

## 8. Housing and Slums

### 8.1 INTRODUCTION

Housing, one of the basic services, which is to be provided for better quality of life, shall be given the importance in the master plan. The increasing level of urbanization has created the stress on housing sector in Ranchi. As indicated by the last two decades of demographic data, it can be seen that there is an increase of population from 1981-2011 but the increase in housing both quantity & quality could not catch the pace of increasing population hence resulting in the housing gap.

### 8.2 HOUSEHOLD SIZE

As per Census 1981, the average household size of Ranchi city was 5.9, which have decreased to 5.2 in 2011, which is lower than the average household size of Ranchi Urban Agglomeration, District (urban) level and State level. The average household size of revenue village within planning area is having low average household size in comparison of Ranchi urban area. The average household size of planning area is decreasing since 1981 till decadal year 2011. The predominance of large family size is an indicator of high of occupancy rate and acute stress not only on housing demand but also on the infrastructure facilities in the area.

As a policy measure and past trend, the average family size is assumed to decline during the plan period of 25 years. Against average family size of 5.2 (2011) for the Ranchi and as well as Planning Area, the average household size of 4.2 for horizon 2037 is adopted for assessing the housing need in Ranchi planning area.

Table No. 8-1: Household Size of State, District and Planning Area, 1981-2011

S. No.	Particulars	1981	1991	2001	2011
1	Ranchi City	5.9	6.0	5.5	5.2
2	Ranchi Urban Agglomeration	5.9	6.0	5.9	5.2
3	Revenue Villages within Planning Area	6.1	6.0	5.8	5.2
4	<b>Ranchi Planning Area</b>	<b>6.0</b>	<b>6.0</b>	<b>5.9</b>	<b>5.2</b>
5	Ranchi District (Total)	5.5	5.6	5.5	5.2
6	Ranchi District (Urban)	5.9	5.9	5.8	5.4
7	Ranchi District (Rural)	5.4	5.5	5.4	5.1
8	State Level	-	-	5.6	5.3

Source: Census of India, 1981-2011

### 8.3 RESIDENTIAL DENSITY

The residential use covers an area of 6915.51 hectares in the Planning Area constituting 51.26 % and 10.60 % of the Developed Area and total Planning Area respectively. The area has a residential density of 210 PPH for the Developed Area, which indicates congested growth of the planning area. Ranchi planning area lacks planned residential colonies and the organic growth has resulted in urban sprawl and inefficient utilization of land.

Table No. 8-2: Existing Residential Density in Planning Area, 2011-12

S. No.	Particulars	Planning Area	Ranchi (RMC)	Revenue Villages
1	Population	1456528	1073440	383133
2	Gross Residential Density (Developed Area)	107	129	75
3	Residential Density (Developed area)	211	208	218
4	Gross Population Density (Developed + Undeveloped Area)	22	61	8

Refer **Map No. 8.1** for distribution of Residential Density in Planning Area

## 8.4 INCOME DISTRIBUTION

The effective housing programme is pre-requisite for proper community health and inevitable for wiping out the housing deficiency. Preparation of housing programme without primary analysis of demand is impossible. Primary surveys were conducted for the quantification of different income levels in Ranchi. Ranchi city has an average income distribution with only 49.13 percent of households constituting the MIG and HIG groups whereas 50.87 percent fall in E.W.S and LIG category with almost 32.51 % of population belonging to the EWS Category. Due to this income distribution, housing development will be a profitable phenomenon if properly planned by local authority. The distribution of households into different income groups based on their monthly income is given in **Table No. 8.3**

**Table No. 8-3: Income Distribution, 2011-12**

S. No.	Category	*Monthly Income (Rs)	% of Total
1	EWS	Below Rs. 3300	32.51
2	LIG	Rs. 3301 - 7300	18.36
3	MIG	Rs. 7301 to 14500	27.17
4	HIG	Above Rs. 14500	21.96

Note: \*As per Report of Technical Group, Ministry of Housing, 2007-12

## 8.5 HOUSING CONDITION AND OBSOLESCENCE FACTOR

During the decadal year 2011, the total numbers of residential houses are 1,75,500 in Ranchi City. In the period of 10 years, there is an increase of 3.32 % of pucca houses, 1.09 % increase in semi-pucca housing units and just 0.05% increase in dilapidated houses in the city in comparison of census 2001. The percentage of residential houses categorized under dilapidated condition is 1.02 %. As per policy measure, the Obsolescence Factor of Ranchi Planning Area is assumed to be decreased from 1.02 % to 0.25 % during the plan period of 2012-2037.

