

**Urban Housing**  
**Socio-Economic Aspects of Housing**  
**Unit - 2**  
**Lecture - 4**

**Urbanization and Housing Shortage:**

As we seen in the preceding chapters, we already know 31.16% of people live in urban areas, which means that this growing concentration of people in urban areas has led to problems of land shortage, housing shortfall and congested transit which means that lack of available good land or urbanized land and lack of provision of proper housing to the people who have migrated as well as different modes of transport catering to these migrated population.

Before we move into the component of affordability, let us get to know **marginalization:**

As metaphorically as this image portrays, the red one which is excluded, it is otherwise called social exclusion from the society. A margin or a section of people excluded socially, physically, economically from the other sectors of the society. In other words, Groups of people who are socially excluded and experience inequalities in the distribution of resources and power, as well monetary, physical and other resources.

If you take a look at the image above, this has been the growth of population in India. Any other country be it European, American, Pacific country etc, could not cater to this sort of growth. However in India, this is natural/ spontaneous growth. India is able to cater to this growing population, which only goes to show that there is a lack of affordable housing to all the members of this population.

**Affordable Housing in India**

Urbanization has resulted in people increasingly living in slums and squatter settlements and has deteriorated the housing conditions of the economically weaker sections of the society.

Before we get to know, what are affordability criteria, we have to define what is EWS, LIG, MIG and HIG.

### **EWS - Economically weaker section**

This is based on the particular income level of a society. The group further estimated that 88% of this shortage pertains to houses for Economically Weaker sections (EWS) and another 11% for Lower-income groups (LIG), for Middle- and High- Income groups (MIG and HIG), which means that out of the total housing shortage of 100%, 99% belongs to the society of economically weaker section.

To be more elaborate based on the monthly per capita expenditure, we could categorize EWS, LIG, MIG and HIG based on this.

A monthly expenditure of 0 - 3300 in rupees, could be categorized as economically weaker section. So looking at the whole table, we could categorize the estimated number of households in 2007 was 21.81 million, out of which shortage for the economically weaker section was 21.78 million, which means that, the inference, the housing percentage shortage in EWS is 99.9 % is double the estimated number of households. Whereas in HIG and MIG it is lesser than 0.2% only. But in contrary, the private developers now, concentrate more on HIG and MIG, leaving more houses vacant in cities, especially metropolitan cities like Chennai, Mumbai and Delhi.

**So to define affordability**, we have different sources of definition; let us take the first definition;

According to the RICS Report on Making urban housing work in India, affordability in the context of urban housing means provision of 'adequate shelter' on a sustained basis, ensuring security of tenure within the means of the common urban household.

According to the task force on Affordable housing set up by the Maharashtra Urban Planning Authority in 2008, affordable housing for various segments is

defined by the size of the dwelling, in India the average family size is 4.5 and housing affordability derived by the household income of the population.

These two important criteria's according to the MHUPA, defines affordability. This tables details about the EMI and the rent, meaning an average householder shares 30 - 40% of his gross monthly income on housing, which means that out of his whole expenditure, almost 1/3rd to 1/4th of it will be going for the EMI, purchase power or as rent in housing.

According to the KPMG Report on 'Affordable Housing - A key growth driver in the real estate sector', affordable housing is defined in terms of three main parameters, namely *income level, size of dwelling unit and affordability*.

So finally, to conclude we could say that according to Jones Lang LaSalle's definition of Affordable housing.

- > Minimum volume habitation - which means that in a particular enclosure, the amount of air quality, lighting, ventilation, air factors, the volume inhabited by 4 to 5 dwellers in a particular house could be defined based on affordability.

- > Provision of basic amenities - Social civic facilities like sewage, sanitation, water supply, electricity.

- > Cost of the house - it is based on how much a person can afford, based on his monthly income and the location of his house. This plays a key role in increase in the cost of the house or decrease in the cost of the house.

- > Location of the house.

### **Issues in the Development of Affordable Housing**

- > Developing affordable housing in Indian cities faces significant challenges due to several economic, regulatory and urban issues.

