

## Chapter - VI

### SHELTER

Shelter is a basic need. When the need for shelter is not satisfied, it becomes almost impossible for an individual to think of satisfying his/her family aspirations and intellectual needs. Primary responsibility of any city is to provide its residents with a decent and habitable shelter. A standard housing does not mean merely land and building, but includes basic service like water supply, sanitation and access roads.

6.02 Demand for housing is a universal phenomenon, which exists in all societies, but it varies from “no shelter” to “better shelter”; consequently it is related to economic level of households. An assessment of housing need, demand and supply becomes necessary to work out a meaningful shelter strategy.

6.03 “Housing Need” is an expression of housing requirements, and it is computed based on (i) available housing stock in the base year, (ii) no. of households at the base year, (iii) rate of demolition of dilapidated/deteriorating structures for reconstruction, and (iv) rate of clearance/conversion of ‘*Katcha*’/slum structures for better housing.

6.04 ‘Housing demand’ is related to market with reference to purchasing power, affordability, willingness to raise funds and it may be assessed based on the following major factors viz. (i) the economy of doing a house (temporal choices), (ii) affordability, (iii) willingness to pay (including for construction, maintenance, resource mobilization), (iv) availability and accessibility of housing finance, and (v) availability of residential plot/flats at affordable prices.

6.05 Normally, ‘housing demand’ is less than ‘housing need’ in a developing economy like ours, and these converge when society’s economic level is rich, distributed with less disparity and stable. Hence a housing policy at metropolitan level has to take into account the factors concerned with the housing needs and demand.

#### **Housing Scenario in CMA**

6.06 The decadal growth of households and housing units is given in the Table No. 6.01. (It shows that the housing requirement gap is not significant for the period 1971-91 and there is significant gap in the year 2001).

<b>Table No. 6.01: No. of Households and Housing Units in City and CMA</b>								
	(in Lakhs)				Growth rate in %			
	1971	1981	1991	2001	1971	1981	1991	2001
Households in the City	4.44	6.29	7.96	9.62	--	41.7	26.55	20.85
Households in the CMA	6.89	9.04	11.82	16.19		31.2	30.95	36.97
Housing Units in the City	4.80	6.37	7.98	9.57	--	32.7	25.22	20.55
Housing Units in the CMA	6.63	9.15	12.34	15.83	--	38.00	34.90	29.50

Source: Census of India

6.07 The Table No.6.02 shows that the average rate of growth in housing units is declining when comparing the rate of growth of households.

<b>Table No. 6.02: Rate of Change in Population, Households and Housing Units, 1971-2001- CMA</b>			
	Annual rate of growth in population	Annual rate of growth in Households	Annual rate of growth in Housing units
1971-1981	2.76	3.12	3.27
1981-1991	2.36	3.07	3.03
1991-2001	1.93	3.69	2.63

6.08 The structural characteristics of housing stock in 2001 in Chennai City in respect of predominant materials used for wall is given in Table No.6.03 which shows that 92 percent of the houses are with 'pucca' walls constructed with bricks, stones, concrete and other materials.

<b>Table No. 6.03: Chennai City Distribution of Houses by Predominant Material of Wall, 2001</b>			
Sl.No.	Type of Wall	Number of Houses	% to Total
1.	Grass, Thatch, Bamboo wood, Mud	333959	3.55
2.	Plastic, Polythene	1671	0.18
3.	Mud, Unburnt brick	29438	3.02
4.	Wood	1208	0.17
5.	GI Metal, Asbestos sheets	9061	0.95
6.	Brick	622304	65.03
7.	Stone	49363	5.16
8.	Concrete	208516	21.78
9.	Others	1556	0.16

Source: Census of India

6.09 In Chennai City 75% of the houses are with roof made up of brick, stone, concrete and other materials of pucca nature, about 15% are with semi-pucca roofing materials such as tiles, slate, G.I. metal sheets and asbestos cement sheets, and about 10% are with 'Katcha' materials such as thatched, bamboo etc.

<b>Table No. 6.04: Distribution of Houses by Predominant Nature of Roof – Chennai City</b>			
Sl.No.	Type	Number of Houses	% total
1.	Grass Thatch, Bamboo, Wood, Mud, etc.	90,735	9.48
2.	Plastic and Polythene	2,966	0.31
3.	Tiles	71,403	7.46
4.	Slate	1,662	0.17
5.	GI metal, Asbestos sheets	65392	6.83
6.	Brick	18908	1.98
7.	Stone	5246	0.55
8.	Concrete	696997	72.83
9.	Any Other Material	3767	0.39

Source: Census of India

6.10 Even though the proportion of the housing units with 'Katcha' roofing materials accounts for only about 10%, in absolute numbers it is large i.e., 93,701 and these are vulnerable to fire accidents, particularly in summer months and every such occurrences of fire accidents burn down the whole area of such thatched roofed slums which is common in Chennai city, some times resulting in casualties. The proportion of dilapidated / deteriorating housing units accounts for only about 0.5% of the total households.

