and unplanned areas, a redevelopment strategy for accommodating more population in a planned manner is to be taken up on priority in all use zones. This would have to be based on provision of infrastructure viz. water supply, sewerage, road network, open spaces and the essential social infrastructure.

To encourage the growth impulse for regeneration in the target redevelopment areas, the possible incentives and modalities recommended include grant of planning permission at the scheme level with permission to reorganize/pool properties for planning purposes, provision of social infrastructure through Transferable Development Rights or Accommodation Reservation and reduced space standards for unplanned areas, enhanced FAR for specified redevelopment areas and application of flexible concept of mix-use zones in Special Area & Villages on scheme basis.

3.3.1. REDEVELOPMENT STRATEGY

The target areas for redevelopment will have to be identified on the basis of their development potential and the need for upgradation and improvement through major changes in a comprehensive manner. Some of the areas identified are:

D) PLANNED AREAS

1. Influence Zone along MRTS and major Transport Corridor

Growth of Delhi over the years has been on the ring and radial pattern with reliance on road based public transport. The development envisaged by the previous plans was polynodal with hierarchy of Commercial Centres located on either ring or radial roads. The proposed MRTS network will bring sizable urban area within walking distance from the proposed stations. This will have an impact on the existing structure of the city and consequently its development. This changed scenario provides opportunities for city restructuring and optimum utilization of the land along the MRTS corridors. In this process, a sizable proportion of the additional population with requisite facilities and employment can be absorbed along these corridors. Influence zone along MRTS corridor is envisaged as intensive development zone. The scheme for Redevelopment of Influence Zone shall be prepared on the basis of the following:

- i. Maximum upto 500 m. wide belt on both sides of centre line of the MRTS route will be designated as Influence Zone. Entire approved layout plan of a scheme will be included in the zone if more than 70% of the layout plan area falls inside the 500 m. belt. In case of large schemes, block / pocket boundary should be considered as one scheme for this purpose.
- ii. The approval of schemes will be granted only after commencement of execution of the respective phase of MRTS.
- iii. Special provisions are to be made for the following areas, in order to retain their basic character:
 - Lutyens' Bungalow Zone, Chanakya Puri, DIZ Area, Mata Sundari Area.
 - Civil Lines Bungalow Area.

- Monument Regulated Zone (As per ASI guidelines)
- iv. Development Controls applicable will be same for the respective use Zones / Use Premises, except for FAR and Height as per the specific schemes.
- v. Subject to preparation and approval of comprehensive integrated scheme the maximum FAR and height will be upto 1.5 times of the permissible FAR on the respective use premises.
- vi. In the proposed Urban Extension areas the land uses will be integrated with the proposed movement corridors at planning stages only.

2. Redensification of low-density areas.

There is a large proportion of underused land with a number of vacant sites or unutilized built areas falling in the central city. The major areas are government land having mostly low density and old housing. The areas are recommended to be comprehensively planned for improvement and redevelopment in order to make best use of land resources as per the prescribed norms.

3. Redevelopment of Other Developed areas

In Delhi, including New Delhi (NDMC area), a large number of housing, commercial and industrial areas are old and characterized by poor structural condition, sub-optimal utilisation of land, congestion, poor urban form, inadequate infrastructure services, lack of community facilities, etc. These are to be redeveloped to be at par with the new developments as per the prescribed norms and development controls by formulating co-operative society/ RWA/ Traders' Associations.

(II) SPECIAL AREA

The Special Area as defined on the Plan measures about 2600 ha. and has been divided into three separate parts namely (i) Walled City (ii) Walled City and Extension and (iii) Karol Bagh. These are characterized by a mix of different land uses and have similarities in compact built form, narrow circulation space and low-rise high-density developments, mainly accommodating residential, commercial both retail or wholesale and industrial uses. Therefore, it is important that the areas, which are already established with identified uses, continue to play an active economic role.

The strategy is to provide suitable framework allowing mix-use activities appropriate to the character of the areas as per the individual schemes having greater flexibility in terms of permitting variety of uses namely, commercial use (shops, offices, banks etc.), listed household industry or outlets for specialized services etc. However, the criterion of selection of the mix-use activities is to be assessed on environmental and predominant use of the area e.g. residential, retail outlet streets, etc. These activities should not attract heavy traffic and bulk goods movement.

