

Housing Scenario – 2010-2030

Urban Population - 2030

Country's 2010 census projects total population of 121 crores out of which 30.1% i.e. 36.42 crores is urban and 84.58 crores is rural. Urbanization rate increased to 2.4% during 2000-2010. Demographers predict that urbanization rate would further increase by 4.30% taking urban population to 34.40% in 2020 and increase further by 6.30% taking it to 40.70% in 2030. By that time country's population is expected to increase at rate of about 1% yearly to reach 150 crores. Thus country shall have 61.05 crores urban population by 2030. It means country will add 24.63 crores of urban population between 2010 upto 2030 (61.05 crores in 2030 less 36.42 crores in 2010). Out of this 24.63 crores about 20 crores is expected migration from rural to urban area whereas balance 4.63 crores be natural addition.

Mckinsey Global Institute (MGI) in it's well documented research report states that it took 40 years till 2008 for urban population to rise by nearly 230 million however it will take only 20 years now i.e. by 2030 to add next 250 million urban people. Five states shall top the list with having more than 50% rate of Urbanisation. Detail of such state is given in table 'A' below :

Table "A"

Name of States	Urbanisation in 2008 in percentage term	Urban population in million	Urbanization rate in 2030 in percentage term	Urban population in million	Fastest rate of urbanisation in percentage term
Tamilnadu	53%	35.4	67%	53.4	18%
Gujarat	44%	25.2	66%	48	22.80%
Maharashtra	44%	47.9	58%	78.10	10.10%
Karnataka	37%	21.6	57%	39.60	18%
Punjab	36%	10	52%	19	9%

By that time i.e. 2030, cities will account for 70% of nation's GDP and generate 70% of net new jobs, drive an almost four fold increase in nation's per capita income and contribute 85% of total tax revenue. It is estimated that 68 cities will have a population of one million plus from present 42. Report further states that following thirteen cities will have a population in excess of 40 million and will drive economic growth given below in Table 'B' details of projected population in various cities with it's GDP contribution.

Table 'B'

Name of Cities	Population in 2030 In millions	GDP by 2030 In U.S. billion dollars	Per Capita GDP By 2030 In U.S. dollars	Ranking as per Capita GDP
Mumbai Metropolitan Region	33	265	8000.00	6
Delhi National Capital Region (NCR) (excluding Noida, Gurgoan, Faridabad & Ghaziabad)	25.9	296	11001.00	2
Kolkata	22.9	169	7000.00	7
Chennai	11.0	78	6600.00	11
Bangalore	10.1	127	12600.00	1
Pune	10.00	88	8800.00	3
Hyderabad	9.8	67	6800.00	10
Ahmedabad	8.4	68	8100.00	5
Surat	7.4	53	7200.00	8
Jaipur	5.4	24	4500.00	12
Nagpur	5.2	37	7100.00	9
Kanpur	4.2	15	3600.00	13
Vadodra	4.2	35	8500.00	4

Housing Demand

In order to accommodate additional urban population of 24.63 crores by 2030, real estate industry need to construct 25 lakh houses/flats/units per year for next 20 years. This is worked out on basis of 5 persons per household amounting to 4.926 crores houses rounded off to 5 crores. This requirement of houses is in addition shortage of 2.65 crores houses estimated by a technical group constituted by Ministry of Housing at end of XIth Five Year Plan. This startling fact raises two fundamental issues one of urban planning concept and second of real estate industry's capacity of scaling up capacity to deliver from present about 5 lakh houses per year to 25 lakh houses per year.