<b>Table No. 6.05: Distribution of Houses by Predominant Nature of Floor – Chennai City</b>			
Sl.No.	Type	Number of Houses	% total
1.	Mud	32729	3.42
2.	Wood Bamboo	1003	0.10
3.	Brick	4782	0.50
4.	Stone	5712	0.60
5.	Cement	611892	63.93
6.	Mosaic & Floor tiles	296953	31.03
7.	Any other material	4005	0.42

Source: Census of India

6.11 According to Census, 2001, about 71% of households live in less than three roomed housing units; proportion of households which live in one roomed, two roomed, three roomed houses etc. is given in the Table No.6.06

<b>Table No.6.06: Distribution of Households by Number of Dwelling Rooms – Chennai City, 2001</b>		
Number of Rooms	Households	% Total
No. of Exclusive Rooms	205020	02.47
One Room	318325	38.45
Two Rooms	251659	30.40
Three Rooms	144149	17.41
Four Rooms	57555	06.95
Five Rooms	17938	02.16
Six Rooms and above	17665	02.13

Source: Census of India

6.12 The study on “Shelter Strategy” conducted by the School of Architecture and Planning (Anna University) for PMG, Govt. of Tamil nadu (1995) revealed the following:

- (i) The total households in CMA during 1991 were 12.17 lakh consisting of 9 lakh in the non-slum category and 3.17 in the slum category.
- (ii) The total number of houses in CMA during 1991 was 12.72 lakh consisting of 9 lakh units in the non-slum and 2.72 lakh units in the slum categories respectively.
- (iii) Among the non-slum households 18% belong to EWS, 30% belong to LIG, 22% belong to MIG and 30% belong to HIG.
- (iv) Among the slum households 86% belong to EWS, 13% belong to LIG and 1% belongs to MIG and HIG.
- (v) 44% of the houses are with one bedroom, 35% with multipurpose room, 17% with two-bed room, and 4% with 3 and more bedrooms.
- (vi) 3.47 lakh housing units were delivered in CMA during the decade 1981-91, out of which a little more than half i.e. 1.81 lakh units (52%) were plots, 1.07 lakh units (31%) were houses and only 0.59 lakh units (17%) were flats.
- (vii) Out of the total housing units delivered by TNHB, 51% are meant for EWS, 24% are for LIG, 12% are for MIG and 13% are for HIG.
- (viii) TNSCB has taken up more than fourteen different schemes out of which ten schemes are meant for physical improvement of slums and four schemes are meant for financial assistance to the slum households for improving their shelter units.
- (ix) TNSCB has delivered as much as about 12,000 tenements, about 700 houses and about 5000 serviced plots. Nearly 1.88 lakh households were benefited under different environmental improvement schemes.

- (x) The annual delivery rate of all the housing units put together was 16,000 during 1981 which increased to 41000 units during 1991, an increase 1.5 times. The annual delivery rate of plots alone was 10,000 units during 1981, which increased to 18,000 units during 1991, an increase of 80%. The annual delivery of houses has registered a 150% increase from about 7000 units during 1981 to about 18,000 units during 1991. The annual delivery rate of flats increased from 1,000 units during 1983 to about 6,000 units during 1991, a fivefold increase.
- (xi) Most of the plots delivered under MUDP I, II and TNUDP were meant for EWS and LIG.
- (xii) In the case of MUDP I, II & TNUDP, the above facilities were provided with better quality as the cost per family sanctioned was more. Further under these World Bank aided schemes, patta for the site under enjoyment was also issued to the beneficiary in addition to making available the loan for improvement/construction house.

6.13 Study on “**Effective Demand for Housing in Tamil Nadu**” was conducted in **1995** by the Consultants M/s. STEM for PMG, Govt. of Tamil Nadu. Covering a sample size of 2,255 households in respect of Chennai Urban Agglomeration. The following were the outcome of the study.

**(i) Social Profile of Households**

Madras Urban Agglomeration is spread over Madras and part of the Chengalpattu-MGR District. Total estimated households are 1.14 million covering 5.4 million population. Nearly 92 % of SC & ST households are from lower income groups i.e., EWS and LIG. The percentage of male population is more than (52 %) female population (48% per cent) in MUA. More than 8% are above 59 years of age group. Two out of every three households have been staying at the same place for more than 20 years. Nearly 45% of the households have migrated to MUA. While more than 75% of migrant households moved in from other towns, thus urban-urban migration is a major flow. About 10% of migrant households are from other states and 51% from the same district. Majority of migrants from other states fall in the higher income groups. About 30% of households migrated only for employment purpose, followed by movement of household or spouse.