We could say that two major issues could be detailed out; One is *Excessive control on Development of Land*, creates artificial shortage, which means that imposing different rules on particular land based on state and central government rules, creates a shortage. It increases the price of a land. When the land as a commodity goes higher in price, housing as a commodity, also gets increased in price which means that the affordability can be low. The last point, *Lack of access to home finance for low-income groups*. Any bank for that matter, it gives clear access to housing finance for the higher income groups and the middle income groups. What happens in the case of lower income groups? So, that becomes an important question that defines affordability and is also an issue in the development of affordable housing.

This is an interesting tabular columns with regard to the pre-construction process. From this tabular column, it is obvious that, before the commencement of the project, it approximately takes about 24 to 32 months which means that 2 to 2 and half years is kept aside for pre- construction period which means that includes; conversion of land use, project letter of intent and license/ Intimation of disapproval (IOD) for 4 - 6 months, Pre- construction approvals from state level bodies, Construction approvals from central bodies for 5-7 months, approval for construction plan sanction, Approvals for commencement of construction. Next comes, the construction period which takes about 24 - 30 months. This is also relates to the increase in cost with regard to materials, labour, household etc. Post construction which includes both inspection and occupancy certificate, which again takes about 2 - 3 months. On the whole, the end commodity takes about 5 to 6 years to be produced.

### **The Private Play to Affordable Housing in India**

There are different push and pull factors which take place. Already the developments have been concentrated on the upper head, upper-mid and the high income groups. Now the developers want to diversify which is again a push

factor to move into affordable housing. On the contrary there is a huge demand leading to high sale velocities in low income housing and few branded players in the low and middle income housing segment, attract developers to gain the first movers advantage, which means that there are different examples in cities which are being practiced recently, targeting the low income section where once you get housing as a commodity less than 10 lakhs, the increase in sale velocity is always there and the need is always there between 5 - 10 lakhs.

The second pull factor, the important pull factor for affordable housing is that improvement in infrastructural connectivity. There is always a hypothesis in India, that affordable housing is kept outside the city, from the city center which increases the cost of transport or mobility infrastructure. Here, improvement in infrastructural connectivity to far-flung locations is increasing their acceptability as residential destinations. So that is another pull factor which also important.

Finally, the several facilitators of affordable housing such as public authorities, international development organisations, international NGOs, also play an important role and activities have been increased in promoting this affordable housing segments.

### **Demand-Supply Dynamics of Housing for Various Income Groups**

One key inference you can feel over here is, there is a huge gap between the demand and supply for low income houses, the share of the demand is almost 35% and what is being provided, the share of supply which is in the lighter pale pink color. So you can notice the stark difference in the demand and supply. On the contrary, if you take a look at the houses beyond 10 lakhs, the share of supply is more than the share of demand, which means that for the high income and middle income, there are nil demands.

### **Home Loan Disbursals by Housing Finance Companies (HFCs)**

This can further draw conclusions by observing the marginal increase in the provision of housing loans above 10 lakhs in the last three years from the graph

above. This only goes to show that banks and microfinance corporations promote housing for more than 10 lakhs, which means that the targeted section which is below 3 lakhs - 5 lakhs are very negligible. So affordable housing segments, should promote these smaller sects of groups through institutional mechanisms to promote more of affordable housing.

### **Estimated Construction Costs For Low-Income Housing**

So for a brief idea of how we could get to the construction cost, every day we come across housing being purchased as a commodity, price per sq foot, which means we get housing as a commodity in major areas, which cost 10,000 per square foot or 20,000 per square foot.

For affordable housing, the cost of the land of the targeted section might cost around 150 to maximum of 250 per square foot. Again, stamp duty and the registration of land will cost around 25 per square foot. The construction cost for the low income groups might be between 800 - 1000 and the legal approval costs another 25. The Gross developer markup rate is around 300 and the finished unit, the stamp duty and the registration of the finished land with the occupancy certificate will cost around 100. All of these sum to form a total of 1,400 - 1,700 per square foot. So if we take an average of a middle income group affording 500 sq foot, this will definitely cost around 8.5 lakhs.