MGI Report projected housing demand based on household income is given in Table 'C'

Table 'C'

Income Segment per annum	Residential space demand Per household in sq.ft.	Affordability price household can pay	Market price of said unit	Affordability gap between capacity to pay & market price
Upto Rs. 90000	275	Rs. 90,000/-	4,40,000/-	80%
Between Rs. 90000/- to 2/- Lakh	600	Rs. 4,65,000/-	Rs. 9,60,000/-	50%
Between Rs. 2/- Lakh to Rs. 5/- Lakh	1000	Rs. 11,10,000/-	Rs. 16,00,000/-	30
Between Rs. 5/- Lakh to Rs. 10/- Lakh	1400	Rs. 27,30,000/-	Rs. 26,60,000/-	Nil
Above Rs. 10/- Lakh	1650	Rs. 74,30,000/-	Rs. 31,40,000/-	Nil

Urban Town Planning –Need for change

Till seventies horizontal development of existing cities to accommodate rising urban population was norm with no concept of FSI. Increased migration ultimately led planners to think about bringing orderly development of urban areas. Thus borne the concept of F.S.I. (Floor Space Index) or F.A.R. This concept came into being for first time in 1967 in metro like Mumbai. Later on this concept of FSI spread to other towns. Till 1990 urban planners were prescribing restrictive F.S.I. with a view to curb migration into big cities and also to save infrastructure cost. This has created a situation in which migrants in search of shelter started settling in “informal sector of housing” i.e. unauthorized construction due to limited housing supply available in formal housing sector. Urban planners failed to stop migration by prescribing restricting FSI. Mumbai being financial capital attracted maximum people in search of jobs but with limited houses in formal sector. Ultimately emerged as “Slum capital” of country by 2010. Fact that almost 55% to 60% of it's 1.20 crores people now lives in slums is testimony to this development model. So is the case with Delhi, Kolkatta, Bangaluru, Chennai etc. where unauthorized housing proliferated. City planners were forced to expand cities boundaries to accommodate people but without first creating civic infrastructure. As a result suburb areas got developed. However looking to ever expanding housing need for urban population, it is neither possible nor desirable to continue with horizontal expansion. Such horizontal expansion would result in conversion of agriculture land into N.A. In such event housing will absorb much of agriculture land so that country may not be in a position to feed 150 crores with two square meals a day. Secondly, horizontal expansion would necessitates providing civic infrastructure such as water supply, sewerage, roads etc. on a much larger area at an enormous cost to be borne by resource starved local self Governments. It would therefore be desirable to restrict “Urban areas” by allowing vertical expansion but with higher F.S.I., leaving lot of open vacant land for agriculture purpose. Another angle to be looked into is bias of urban town planners for segregating office/commercial areas from residential areas. This has resulted in city like Mumbai where about 45 lakh people daily travels by suburban railway from North to South Mumbai where office areas are situated in the morning and reverse journey in evening. In absence of mass rapid transport system in Delhi, it's roads were choke-a-block with private vehicles and private and public buses creating huge pollution. Ultimately problem could be resolved by providing rapid mass transport system in terms of Metro Rail. It has not only ensured less pollution but incidentally increased property prices all along Metro's route. It is therefore necessary to have “mix user” plan in all suburban

localities and integrated/satellite township. Fortunately Planning Commission has taken note of this urban scenario and in April 2012 recommended vertical growth of Indian cities by selectively providing additional FSI beyond permitted index, at an extra charge of at least 50% of the area rate.

Biggest problem facing housing industry is carving out urban landmass for constructing houses from country's total landmass of 331 million hectares which at present divided as follows as shown in Table 'D':

Table 'D'

Sr. No.	Land use	Area in million Hectors	Area in percentage	Remark
1	Agriculture	195.25	59	Increasing population would ensure higher demand for agriculture produce. It would therefore be necessary to higher productivity of agriculture crops in view of conversion of agriculture land into N.A. for housing, infrastructure and industrial use.
2	Forest	69.50	21	This is minimum required to maintain ecological balance.
3	Urban - Industrial and other N.A. land	26.65	8	This is likely to go up in view of massive industrialization, urbanization and infrastructure projects. It is estimated that by 2030 additional land required would be 12 million hectors or 4% of total land area.
4	Unreported land	23.10	7	Future land requirement has to comeform this source only.
5	Barren land	16.50	5	This need to put to better use.
	Total	331	100	

Huge migration into urban areas requires development of outlying areas beyond city limits with required civic infrastructure and having good connectivity to main city. This would ensure development of mini townships wherein water supply, electricity and roads are provided by state

or it's nominated agencies, leaving townships, roads with street light sewerage line with sewage treatment plant to be provided by real estate developers. Better infrastructure not only enhances quality of life but is an enabler of economic growth. Satellite townships near metropolitan areas will be another area in which state will have to play dominant role in land acquisition, infra development, leaving housing development to real estate industry either by auctioning plots or allowing housing development on public-private partnership on predetermined agreed conditions of sharing developed housing areas.