**(ii) Economic Profile of Households**

About 38% of the households have an income less than Rs.1101 per month, while 9% draw less than Rs.501 per month. 3% of the households have an income of less than Rs.250 per month. EWS and LIG groups account for 72% of the households. The city, thus, has more of poor people houses, on the ground than of rich people

houses, as a skyline. In the case of EWS, the expenditure is more than their monthly income. Major source of income is wages, salary and pension for 90% of households, other investments account only 7%. Of the earning head of households 14% are above 59 years of age and 6% are females as head of households. Only 29% of the members are earners. And only 28% of the households have assets. About 76% of a household's expenditure go for the major and main item of food and essential.

### **(iii) Physical Profile of Buildings**

Nearly 77% of the buildings are accessible through tar roads, and only 14% are approachable through mud roads. 36% of EWS buildings and 31% of LIG buildings roofs and walls are of temporary materials namely thatch/grass. 35% of EWS buildings are dilapidated. 18% of the buildings comprise flats and 41% are independent buildings. 8% of the buildings are put to residential and commercial uses. 53% of the buildings are within 20 years of age. 14% are between 20 to 40 years of age. Nearly 7% of buildings are of more than 3 floors. On an average 2.81 households occupy each building. Average house cost is thrice the annual income of a household.

### **(iv) Amenities**

On an average only 12% of the households have no power supply, however in the case of EWS category nearly one in four households have no electric connection. Municipal water supply, own well or bore well, public tap or hand pump together cover around 89% of the households. 71% of the households have private bathing facilities. 70% of the households have private toilet facility. 65% of households have facilities to dispose sewage into municipal connections and 33% have septic tank or soak pit and remaining percent have open drain and dry latrines. Availability of amenities increases with the rise in income and EWS has far less amenities than others.

### **(v) Tenure Status and Mode of Property Acquisition**

About 46% of the buildings are rented houses and 54% are own houses. Nearly 95% of tenant households do not have any property. Of the owned households, 23% are ancestral property and 22% are purchased from private party. 32% of the households have made full payment for purchased property and only 7% have paid partial payment. Percentage of houses owned increases with rise in income.

### **(vi) Perceptions on Major Problems in Housing**

Arranging own funds and obtaining a loan were found to be time consuming and difficult, more than 25% of households found it very difficult. Preparation of plans and getting them approved were difficult for more than 30% and very difficult for 18% of the

households. Getting water, sewerage and electricity connections were not a problem for nearly 40% of the households. Getting skilled workmen was not a problem in urban areas like Madras.

#### **(vii) Housing Needs and Demand**

Housing needs were computed for 3 scenarios. Housing needs vary from 10% to 23% of total housing stock. In the EWS category, it varies from 19% to 40% units. The housing demand is computed for 5 scenarios. It varies from 1.61% to 22%. The effective housing demand should be based on mixed socio-economic variables. EWS households who desire a house, but cannot afford it, do not come under housing demand and need to be addressed separately.

#### **Slums**

6.14 The Government of India Slum Areas (Improvement and Clearance) Act of 1954 defines a slum as "any predominantly residential area where the dwellings by reason of dilapidation, overcrowding, faulty arrangement, lack of ventilation, light or sanitary facilities or any combination of these factors are detrimental to safety, health or morals. In 1971, the Tamil Nadu Slum Clearance Board, drafting officials from Survey, Statistical, Revenue and Town Planning Departments then, conducted Socio-Economic survey of Madras Slums. For the purpose of the survey, a slum was taken to mean "hutting areas with huts erected in a haphazard manner without proper access, without protected water supply and drainage arrangements and so congested as to allow a little free flow of air to get in". Some of the observations found made in the report are extracted below:

"Slums generally present the most unhygienic, ugliest, nauseating scene. During rainy season, the whole area gets flooded, the pathways become swampy and the entire colony become as fertile breeding place for mosquitoes, exposing the slum dwellers living in the area to all sorts of diseases. During summer, the thatched huts are prone to fire accidents. Thus, the slum dwellers' life is the most miserable one, devoid of all basic amenities.

6.15 To ease the difficulties of the slum dwellers, attempts were made earlier to clear the slums in Madras City. In North Madras, the Corporation of Madras and in South Madras the City Improvement Trust and subsequently, the Tamil Nadu Housing Board were looking after the slum clearance work. They, apart from constructing flats for the low and middle income groups, allotted open developed plots, measuring 20' x 40' in certain areas to slum families. However, further allotments required vast areas of land, and the scheme was given up owing to scarcity of land within the City.