### **The Landscape of Affordable Housing Development (Units Prices less than INR 10 Lakhs) in Major Indian Cities**

This concentrates on major cities. So, you can take a look at different regions concentrated on, the national capital - Delhi, Ahmedabad, Mumbai, Pune, Bangalore, Chennai and Kolkata. There are major developers who contribute to this, including say for example in Mumbai, the Tata Housing development infrastructure limited, Raheja and different developers who have been actively involved in the promotion of affordable housing. The only problem is the location of these affordable housing projects, lie within, 65 - 100 km radius from the city centre.

With regard to Chennai; Nanmangalam, Oragadam and ECR are the areas with affordable housing and the major developers contributing to this successful development of affordable housing are; VBHC, TVC housing, Marg Constructions, Annai Builders which are again 25 - 100 kilometres from the city centre.

## **MAJOR HUBS OF AFFORDABLE HOUSING DEVELOPMENT**

These are taken care from a point in the city centre. Say for example, the distance from the major locations includes from the city centre; in the case of Mumbai - Nariman Point is the city center, in the case of Chennai - Nungambakkam is the city center by different research groups. If you look at this map, which states that from 30, 60, 90 - 150 kilometer radius, there are developments in different countries and these red points indicate the housing projects within that. So, **Inference** states that, Distance from the centre of the city plays an important role creating affordable housing hubs, which again means that imagine I am put up in a housing block which is 100 kilometers away from the city, the cost of reduction in paying the rents or maybe purchasing power might be increase in contrary while travelling 100 km from that place ot the city center.

Just to give a brief about, **Institutional Approach towards Affordable Housing**

The main objective is 'Housing for all' meaning inclusive housing, including the marginalized population of the society, that is called housing for all. The Institutional Approach bifurcates into; the Affordability to Buy and the Affordability to Rent. In Case of buy, which is purchase of power or in case of early monthly installments, you pay for a particular interest rate. The private sector or to be more specific, the developers will be the first part to develop a particular project with the help of Government bodies; ULB - Urban local bodies, UDA- Urban Development Authorities, RBI - Reserve Bank of India, with the help of financial institutions like banks and other micro financial institutions that fund the particular product.

In case of the Affordability to rent, especially for the lower income group; the first Enablers would be Self-help groups or the Non-governmental organizations, which lead to the Providers who may be Urban local bodies/ Financial institutions and other research institutes promoting low cost technology in construction. Finally, the Executor, the end point where the Private developers/ the Public Private Partnership Companies play an important role.

Here are a few articles for you, just for a reference about how affordable housing is getting a teaming reaction in India. Especially, as it states, Mhada which is Maharashtra Housing and Urban development Authority, joins hands with Private developers.

Activities of affordable housing by NGO by Shabana Ami in Mumbai are also becoming more famous in promotion of affordable housing projects.

All this focuses down to a point, 'Can houses for economically weaker section coexist with others?', me as a high income group or a middle income group, might want to stay with lower income income group or the economically weaker section, this growing social gap has to be negotiated by urban planners, policy makers and architects. We as designers should take care and that 60% of those who answered yes, make it possible by inclusive housing, providing the weaker section a part within the housing complexes, even though there are many policies and rules saying include 10% of that for the EWS but that actually doesn't happen.

## **Policy Framework and Regulations for Affordable Housing**

**Central Level Schemes:** which enables promotion of different housing programs as we can see;

- > National Urban housing and Habitat Policy (NUHHP), 2007, which we have already looked at in the preceding chapters, along with JNNURM.

- > Jawaharlal Nehru National Urban Renewal Mission (JNNURM)

- > Basic services for the Urban Poor (BSUP)



> Integrated Housing and Slum development Programme

> Interest Subsidy scheme for Housing the Urban poor (ISHUP)

> Rajiv Awas Yojana - would be the major component of today's lecture series, which we will be looking into detail, a pilot project in collaboration with Tamil Nadu Slum clearance board.