Real Estate Industry – It's structure and capability

By and large industry dominated by small and medium level realtors, developing one or two buildings in a year and is in unorganized sector. Housing Industry at present delivers maximum 5 lakh houses per year against likely requirement of 25 lakh houses per year during 2010-2030 period. There were hardly any pan India player right up to year 2000 leaving exception like DLF, Unitech, Raheja, Hiranandani's etc. However scenario changed from year 2000 onwards. There were hardly any listed companies in real estate sector prior to 2000. At present there are 43 listed companies in stock exchange, signaling slow process of industry's transformation into organized sector. Stock Exchange developed "realty index" looking to growing role of housing in economy. Real Estate emerged as "sunrise" industry for many of country's leading industrial houses. They started real estate as one vertical out of it's many activities. Prominent among them is Tata Housing, Mahindra Life Space Developers, Godrej Properties, BombayDyeing, Adani's, Jaiprakash Associates, Piramals, Sahara etc. Many more are likely to join "real estate" bandwagon in future due to huge unmet demand.

Mini Township

Bigger real estate developers by virtue of it's size went for development of large piece of land for development of "Mini Township". Existing tier I/II cities are not capable of accommodating influx of huge urban migrant population within it's boundary. Besides housing within existing city limit is unaffordable for middle and lower income group. In addition these cities are congested and do not have large piece of vacant land. Developers therefore were compelled to locate for large vacant land parcel on outskirts of metro/tier I & II cities. Industrial houses who have started real estate activity such large scale "Mini Township" development suits best. As a matter of fact such mini township is future of mass housing. Their modus operandi is different

from small and medium level developers. They enter into a Joint Venture with land-owners to share profit. Land-owners bring their land as equity in J.V. whereas companies invest in infrastructure and construction with their expertise. This type of development is asset light compare to asset heavy development in which real estate developers pay for acquisition of land and then start phase wise development which take some years to complete township development. In this process land appreciates over years taking care of interest on investment and still give sufficient profit to developers. In asset light model development has to be completed in a comparatively much shorter period. Needless to state such township development has to take place at substantial distance from main city boundaries, where large piece of land is available at affordable rate. This townships in order to be a successful, need to have a mass transport road/rail connectivity system to enable residents to reach main town for their jobs within one to two hours. These township required physical infrastructure such as roads, water supply, street lights, solid waste management, water and sewerage, treatment plants etc. In addition primary school, market and health centers need to be provided to cater to resident population. All these facilities are required to be created first at enormous cost before people start occupying their flats. Hence real estate developers developing such township need to have deep pocket for substantial investment in infrastructure before housing development. Some of the Real Estate Developers started developing large land parcel to call it a “mini township”.

Sahara Prime City Ltd. is reported to have acquired 25615 acres of land across various tier I, II and III cities with each township spread over 100/300 acres. Phase I of project covers area of 5600 acres and work started in Lucknow (200 acres), Nagpur (106 acres), Coimbatore (113 acres), Ahmadabad (104 acres), Gwalior (106 acres) and Sholapur (120 acres). They are expected to start work in Jaipur, Jodhpur, Rajkot, Aligarh, Kanpur, Siliguri, Bhopal, Madurai, Ajmer, Jabalpur, Kharapur, Guwahati, Jhansi and Satna after obtaining approval from various regulatory authorities. Company has acquired land in National Capital Region at Dwarka and Gaziabad for low cost housing scheme. Such mini township are answer to present urban chaos around all big cities. Such development will pass on responsibility of providing physical infrastructure from resources starved state governments to developers. List of some of the Mini Townships Projects partly completed and under construction is given in Table ‘E’