6.16 The Government of Tamil Nadu hold the view that slums are not acts of God, but of human folly and that they can be banished by wise planning and resolute action.

6.17 The Tamil Nadu Government realized that the feeble, halting, incomplete and disconcerted measures of the past have to give place to a comprehensive, integrated and concerted policy to be put through on an emergency footing. It also realized that unless programmes of slum clearance and settlements of slum dwellers are drawn on a more realistic basis, relating them to economic opportunities and provision of social services and social welfare services, the results may well turn out to be frustrating. It also recognized the fact that the slum dwellers are an essential element in city life, and that they are as necessary as any other section of the population for the life of the city.”

6.18 The TNSCB was formed in 1970 and the Tamil Nadu Slum (Improvement and Clearance) Act, was enacted in 1971. The following are the objectives of the Board:

- (1) To clear all the slums in Madras city within a targeted period,
- (2) To prevent further growth of slums in Madras city,
- (3) To give protection to the slum dwellers from eviction and to re-house them in modern tenements and
- (4) To provide basic amenities such as drinking water supply, electricity, storm water drainage etc. to certain slum areas until they are finally cleared.

6.19 The Socio-economic Survey 1971 has brought out the characteristics of slums. Main findings are

- (1) Causes of slums in Chennai:
  - (i) Poverty - Frequent failure of monsoons led to mass influx of agricultural labourers from the adjoining districts to the City. After coming to the City they pick up any manual job (unmindful of the hardships) such as head load carriers, rickshaw-pullers, cart-pullers, domestic servants, petty vendors, carpenters, masons and other manual works. The income they derive from their jobs was very low which was hardly sufficient for a balanced diet, so they were unable to pay for rents for securing decent dwellings and hence squatted on open spaces available near their work spots.
  - (ii) Physical conditions - The low-lying areas and waterfronts served as fertile grounds for the growth of slums.
- (2) Out of the City extent (then) of 128.83 sq.km. slums covered about 6 percent of the total area. They were situated in government lands, City Corporation lands, and Housing Board lands, lands of religious institutions and private land as detailed in Table No.6.07.

<b>Table No.6.07: Ownership of Lands Occupied by Slums, 1971</b>		
Sl.No.	Ownership of land	Percentage of slum families to the total slum families
1.	Private	31.96
2.	Corporation	08.11
3.	Government (State)	35.69
4.	Housing Board / Slum Clearance Board	13.09
5.	Port Trust	0.03
6.	Hindu Religious Endowment / Wakf Board / other missions	09.01
7.	Others	02.12

6.20 In order to provide a comprehensive data base on the number, location and type of slums and their population for overall planning and implementation of specific programmes, CMDA had drawn the services of the consultants M/s. Economist Group, Chennai to conduct the survey of slums in the CMA; it was conducted between April and December, 1986. In this survey, the number of shelter within slums were collected in respect of the slums which were not covered (then) under MUDP I & MUDP II and slum clearance schemes of TNSCB.

<b>Table No.6.08: Survey of Slums in MMA - Slum Population in the Study Region - Covered under MUDP/Clearance, 1986</b>									
Zone	Corporation Divisions	MUDP I		MUDP II		Clearance		All	
		S	F	S	F	S	F	S	F
I Extended Areas	8	3	5276	39	7319	6	2925	48	15520
III South Madras	69	19	3192	70	14060	72	24169	161	41421
IV North Madras	73	51	14102	121	25978	40	17576	212	57656
Madras City	150	73	22570	230	47357	118	44670	421	114597
II Towns in MUA	10 Towns	3	1709	10	3408	-	-	13	5117
MUA	-	76	24279*	240	50765	118	44670	434	119714

Source: Survey of slums in MMA, 1986

S - Slums F - Families Socio-economic part of it was concerned estimation were made based on sample survey.

For the purpose of that study, CMA had been divided into four as follows:

Zone-I - Extended areas of the City covering 10 towns in 8 Corporation Divisions

Zone-II - Peripheral areas comprising 10 towns in the MUA

Zone-III - Madras City : South having 69 Corporation Divisions

Zone-IV - Madras City : North with 73 Corporation Divisions

6.21 Statistics on the growth of slum households and slum population is given in Table below.

<b>Table No.6.09: Growth of Slums in Chennai City</b>				
Sl.No.	Year	No. of slums	No. of the households	Slum Population
1.	1956	306	57,436	2,87,180
2.	1961	548	97,851	4,12,168
3.	1971	1202	1,63,802	7,37,531
4.	1986	996*	1,27,181	6,50,859
5.	2001	1431(CMA)	1,78,000	8,20,000

#### **Pavement Dwellers:**

6.22 According to Survey of Pavement-dweller in Chennai City conducted by the consultant SPARC for CMDA in 1989-90, the number of households who were living on pavements was 9491 at 405 clusters at an average of about 23 households at a place; their population was 40,763 (20,811 Male and 19,950 Female) with 40.2% children population. Unlike other old cities in India namely Delhi, Mumbai, Kolkotta the number of pavement dwellers in Chennai is relatively few.