### **RAY - Rajiv Awas Yojana**

It is an Indian Government program that attempts to help slum dwellers gain appropriate housing and address the processes by which slums are created and reproduced. As we already know, since the slum act 1956, slum eviction was a major part at that time, then it came into slum improvement, slum improvement trust reform, rehabilitation, redevelopment and finally now, addressing slum situation is possible only through community participation, public awareness and involvement of a bottom-up approach. Rajiv Awas Yojana, also tries to get that link through different housing programs within the country.

#### **Key Objectives of Ray:**

> Improving and provision of housing, basic civic and social facilities in slums. The first thing that strikes a mind is, lack of hygiene facilities, lack of sanitary facilities, lack of different social and civic infrastructure. So addressing these, improving them, is the first important strategy of RAY.

> Enabling reforms to address the formation of slums.

> Institutional mechanisms to create affordable housing stock. Especially involvement of different finance cooperation's and access of housing could be made possible only through financial institutions.

> Empowering community by participation in decision making. In India, especially the diversity in India, has led to this empowering community. If we are in a

community, we could do more and especially when we involve in decision making, when we create our own affordable housing stock, it plays a major role.

## **Pilot Project - Tamil Nadu Slum Clearance Board**

### **Rajiv Awas Yojana Pilot Project Proposal**

1056 Tenements at Athipattu in Ambattur, Chennai, Tamil Nadu

*Project Cost:* Rs.84.92 Crores.

Let us take a look at the small detail of **Chennai City Profile:**

*Chennai Corporation Area* - 426 sq.km

*Number of Zones* - 18

*Number of Wards* - 200

*Number of Identified slum area* - 1666

*Population* - 46.81 lakhs

*Proportion of slum Hhs to urban Hhs* - 28.5%

There are 18 wards out of which, the proportion of slum households to urban households is 28.5. So most of the slum dwellers live along the banks of the Adyar river, the Cooum river, the Buckingham Canal and other small streams. This has led to the major formation of slum along Coovum rivers and other water bodies.

The focus of today's lecture is, **Kakaji Nagar Slum Details:**

This is a 30 year old slum which includes population of 5,578 and number of families include 452. So on average, 4.5, the average household dwellers come to

around 4.5, which is again to the portion of Indian household level out of which 1810 are employed.

### **The Location and Morphology:**

The location and morphology of the entire slum states that, it is a linear morphology which means that it is a train like structure, an organic form of development is restricted within two urban grids. So, as you can see the two major roads and the slum which is organically being developed through those in a linear morphology.

These are some of the existing problems in the slum; High voltage tower line, Water supply- Conduit pipe line, Cluster of huts which leads to lack of ventilation, proper lighting, sanitation problems and Tin sheet roof houses, which means that there are no permanent structures, mostly temporary structures.

### **Socio Economic Status of Kakaji Nagar**

Out of the total population - 5578, the socio economic status reveals that, male contribute to 51% of the entire population. While females contribute to 49% of the entire population. Out of which, the literacy rate for the both of them crosses 50%. This in turn helps determine the need for which type of education schools to be set up, either elementary, primary, higher secondary etc, this helps indicate the urban development of slums.

### **The Monthly Income of the Entire Proportion of the Population**

These interesting pie charts, provide information; 1st graph say for example - the monthly income of the entire proportion of the population living, lies within the target of 2500 - 5000, which means that most of the category of people fall below poverty line or the economically weaker section of the society. The people who are living in it are mostly the Schedule Caste and Scheduled tribes which contribute to around 57% of the entire population. The usage of toilets plays a very important role, according to statistics, 44% of the population use toilets

within the house and 39% use outside the house and very few use open spaces or public toilets. This gives you the idea of, less than 1% have permanent houses. There is a need to make these tin structures, a permanent structure while the remaining are the ones with tin sheet roofs and huts. In order to convert these structures to permanent houses, here is one method that was utilized.