**Table 8-4: Distribution of Houses in Pucca, Semi-Pucca and Dilapidated in Ranchi**

Year	Total Households	Total Residence and residence cum other use	Condition of Houses		
			Pucca Houses	Semi-Pucca Houses	Temporary
2001	1,44,877	1,38,145	1,02,376 (74.11%)	34,435 (24.93%)	1,334 (0.97%)
2011	2,08,126	1,75,500	1,35,883 (77.43%)	44,561 (25.39.33%)	1,790 (1.02%)

Note: Figures of 2011 are estimated

## 8.6 HOUSEHOLD PER ROOM AND CONGESTION FACTOR

It is revealed from the Table 8.5, that the size of dwelling units in Ranchi is showing a decreasing trend during the period of 2001-2011, which is a clear indicator of more demand of housing with smaller dwelling unit size and shift from traditional joint family structure to nuclear family system. An estimated congestion factor of 29.60 % for 2001, decreased to 28.90 % during the year 2011. There is a decadal fall of 0.70 % in congestion factor of the city. Considering the past trend and as per policy measure, a congestion factor of 28.0 % shall be taken for plan period of 2012-2022 and 25.0 % during period of 2023-2037.

**Table No. 8-5: Household per room and Congestion Factor, 2001-2011**

Year	Total HH	Households having No. of Rooms					Total Married Couples	couples with having independent sleeping room	CF (%)
		1-Room	2-Room	3- Room	4- Room	5- Room & above			
2001	1,44,877	32,835 (22.66%)	51,968 (35.87%)	28,430 (19.55%)	17,002 (11.74%)	14,642 (10.11%)	1,52,525	1,09,644	29.60%
2011	2,08,126	40,023 (19.23%)	81,801 (39.30%)	41,849 (20.11%)	27,476 (13.20%)	16,977 (8.16%)	2,26,709	1,66,338	28.90%

Source: Census of India, 2001-2011

## 8.7 SLUMS

The Census of India 2001 has proposed to treat the following as 'Slum' areas:

- All areas notified as 'Slum' by State/Local Government and UT Administration under any Act;
- All areas recognized as 'Slum' by State/Local Government and UT Administration which have not been formally notified as slum under any Act;
- A compact area of at least 300 populations or about 60-70 households of poorly built congested tenements, in unhygienic environment usually with inadequate infrastructure and lacking in proper sanitary and drinking water facilities;

According to the information provided by the Ranchi Municipal Corporation, Ranchi and the consultant's field surveys, there are 95-slum pockets in the planning area housing around 82,816 persons (about 7.72 % of the total population).

Refer **Map No. 8.2** for location of slums in Ranchi Planning Area.

## 8.8 HOUSING SHORTAGE AND NEED

The potential households are going to emerge in next two decades due to economic prosperity and shift from traditional joint family structure to nuclear family system. True measure of housing deficiency would, therefore be reached by the correct estimate of the habitable units by 2037, forecast of the number of families and the economic condition of the population. The Master Plan proposes to facilitate the provision of a fully serviced dwelling unit for each family and reduce the gap between housing shortage and supply through innovative measures.

- Population Projected for year 2037 : 31,57,636

- Additional Population by horizon year 2037 : 17,01,108
- Present Housing Shortage (Nos) : 88,434
- Need for housing units between 2012 and 2037 : 5,08,410

The assessment has been done based on certain assumptions:

- Anticipated population growth as per the growth rates assumed;
- Constant annual household formation rate for the entire Planning Area;
- Decrease in household size from present 5.2 to 4.2 during the horizon period of 25 years;
- Constant household to house ratio of 1.10 for the horizon period of 25 years;
- Congestion Factor of 28 % shall be taken for plan period of 2012-2022 and 25 % during period of 2023-2032;
- Obsolescence Factor of Ranchi Planning Area is assumed to decrease from 4.15 % to 1.15 % during the plan period of 25 years