#### **Delivery of Housing**

6.23 The delivery agencies in CMA can be broadly classified as public, co-operative and private sector. Under the public sector, the agencies operating mainly are TNHB and TNSCB; the agencies which provided housing to its employees are TNPHC, Railways, P&T and CPWD, Port Trust, etc.

#### **Tamil Nadu Housing Board**

6.24 Tamil Nadu Housing Board was established as a statutory body in 1961 under the Tamil Nadu State Housing Board Act, 1961.

6.25 TNHB has been delivering the housing under their different programmes viz. regular programme, MUDP & TNUDP. TNHB was delivering serviced plots and constructed houses and flats under these programmes. TNHB had developed large neighbourhoods with all amenities and facilities within CMA at Arignar Anna Nagar, K.K. Nagar, Ashok Nagar, Bharathi Nagar, South Madras Neighbourhood Scheme (comprising Indira Nagar, Besant Nagar and Sashtri Nagar), Thiruvanmiyur, Tambaram etc. TNHB has also developed Sites and Services Schemes under MUDP-I, MUDP-II and TNUDP at Arumbakkam, Villivakkam, Kodungaiyur, Mogappair (East), Mogappair (West), Maduravoyal, Manali, Madhavaram, Ambattur, Avadi and Velachery. The details of the housing delivered under MUDP & TNUDP is given in the Table No.6.10.

<b>Table No. 6.10: Details of Sites and Services Projects under MUDP &amp; TNUDP</b>				
Project	Scheme	Year of Commencement	Extent (hect.)	No. of Units
MUDP I	Arumbakkam	1977	34.20	2,334
	Villivakkam	1979	71.55	3,751
	Kodungaiyur	1979	84.87	6,094
			190.62	12,179
MUDP II	Mogappair East	1981	74.13	5,062
	Mogappair West	1983	73.00	5,555
	Maduravoyal	1983	26.70	2,048
	Manali I	1986	40.00	2,947
	Manali II	1987	38.00	2,625
			251.83	18,264
TNDUP	Ambattur	1988	141.60	10,806
	Avadi	1988	50.90	4,012
	Velachery	1988	20.90	1,789
	Madhavaram	1988	63.90	4,884
	Madhavaram	1988	60.00	5,000
			337.30	21,441

### **TNPHC**

6.26 Tamil Nadu Police Housing Corporation was established in 1981 to effectively implement schemes for providing adequate housing facilities for the police personnel. It has delivered 4,702 housing units from 1992 to 2002; there are 1,509 housing units under construction by it at various parts of CMA and their proposals in the anvil include construction of 1,378 housing units.

6.27 The Shelter Strategy Study conducted by School of Planning and Architecture, in 1991 revealed that the public agencies had delivered total housing units of 10,555 Nos. from 1981 to 1991 [CPWD (1,854 Nos.), P&T (1,572 Nos.), Railways (2,400 Nos.) Port Trust (500 Nos.), TNPHC (104 Nos.), THADCO (1,125 Nos., and others (3,000 Nos.)].

### **Co-operative Housing Societies**

6.28 In Tamil Nadu, 1,253 Co-operative Societies comprising 196 Taluk Co-operative Housing Societies and 1,057 urban Co-operative Housing Societies, and a State Level Apex institution viz. “The Tamil Nadu Co-operative Housing Federation Ltd”

are functioning to cater to the housing needs of its members. The schemes implemented through co-operative housing societies are:

1. Rural Housing Scheme for Economically Weaker Sections
2. Special Housing Scheme for Economically Weaker Sections in Urban areas
3. LIG, MIG Schemes in Rural areas
4. Urban Housing Schemes
5. Valmiki Ambedkar Awas Yojana (VAMBAY) Scheme
6. Repairs and Renewal of existing houses

Though the number of households benefited in the State from these societies upto the end of 2004 was 11.36 lakhs, their role in delivery of housing in CMA is minimal. According to the School of Planning and Architecture's Shelter Strategy Study, the number of plots delivered by the Co-operative Societies from 1981 to 1991 was only 2,489 in CMA.