Required parking and open spaces will have to be complied but reduced space norms for other facilities may be accepted. The redeveloped areas should ensure modern services and amenities and thereby eliminating risk generating structures and activities.

The regulations for Special Area shall be different from other residential plotted development. All these areas are to be brought under the planning purview. For this, the owners can jointly redevelop on the basis of norms and regulations prescribed in the schemes.

The approach for the three parts suggested is given below:

1. Walled City

The most important part of the Special Area is the traditional Walled City, part of which is a core of the business district. The area is prone to commercialisation, particularly with improved accessibility due to MRTS. The Plan proposes to regulate and shift wholesale trade and industrial activity.

Traditional areas in Walled City need special treatment to conserve its heritage value while retaining the residential character. Redevelopment of government owned katras is to be taken on priority to trigger the reconstruction activity. However, redevelopment would also be promoted in privately owned katras simultaneously. Permission of use/ use activities in use premises and building control regulations shall be as follows:

- (i) The predominant land use of this area is residential with flexible mix use as per the individual scheme.
- (ii) The area surrendered for public facilities or for heritage value to be used as tradable TDR.
- (iii) Street pattern:
The street pattern in residential area is proposed to be restructured with linkages from the metro stations. The minimum road width and prioritizing of road widening are dictated by fire and other disaster management criteria. The streets, having 30m to 50m lengths, shall have 3m width and streets having length more than 50m length shall have 4.5m width. Common facilities shall be located with linkages to pedestrian roads and metro stations.
- (iv) Subject to preparation and approval of an Integrated Comprehensive Scheme, higher FAR upto 1.5 times may be considered than that prescribed for residential plotted

development as per the scheme. This provision is also subject to requirement of heritage controls, parking, accessibility of emergency vehicles and basic services.

- (v) Basement: Permitted only in residential use premises.
- (vi) Development controls and mix-use at premise level as per the scheme.

2. Walled City Extension

Pahar Ganj, Sadar Bazar, Roshanara Road and their adjoining areas are called as Walled City Extension. These are old congested built-up areas mainly with mixed land use. For up-gradation of the environment in these areas, minimum level of infrastructure and parking facilities are to be provided.

The redevelopment in these areas shall be in accordance with the respective comprehensive redevelopment schemes with conservative surgery as a planning tool, as far as possible.

In the Special Area plan, use zones have been marked in different pockets of the 'Other Urban Renewal Areas'. These pockets shall be planned for the respective use zones assigned. The redevelopment schemes for different use zones generally shall adopt regulations prescribed in the development code. However, the Authority may prescribe suitable regulations in case either it is not feasible or not advisable to adopt the general regulations prescribed.

3. Karol Bagh

Karol Bagh has been one of the important commercial centres outside the Walled City. The invasion of commercial activity has pushed out the residential use substantially. Karol Bagh area is due for comprehensive redevelopment on the basis of mixed-use concept with provisions of parking and upgradation of facilities and utilities. The gridiron pattern is to be treated as an asset to regulate and pedestrianise the traffic movement.

Predominant land use of this area is residential with mixed use. The commercial zone will be as identified. The uses other than residential namely retail, repair & personnel service shops, commercial offices, banks and local government offices are permitted on ground floor of plots facing roads not less than 18 m R/W, or in accordance with the Zonal Plan or as per the specific individual redevelopment scheme.

The regulations shall be same as prescribed for residential plotted development or as per the Redevelopment schemes for specified sub-zones.

(III) UNPLANNED AREAS

1. Slum and JJ Clusters, Resettlement colonies and unauthorised colonies.

In-situ upgradation of the land pockets of slum and JJ Clusters which are not required for public/ priority use is the first option for provision of affordable housing for rehabilitation of squatters. Resettlement colonies though planned, are also to be upgraded in a similar way for infrastructure provision. Similarly, unauthorized colonies slated for regularization are also proposed to be improved through redevelopment by ensuring participation of inhabitants. As all these areas provide substantial housing stock to the city, the strategy for redevelopment of these is dealt with the Housing Strategy.