**Table No. 8-6: Housing Shortage and Need of the Ranchi Planning Area**

Year	Population	Household Size	No. of Households	Natural Housing Need	Occupied Residential Houses	Habitable Houses	Apparent Shortage	Concealed Shortage	Deficit
2012	14,99,461	5.2	2,88,358	2,62,144	1,75,500	1,73,710	86,644	1,790	88,434
2017	17,37,536	5.0	3,47,507	3,15,916	1,75,500	1,73,973	1,40,416	1,527	1,41,942
2022	20,17,780	4.8	4,20,371	3,82,155	1,75,500	1,74,254	2,06,655	1,246	2,07,901
2027	23,44,459	4.6	5,09,665	4,63,332	1,75,500	1,74,517	2,87,832	983	2,88,815
2032	27,22,508	4.4	6,18,752	5,62,502	1,75,500	1,74,798	3,87,002	702	3,87,704
2037	31,57,636	4.2	7,51,818	6,83,471	1,75,500	1,75,061	5,07,971	439	<b>5,08,410</b>

The additional housing units shall be provided in the following manner:

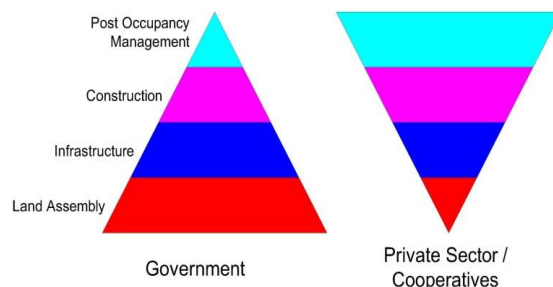
- a) New Residential Developments : 1,82,558 dwelling units
- b) Infill in existing residential areas : 3,25,852 dwelling units

## 8.9 PROPOSED HOUSING POLICY

The main objective of the housing policy for Ranchi Planning Area is not only to meet the housing demand by horizon 2037 but also to improve the residential environment at large. In view of this, Master Plan proposes development of self-sustained residential neighbourhoods.

### 8.9.1 Private Sector Participation

Privatization in the form of individuals and builders/developers should be encouraged to participate in the house building activities. The local administration could provide land with offsite and in-site physical and social infrastructure for the private entrepreneurs to invest in house building. Individual residential plots should be provided to families where more than one dwelling unit could be constructed. In principles, housing has four distinct components for its development i.e., Land Assembly, infrastructure provision, building construction and post occupancy management. The above diagram gives an idea how these activities should be distributed amongst the Government, private and cooperatives making the Government a facilitator for housing development.



### 8.9.2 Role of Government

Government has to play proactive role of promoting the housing industry by regulatory measures and acting as a watch-dog rather than fully involving its organs in the provision of shelter to the town inhabitants. The magnitude of housing shortage is enormous and the State on its own cannot provide the housing stock. Government will limit its role to development of serviced land and subsequently its release to private developers and Cooperative Societies on

premium equivalent to the cost of land plus marginal profit with only advisory and regulatory role in the development of housing industry.

### 8.9.3 Housing of Different Income Categories

The Master Plan recommends identification of priorities in dealing with different segments of the population. Out of the total demand, income category wise demand would be as given in **Figure 8.1**. Fixing the priority in dealing with different segments of the population:

- H.I.G. and M.I.G. dwelling units shall be provided with only developed land at market price to cross subsidize the housing for E.W.S./L.I.G.;
- L.I.G. and E.W.S. should be covered under site and services scheme and finances provided through various centrally sponsored schemes

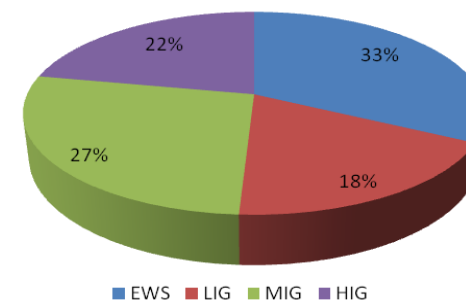


Figure No. 8-1: Housing Demand as per Income Category

### 8.9.4 Group Housing Schemes

To meet the housing demand by 2037, the Master Plan proposes the development of large housing colonies on both sides of the proposed circular road. Economies of scale are favourable to large colonies because of reduced per capita on investment on infrastructure and services development in large colonies. The Master Plan also envisages smart growth of the city to overcome the scarcity of land and regulate sprawl of urban development in rich agricultural hinterland. In the development of colonies, unique physiographic features of Ranchi have been given a significant importance within physical thresholds

providing the advantage that infrastructure of the colonies will never be overstrained.