### Private Sector

6.29 It can be broadly divided into two. The first one being the private individuals or owner private who construct the house by himself/herself initially with a smaller floor area and adding incrementally when necessity arises and his fund position improves. The second one being the organized private agencies or real estate developers/promoters who acquire land, develop plots, construct houses/flats and sell. The School of Planning and Architecture's Shelter Strategy Study (1995), the total number of housing units delivered by the private sector during the year 1981-91 was 2.73 lakhs; out of which 53% was plots, 37% was houses and only 10% was flats (Details are given in Table No.6.11).

**Table No.6.11: Annual Delivery of Plots, Houses and Flats by Private Sector in CMA During 1981-82 to 1990-91**

Year	Approved				Unapproved			Total			
	Plots	Houses	Flats	Total	Plots	Houses	Total	Plots	Houses	Flats	Total
1981- 82	1528	4181	--	5709	8257	2355	10612	9785	6536	--	16321
1982-83	2019	4676	--	6695	8987	2300	11287	11006	6976	--	17982
1983-84	2602	4523	918	8043	8948	2483	11431	11550	7006	918	19474
1984-85	4667	5076	1067	10810	9721	3003	12724	14388	8079	1067	23534
1985-86	3799	5270	2333	11402	10562	2941	13503	14361	8211	2333	24905
1986-87	2755	4883	2681	10319	11008	3120	14128	13763	8003	2681	24447
1987-88	7652	6673	2726	17051	9112	3411	12523	16764	10084	2726	29574
1988-89	6838	7963	6368	21169	8860	3204	12064	15698	11167	6368	33233
1989-90	10447	12806	6874	30127	8487	3653	12140	18934	16459	6874	42267
1990-91	8817	13728	5896	28441	8905	3916	12822	17725	17642	5896	41263
Total	51124	69779	28863	149766	92850	30384	123234	1438974	100163	28863	273000

6.30 The flatted housing units delivered by the real estate developers / promoters serve only the needs of the MIG and HIG households. LIG housing needs are met by the owner private developments.

6.31 Details on the number of Planning Permissions issued by the Municipalities, Town Panchayats and Panchayat Unions for residential buildings are given in Table No.6.12.

<b>Table No.6.12: Planning Permission for Residential Buildings Issued by Municipality, Town Panchayats &amp; Panchayat Unions</b>						
Sl. No.	Agency	No. of Planning Permission issued for Residential buildings				
		2000-01	2001-02	2002-03	2003-04	2004-05
1.	Municipalities	5544	6541	8000	8557	8579
2.	Town Panchayat	2749	3689	4544	5719	5421
3.	Panchayat Unions	2629	2921	3160	4154	6319
	Total	10922	13151	15704	18430	20325

6.32 Planning Permissions (Nos.) issued by Chennai Corporation and CMDA for residential buildings are given in the Table No.6.13.

<b>Table No.6.13: Planning Permission issued for Residential Buildings by Chennai Corporation and Chennai Metropolitan Development Authority</b>						
Sl. No.	Agency	No. of Planning Permissions issued for Residential buildings				
		2000	2001	2002	2003	2004
1.	Chennai Corporation	4882	4624	4735	6215	5700
2.	CMDA	678	762	688	1032	1323

6.33 Planning Permissions of ordinary residential buildings up to 4 dwelling units and up to G+1 floors are issued by the local bodies concerned and only for the flatted residential developments, group developments and multistoreyed (high rise) developments, Planning Permissions are ordered in CMDA. Assuming the average number of dwellings covered in the Planning Permissions issued by Chennai Corporation as 2, Municipalities as 1.75, Town Panchayats as 1.5 and by Panchayat Union areas as 1.25, and average number of residential Planning Permission issued per annum as 5,500, 8,000, 5,500 and 5,000 respectively, it is estimated that the annual supply of approved housing units will be about 40,000 units permitted by the local bodies. In addition, CMDA issues Planning Permission for annually for about 8,000 housing units. Assuming that the delivery of unauthorisedly constructed small housing units as about 25% of the total supply, then the total delivery of housing units by

private will be about 60,000 units per annum if the present trend continues; it excludes the housing plots delivered by public.

6.34 Details on the number of layouts approved by CMDA, residential plots generated etc. are given in the Table No. 6.14. Private delivers annually about 6,000 residential plots in approved plots. In addition, in the past, the private delivered an equal number of plots in unapproved layouts. Hence the supply of housing plots in the CMA is estimated to be about 12,000 plots per annum by the private.