Table 'E'
List of Mega Township – Integrated Township Project

Sr. No.	Name of Developer	Area	Location	Remarks
1.	ETA Star Property Developers	1200 Acres	Village Sriperumbudur near Chennai in Tamil Nadu	Residential development
2.	Unitech Limited	1750 Acres	Visakhapatnam, A.P.	'Knowledge City' to be developed with residential, commercial and other infrastructural facilities.
3.	Pragati Resorts Limited	450 Acres	Edulanagulapalli Village, Dist. Medak, A.P.	Residential – Commercial with malls and multiplexes.
4.	DLF in Joint Venture with Limitless of Dubai.	9178 Acres	Bidadi near Bangalore	Township is named as New Bangalore about 35 Km from Bangalore.
5.	Jaypee Infratech Limited	500 Acres	Noida – Greater Noida Expressway.	Residential, Retail, Town Centre, Health Care, with 18 hole golf course, 15 lakes with 350 Acres green space.
6.	Hiranandani Construction Pvt. Ltd.	369 Acres	Hiranandani Palace Garden at Chennai	Mixed use township having 30 million sq.ft. of development.
7.	Hiranandani Construction Pvt. Ltd.	583 Acres	Township at Panvel	Mixed use residential township having 18.3 million sq.ft. of residential and SEZ having total area of 18 million sq.ft.
8.	Marg Limited	1000 Acre	Chennai	Commercial Complex with two SEZ and residential complex.
9.	H.C.C. Real Estate	500 Acre	Pune	Integrated township. Company has acquired 230 Acre and balance is under acquisition process.
10.	Ansal Properties & Infrastructure Limited	3,530 Acre	Sushant Golf city – Greater Noida	The project when completed will have 75 million sq.ft. of developable area and will be completed in seven years. Project cost Rs.13,600/- crores.
11.	Rajesh Export	2,000 Acre	Bengaluru	Integrated Township for MIG and lower MIG, having 600 sq.ft. to 1800 sq.ft. flats. Project to cost Rs.36,000/- crores.
12.	M. Tech Developer	525 Acres	Gomti Nagar Extn., Lucknow	Residential development with social, educational and health infrastructure facilities.
13.	Magarpatta Township Development Corpn. Ltd.	400 Acres	Magarpatta city in Hadaspar, Pune.	This is a unique experiment. About 125 land owning families came together for development of this IT/ITES township with residential and other infrastructural facilities.
14.	Sobha Developers Limited in joint venture with Q.V.C. Realty & Chintels India Ltd.	192 Acres	Sector 106-109 at Gurgaon.	Residential – Commercial development in integrated township.
15.	City Corporation	400 Acres	Hadapsar, Pune	Amnora park fully integrated township having social, educational, health and other infrastructural facilities. Project cost Rs.10,000/- crores.

16.	Unitech Limited	340 Acres	Noida, U.P.	Township development with residential & commercial segment.
17.	Paranjape Scheme Infrastructure (P) Ltd.	138 Acres	'Blue Ridge' & Megapolies at Hinjewadi, Pune.	It will have 5800 units in 58 high rises including 100 bungalows. Project cost Rs.3,200/- crores.
18.	Paranjape in joint venture with Pacificia of U.S.A.	130 Acres	Bhugaon, Paud Road, Pune	Residential township with all social – cultural – sports infrastructural facilities.
19.	Kumar Builder	124 Acre	Hinjewadi, Phase-II, Pune	Integrated township to be launched in August 2009.
20.	Kumar Builder	110 Acre	Khandi, Pune	Integrated township to be launched in September 2009.
21.	Kolte Patil Developers	450 Acre	Hinjewadi, Pune.	ICICI venture has 50% share in the projects.
22.	Wave Infra tech Ltd.	1671	Ghaziabad U.P.	Residential area 600 acres with 200 acres green area.