### 8.9.5 Urban Villages

The peripheral village settlements, which have been incorporated in the Planning Area of Ranchi, are going to be part of its proposed Urban Area Limits during the process of its expansion. At present these settlements do not conform to any urban character and need an 'Action Plan' for extension of water supply, sewerage and drainage facilities and other basic urban amenities and efficient linkages with the main city. In aggregate, 8,67,582 persons are projected to be living in these village settlements by 2037 against existing population of 3,83,133 persons in 2011, which constitutes about 27.48 % of the total projected population of the Planning Area.

## 8.10 CONCEPT OF CITY WITHOUT SLUMS

The Asian Development Bank through a study has worked out comprehensive guidelines for the program – 'City without Slums'. One of the major objectives of such a program is eradication or significant reduction of poverty of urban areas. Besides this, the other objectives are to ensure the following:

- Security of tenure;
- Minimum acceptable standards of municipal infrastructure and social services;
- Improved employment and income earning opportunities;
- Improved education, skills, training and health care;
- Better access to credit and other financial services for house/plot purchase, home improvement, enterprise development and livelihood activities; and
- Improved level of community organization capacity and empowerment

The above objectives are inter-sectoral and inter-departmental. To facilitate the above, the following is envisaged in the Ranchi Master Plan-2037:

- In case of existing slums, which are on Government lands that are not needed for development of any infrastructure or other urban activities, plans for upgrading of slums may be prepared and implemented;
- Other slum pockets may be resettled at appropriate areas with due consideration of their distance from work places;
- Under the housing/slums up-gradation scheme 100 % of beneficiaries need to be provided with financial assistance to improve the structure condition of their houses.

In any new land development scheme, 1% of the total land shall be reserved / developed for informal sector/vendor markets, which should be available to the urban poor families to conduct their livelihood earning activities. Such a land can be for informal sector units in food/vegetable/eating stalls and any other activities. Part of the land shall be developed for night shelter where fresh migrants to the city, having no shelter, could be provided with facility to sleep and have sanitation and bathing facilities.

## 8.11 URBAN RENEWAL

### 8.11.1 Areas for Renewal

The old areas in planning unit (PU-1 and PU-2) have congested residential and commercial areas, which have high building density on land and high occupancy within buildings. Buildings are very old and dilapidated as well as on Narrow Streets. These areas need immediate attention and urban renewal.

Refer **Map No. 8.3** for location of Urban Renewal Area

### 8.11.2 Guidelines for Urban Renewal1

The basic objective of the urban renewal plans are to upgrade the living and working environment by implementing schemes considering the existing physical and socio-economic conditions of the area. The schemes for the urban renewal are to be prepared after a comprehensive study, which should be in the form of a project report and a number of maps and plans. The following sets of plans are considered be essential to project the existing conditions:

- Land Use
- Physical condition of structures
- Facilities and services
- Circulation pattern
- Open spaces, park and playgrounds
- Special feature (if any)
- The plan proposals for the urban renewal should indicate:
  - Clearance areas and areas to be acquired (This would include subsequent plans for redevelopment of these pockets);
  - Population distribution (in relation to holding capacity);
  - Proposed land use;
  - Proposed circulation system (indicating widening of streets, pedestrian streets, parking areas, access of emergency vehicles);
  - Up gradation of facilities and services;
  - The existing Public and Semi-public uses and services like hospitals, dispensaries, colleges, schools, police stations, fire stations, post offices, local government offices, parking etc. to be retained in their present locations and also additional sites required to be indicated in the Urban Renewal Scheme; and
  - Recreational areas (indicating tot lots, parks, play grounds and other recreational facilities)

The urban renewal plans would be prepared within the framework of the land use plan of the area as proposed in the Master Plan. In case of residential areas, the possibilities of mixed use (on ground floor) and street commercial may be explored. Special characteristics and features of the area would be kept in view. As far as possible, the urban renewal project should be self-financing. The neighbourhood for urban renewable areas, whose deficiency can be, filled as per neighbourhood level facility norms.