<b>Table No. 6.14: Layout Approvals in CMDA 1991-2004</b>					
Year	No. of Approved Layouts	No. of Residential plots	Shop sites	Public Purpose sites	School sites
1991	200	14601	132	429	2
1992	176	9640	120	397	--
1993	160	8063	78	516	9
1994	144	6799	93	360	2
1995	103	4823	110	237	16
1996	63	2648	47	91	--
1997	66	1601	33	39	12
1998	59	1840	49	65	13
1999	79	4894	30	98	--
2000	102	4205	36	157	--
2001	82	4575	63	229	3
2002	84	3769	29	80	--
2003	142	7801	90	121	4
2004	143	6200	84	401	20

6.35 Since 1989 CMDA, ensures that at least 10% of plots excluding roads are provided as EWS plots when according approval in cases of layouts exceeding one hect. By this way at least 10 % of the plotted out area in the layout is generated as EWS plots which can accommodate about one third of the population, which can be accommodated in the layout area.

### **Projection of Housing Demand**

6.36 The housing need for CMA was projected taking into consideration the growth of households, vacancy rate, and demolition rate of old buildings and replacement rate. The housing demand is estimated based on the growth of households, vacancy rate, replacement rate and affordability. The following Table gives the details of projected housing need and demand for 2026.

<b>Table No: 6.15 Projection of Housing Need and Demand</b>						
<b>Housing Need</b>						
	2001	2006	2011	2016	2021	2026
Population	7040582	7896230	8871228	9966636	11197763	12582137
House holds	1619000	1754718	1971384	2214808	2488392	2796030
Number of Houses	1583014					
Shortage w.r to 2001	35986	171704	388370	631794	905378	1213016
Vacancy Rate @.5%	7915	8774	9857	11074	12442	13980
>60 Years old building	2.3	1.5	1.5	1.5	0.75	0.75
<u>Demolition Rate</u>	37237	26321	29571	33222	18663	20970
Replacement Rate	18619	13160	14785	16611	9331	10485
<b>Total Housing Need</b>	<b>81138</b>	<b>206798</b>	<b>427798</b>	<b>676090</b>	<b>936483</b>	<b>1247967</b>
EWS (30%)	24341	62039	128339	202827	280945	374390
LIG (35%)	28398	72379	149729	236632	327769	436788
MIG (20%)	162287	41360	85560	135218	187297	249593
HIG (15%)	12171	31020	64170	101414	140472	187195
<b>Housing Demand</b>						
Shortage	35986	171704	388370	631794	905378	1213016
Vacancy	7915	8774	9857	11074	12442	13980
Replacement of Old Buildings	18619	13160	14785	16611	9331	10485
<b>Total Housing Demand</b>	<b>62520</b>	<b>193638</b>	<b>413012</b>	<b>659479</b>	<b>927151</b>	<b>1237482</b>
EWS (30%)	10796	58091	123904	197844	278145	371245
LIG (35%)	21882	67773	144554	230818	324503	433119
MIG (20%)	12504	38728	82602	131896	185430	247496
HIG (15%)	9378	29046	61952	98922	139073	185622

6.37 TNSCB estimates indicate that the slum families in undeveloped slums work out to 1.10 lakhs; out of which 75,498 families are living in objectionable slums. TNSCB has also estimated that there are about 34,752 families in unobjectionable areas and further there are 6,150 families who live in slum conditions in the encroached parts of the tenement areas which have been reserved as parks, public purpose sites etc.

#### **Slums on unsuitable Locations**

6.38 The slums situated on river margins, road margins, seashore and places required for public purposes are categorized as objectionable slums. The areas occupied by them are to be retrieved and handed over to the land owning department to implement programmes like road widening, desilting, strengthening of bunds etc.. Hence the benefits of the various onsite programmes implemented by TNSCB could not be extended to the slums located in objectionable areas. The location of slums is given in Table No. 6.16.

<b>Sl. No.</b>	<b>Description</b>	<b>No. of slum families</b>
1	River Margin	30,922
2	Feeder Canals	5,288
3	Road Margin	22,769
4	Seashore	16,519
	<b>Total</b>	<b>75,498</b>

Source: TNSCB

### **Slum areas on River Margin**

6.39 There are three major watercourses in the Chennai City and the banks of which are encroached. The slum families are living there without any basic amenities and subjected to annual flooding, besides polluting the watercourses. The details of the slums located on river margins are as follows:

<b>Sl.No.</b>	<b>Name of the River</b>	<b>No. of Slum families</b>
1	Cooum River	8,432
2	Buckingham Canal	15,733
3	Adyar River	6,757
	Total	30,922

### **Slums along Feeder Canals**

6.40 The feeder Channels like Mambalam - Nandanam Canal, Otteri Nullah, Captain Cotton Canal etc. are encroached on either side preventing the free flow of water and causes stagnation of water during rainy season in the nearby residential areas. It is identified that 5,288 families are living on the margins of these channels.