Satellite Townships

Unfortunately, there is lack of any definition for integrated townships. Town planning authorities all over the country follows standard norms of reserving social, educational, recreational and infrastructural facilities, including water supply, sewerage, roads etc in city's development plan. Such type of planning in reality is a planned cluster of residential buildings with a clubhouse and super market but is not a satellite or an integrated townships. Integrated townships have the potential to transform the urban landscape by reducing population pressure on existing metro/tier I and II cities. There is no fixed land area prescribed for such integrated townships. However, some of state governments such as Maharashtra, Rajasthan, Gujarat, T.N. have published guideline for development integrated townships.

Government of India's National Urban Housing and Habitat Policy 2007 under heading of "New Integrated Township and Green-Field Development", vide para 1.12 states "In view of the fact that, 50% of India's population is forecasted to be living in Urban areas by 2041, it is necessary to develop new integrated townships. These Greenfield townships should generally be located a comparatively degraded land excluding prime agriculture areas growing more than one crop with the help of assured irrigation. These greenfield townships should be located at reasonable distance from medium and large existing towns.

Government of India is now planning to bring out a satellite town policy around big cities. Ministry of Urban Development in pursuance thereof has circulated a note to the concerned central ministries and State Governments for their views. At present there are 4 satellite towns

planned around three metros. It is however estimated that once satellite township policy gets shape the ultimate total of such townships is likely to reach 150 throughout the country.

Government of Maharashtra developed a satellite town called Navi Mumbai across Thane creek on 18824 hectares of land in order to reduce pressure of population in Mumbai and to provide affordable housing to people. New city i.e. Navi Mumbai will ultimately house 21 lakh population when all its nodes are fully developed and create 7 lakh jobs. Navi Mumbai's population as on date stands at about 18 lakhs. This has at least proved the concept that solution to ease pressure of population on metro cities is to provide a satellite towns or a dormitory towns. Country has seen development of Noida and Gurgaon in U.P. and Haryana as integrated townships reducing pressure on Delhi. So is the case with Secunderabad developed as satellite town to Hyderabad. As a matter of fact, Government of Rajasthan has published "Township Policy" on 1st January 2002. Similarly, Gujarat Government in August 2007 has announced "Integrated Township Policy". Government of Maharashtra published township policy on 24th May 2006.

Lavasa Corporation a subsidiary of Hindustan Construction co Ltd. is developing 12500 acres of hill township about 45 km from Pune. It is completed Phase I called "Dasve" township. Lavasa Corporation has just started development of Phase II. Similarly, Karnataka Government appointed Centre for Environment Planning & Technology (CEPT) as Architect for designing 570 Sq.km. "Satellite Towns" around Vijay Nagar. This city when completed will ultimately house 5 million people. According to Mckinsey Global Institutes 2010 report, country will need to develop 25/30 new cities in next 20 years. It has envisaged 1.182 trillion dollar investment in providing infrastructure development by 2030.

Futuristic Cities

Ministry of Railway has undertaken laying of 1483 km dedicated western freight corridor starting from Dadri near Delhi and ending at J. N. Port near Mumbai. Government of India formed Delhi-Mumbai Industrial Corridor Development Corporation Ltd., to develop 24 futuristic new townships, industrial areas and special investment regions along alignment of western freight-corridor. Government of India in pursuance thereof initially announced eight regions for setting

up The National Industrial Manufacturing Zone (NIMZ) under the new National Manufacturing Policy. NIMZ is conceptualised as integrated industrial townships with all important element to help the growth of infrastructure, clean and and energy efficient technology, simplified business regulations and necessary social and industrial infrastructure. The concept is aimed of facilitating Chinese model of development for growth in manufacturing, increasing share of manufacturing by creating 100 million new jobs in manufacturing sector by 2020. Following areas are identified by respective State Government affected by freight corridor for development of new cities as shown in Table ‘F’ below :