2. Villages

The villages in Delhi have undergone significant physical and functional transformation related with their specific location. Villages are characterized by a mix of different land uses and have similarities in compact built form, narrow circulation space and low-rise high-density developments. These mainly accommodate residential, commercial and industrial uses and function as a mix. It is important that these areas, which

are already established with identified uses, continue to play an active economic role.

Villages of historic and tourism significance should be identified and development plans prepared keeping in view the basic environmental aspects so that over expansion is avoided and the potential of village is optimally realised.

Comprehensive schemes for the development of villages should be prepared by the concerned local bodies with the aim of provision of optimal facilities and services within the abadis and integration with the surrounding areas. Towards the latter objective, development along the peripheries of the villages should be carefully planned, wherever necessary for the provision of services and green/ open areas, circulation, etc. This aspect should also be kept in view while preparing layout plans for urban extension areas.

For provision of social and educational facilities the reduced space standards shall be adopted. Depending on the availability of the land, the facilities like community hall, dispensary etc. may be grouped together.

3.3.2 GUIDELINES FOR REDEVELOPMENT SCHEMES

The basic objective of redevelopment is to upgrade the area by implementing specific schemes on the basis of existing physical and socio-economic conditions in the following way:

- i) Influence Zone along MRTS Corridor, the Sub-Zones of Special Area schemes for redevelopment and renewal should be identified on the basis of physical features such as metro, roads, drains, high tension lines and control zones of Monuments/ Heritage areas, etc.

- ii) The resident/ cooperative societies/ private developers should get the layout and services plan prepared in consultation with the concerned authority for approval.
- iii) Within the overall Redevelopment/ Regularisation plans, the process of building plan approval is proposed at two stages, Planning Permission and Cluster Block Approval.
 - a) Planning Permission is proposed to be accorded for an area of around 4 Ha. This permission may not be required in case an approved layout / Redevelopment / Regularisation plan exists.
 - b) 1. Cluster Block approval may be accorded for a minimum area of 3000 sqm. The owners should pool together and reorganise their individual properties so as to provide minimum 30% of area as common green/soft parking besides circulation areas and common facilities.

2. Within the framework of cluster block approval, the individual buildings shall be given sanction by the concerned authority.
- iv) Amalgamation and reconstitution of the plots for planning purpose will be permitted. Subdivision of plots is not permitted.
- v) In case of plots with service lanes, the lane may be included in the scheme and used as public space. However, no FAR / coverage will be granted and the area is to be used as public area.
- vi) The standards of housing density, minimum width of roads and community facilities can be relaxed, wherever justified by planning considerations (e.g., pedestrianisation of the area).
- vii) The Public and Semi-public uses and services like hospitals, dispensaries, colleges, schools, police stations, fire stations, post offices, local government offices, parking etc. shall be retained in their present locations and also additional sites could be indicated in the Urban Renewal schemes/ Zonal Plans. The Accommodation Reservation (AR) technique would be applicable for the specified facilities. Any change or addition thereof shall be in accordance with the overall policy frame prescribed in the plan.
- viii) Reduced space norms may be adopted for community facilities/ social infrastructure. The land required for any public purpose may be acquired by the consent of the owner through issue of Development Rights Certificate in lieu of payment towards cost of land as per the prescribed regulations. The concept of Accommodation Reservation i.e. allowing construction of community facilities without counting in FAR may also be utilized.
- ix) Subject to preparation and application of integrated/ comprehensive Redevelopment schemes and provision of parking and services, additional FAR may be granted in specific areas/ schemes by payment of additional charges with a view to trigger a process of self-generating redevelopment.
- x) The circulation pattern should include segregation of pedestrian and vehicular traffic, entry control, access of emergency vehicles to every block, provision of adequate parking etc.
- xi) Appropriate levies for increased FAR, and landuse conversion shall be charged from the beneficiaries by the competent authority as per prevailing rules / orders.

- xii) Urban design elements such as urban form, skyline, continuity and enclosure, etc. to be ensured as urban design guidelines.
- xiii) The land uses shall be governed as per the Master Plan / Zonal Development Plan / Layout Plan provisions. The non-residential uses will be permitted as per the provisions of the mixed use policy.
- xiv) In case of identified commercial zones in the integrated schemes, all uses except manufacturing, wholesale and warehousing will be permitted.