### **Slums on Road Margins**

6.41 Besides, the slum families are also squatting on road margins affecting free flow of traffic. It is identified that 22,769 slum families are squatting on the road margins and places required for public purposes.

### **Seashore**

6.42 The Chennai District Collector has identified that 16,519 slum families living on seashore have been affected by Tsunami disaster. Of these 2,200 families have already been rehabilitated at Semmancheri. The remaining families are to be resettled in tenements.

## **Slums on Unobjectionable Locations**

6.43 Besides, TNSCB has identified that 34,752 families are living in slum situated on unobjectionable locations as per its survey. These families are living in deplorable conditions and require to be developed through provision of housing and infrastructure. These slums are dense often subjected to fire accidents, flood etc. Based on previous experience, the TNSCB is planning new strategies for solving the problems of slums.

6.44 TNSCB has been unable to clear all slums and provide houses to the EWS. So far the TNSCB has only been able to construct 72,000 houses or tenements (over a period of 35 years), which works out to around 2,000 houses per annum. At this rate it will be difficult to cover all the remaining 1.1 lakh households in Chennai who continue to live in raw slums.

6.45 Given the enormity of the problem it is increasingly becoming difficult for TNSCB to use these traditional modes/strategies (strategy A) of development, reconstruction and resettlement. These traditional strategies of house being built by the government and its agencies may have to be abandoned due to several reasons, including the following:

- Lack of availability of funds and high cost
- Poor recoveries given the economic strata for which the houses are built
- Lack of availability of lands
- Escalation in the cost of lands
- Lack of in-house implementing capacity, specially in respect of newer, faster building technologies
- Lack of manpower and organizational wherewithal to take up huge works
- Delayed execution due to Governmental procedures having to be necessarily followed and
- Indifferent quality of construction

6.46 Keeping this in view there is a need to go in for other strategies (Strategy B) which can supplement the existing efforts even if they do not replace them. Some of these strategies are based on leveraging the high costs of lands that are often government owned.

6.47 The strategies followed for different categories of slums ( raw slums, developed slums, dilapidated tenements are as outlined .

(i) Strategy A:

6.48 The traditional strategies can be used here like reconstruction, redevelopment using funds and lands provided by the Government. This can be used in the case of raw slums/developed slums/tenements. In the recent past several new schemes have come up which offer a glimmer of hope since they have the mandate of a slum-free Chennai by 2013 and which offer low cost or zero cost funds. Under these schemes it is proposed to construct house in the next two to five years all of which are for the EWS:

- ETRP and Rajiv Gandhi package (tsunami housing): 13,000 dwelling units (these are both reconstruction/redevelopment and resettlement schemes and are coming up in several places in Chennai including Marina, Thiruvottiyur, Tonidarpet, Okkiyumthorapakkam and Semmencheri)
- JNNURM: 10,000 dwelling units (these are resettlement schemes for slum dwellers)
- XII Finance Commission: 5,000 houses (basically in the resettlement mode at several places including Perumbakkam and Semmencheri)

(ii) Strategy B

6.49 TNSCB land (both tenement land and unobjectionable poromboke land) as well as raw slum land can be redeveloped through the BOT route by allowing private developers to reconstruct the existing dilapidated tenements /slum houses on a part of the land and using the rest of the space for commercial exploitation.

### **Night Shelter**

6.50 TNSCB has estimated that annually the people who enter Chennai without provisioning for stay would be around 20,000. A part of them would be finding rental accommodation in LIG areas while some would encroach on public lands. To address their immediate housing needs night shelters need to be constructed.

It is also important that unauthorised encroachments on public lands to be prevented by ensuring that the Government departments protect their lands.

### **Fishermen Housing**

6.51 Chennai is a coastal metropolis and there are 84 fishermen villages along the coast of which 43 are in Chennai City, 30 are in the northern part of City up to Minjur and 11 in the south up to Uthandi. There are 12 landing sites in Chennai (14 and 38 in the northern and southern parts). Housing for fishermen becomes important

particularly because the housing has to be close to their working area namely the sea and the restrictions placed by CRZ for several types of development. According to a recent count there are 36,162 fishermen households with an average household size of 3.81. They live in 31,688 pucca as well as kutcha structures of which 16,482 are in Chennai, 8,439 in northern part of CMA and 6,767 in the southern part of CMA. The growth of population among fishermen has increased by 5% between 2000 and 2005 and thus this trend is likely to continue. At present fishermen housing is dealt by TNSCB and Fisheries Department. Any housing or redevelopment projects for fishermen in the coastal areas should take into account the traditional rights and way of life.