Table ‘F’

Sr. No.	State	Area in Sq.km.	Location
1.	Maharashtra	84 250 230	Shendra-Bidkim Industrial Park near Aurangabad Nashik-Sinnar Investment Region Dighi Port Industrial Area near Raigad
2.	Madhya Pradesh	370	Pithampur – Dhar – Mhow. Investment Region near Indore.
3.	Rajasthan	150	Khushera – Bhiwadi – Neemrana. Investment Region near Jaipur.
4.	Haryana	380	Manesar – Bawal. Investment Region
5.	Uttar Pradesh	250	Dadri – Noida – Ghaziabad. Investment Region near Delhi.
6.	Gujarat	960	Ahmedabad – Dholera. Investment Region

National Manufacturing Policy speaks of state government acquiring large tracks of preferably fallow land and not in the vicinity of ecologically sensitive and fragile area. Similar development is expected along 1563 km long Eastern Freight corridor starting from Ludhiana and ending at Daukuni near Kolkatta.

Rejuvenation of old city areas

As stated earlier building in old part of big cities like Mumbai, Old Delhi, Hyderabad, Ahmadabad, Baroda, Bangalore, Chennai, Kolkata etc. with passage of time are in rundown

conditions. These areas are in dire need of rejuvenation needing reconstruction/redevelopment of old properties. State's role is to prescribe higher FSI for redevelopment of such properties allowing wider road with vertical development. Small and medium level real estate developers are engaged in redevelopment of such properties. Fortunately, Urban Planning Authorities is encouraging redevelopment of such properties by granting higher FSI not only to accommodate existing occupant, leaving sufficient area for sale in open market to developer to recover his cost of rehabilitation of existing occupants.

Opportunity for Real Estate and Construction Industry

It is difficult to estimate require value of land of about 2500 crore sq.ft. to construct 5 crores flats each of 500 sq.ft. size, since, land cost varies with every location and every city. It would however be possible to estimate construction cost which is Rs. 370000/- lakh croes (2500 crores sq.ft X Rs. 1500/- per Sq.ft. being multistory building). This opportunity for construction industry is awaiting in next 18 years. This is in addition to Rs. 1.182 trillion U.S.dollar required for providing civic infrastructure facilities estimated by McKinsey's Global Institute in it' 2010 report. Detail are as per Table 'G'.

Table 'G'

Infrastructural Facilities	Amount in U.S billion dollars	Physical Quantities	Remark
Water Supply	96	189 liters per day required against 95 liter per day	Increased water use for irrigation and industrial purpose would compel governments to resort to desalination plants on all coastal states as well as rainwater .
Sewerage	100	151 billion liter sewage required to be transported against 42 billion liter per day available.	
Solid Waste	15	377 million tones to be dispose off against 295	In addition to land till method cheapest and

		billion tones capacity.	widening use, it may be necessary to use more scientific way for solid waste disposal such as composting, gas production etc.
Storm Water Drainage	32		
Urban Roads	199	2.5 billion sq.mts will have to be paved i.e. 20 times the capacity in past decade in the country.	
Mass Transits System	392	7400 km of metros & subways	
Affordable Housing	395	700 million to 900 million sq.mtrs of residential + commercial	90 million urban household will be middle class.
TOTAL	1182		

Suffice to say that Real Estate Developers shall have enough opportunity for next two decades.

Real Estate and Construction Industry is facing shortage of skilled and even unskilled workforce. It will have to change the present working style of execution of projects to meet massive housing requirement. Industry will have to adopt prefabricated housing components or use some world class formwork technology such as that of Doka, Aluminium based formwork of Mascon Construction system or MFE Technology (formerly Known as MiVAN far East) or Uno Monolithic Construction method developed by PERI. Fortunately all the companies have opened shop in the country.

Presently all contractors are “General Contractors” doing entire work from foundation to finishing. If such housing requirement is to met, then Construction Industry will need to develop foundation specialist contractors, superstructure specialist, flooring specialist in order to have more output in short time.