### **Community Mobilization**

As a foreigner or a person who doesn't belong to a particular slum, one cannot get inside a slum and access their resources, they must familiarize with the community, to get to know each other and take your action plans as steps.

The next process is;

### **Socio Economic Survey**

This helps provide information with regard to information about education, literacy rate, how many are employed, how many permanent structures etc. This helps provide the necessary information required for re-development programmes.

### **Location of Existing Slum and Relocation Site**

#### **Details of Community Facilities**

#### **Existing amenities at relocation site:**

As you already saw this linear morphology, in this zone which has been transferred to the seventh zone shown in the red dots over here, which means that there is a morphological change of the slum settlement in terms of relocation which might be positive or negative. The details of the community facilities that have been provided, within the community includes;

- > High School - 1.2 km distance
- > Higher Secondary - 3 km distance

- > Police station - 1.6km distance
- > Post office - 1.6km distance
- > Bus Stand - 2.5km distance
- > Railway station - 2km distance
- > Health Centre - 2km distance

All these are taken into consideration before developing the entire project. So as you can see, all of it is located within 1.5 to 2 mile radius and mostly within 1.5 km radius. Beyond this there are proposed amenities;

#### **Proposed Amenities:**

- > Ration Shop
- > Primary School
- > Library
- > Integrate Children development service centre (ICDS)
- > Community Hall and Vocational Training Centre
- > Convenient Shops

All these proposed amenities would be based on the socio-economic survey we saw in the previous slide.

#### **Athipattu Scheme Layout**

##### **First, Second And Third Floor Plan**

##### **Ews - One Unit Plan**

You have a proportion; the morphology is divided into two through this service road which acts as an entrance. You have a proportion of middle income group and the proportion of EWS and LIG groups and there is space reserved for EWS in phase two, which means that, this is a phase wise development.

You can see two blank spaces on the top, which again could be let out as commercial spaces. This is an interesting scheme followed called, Cross-subsidy system, which we will be looking into later. So, the proposal includes, a central

core of staircase, which has a ventilation through this and a corridor of 1.83m wide serving 1, 2, 3 and 4 houses. It enters through a living space which is ventilated with an open to sky space, which again ventilates the kitchen, which is 1.44 by 0.91, which serves a small bedroom with a loft provision given above and a balcony which serves an entrance to the water closet and bath. So, it is carefully planned to match the need of that society.

This gives you a detailed plan of the entire structure and each house is provided with an internal water supply and sewer unit, Individual Fibre reinforce plastic Overhead tanks and separate power connection with internal electrification. All the civic social facilities have been provided within the community and the plinth area is about 36.53 sq.m (393.45 sq.ft). The Carpet area is about 25.16 sq.m (270.72 sq.ft)

### **Proposed Infrastructure Amenities**

- > BT, Concrete roads and concrete pavement around the blocks.
- > Roads
- > Culverts
- > Storm water drain
- > Rain water harvesting which is again done in high income homes.
- > Water supply from deep bore well for ablution purpose external sewer lines.
- > Street lights
- > Tree planting and development of park in terms of providing communal activities and facilities. It is again to foster the community, to get outside and mingle, with different social sectors of the society.

### **Funding Pattern**

## **Pilot Proposal - Funding Resources**

The Funding pattern was very simple; the government of India's contribution to the entire project was 34.72 Crores and Tamil Nadu Government's contribution which means that under RAY's scheme, there is a proportion of the project cost that is borne by the Central government and a proportion by the State government. The beneficiary contribution i.e the people who are going to live there, are marginally contributing to about 6.4 crores and the amount to be received by selling 192 flats would be 51.81 Crores, which means that 192 flats of 771 sq.ft at a rate of 3500 per sq.ft will contribute to 51.81 Crores. The amount to be received by selling of commercial plots would be 8. So out of this, this is being cross subsidised by cost of construction which is 84.92 crores, cost of construction 34 and Corpus fund for maintaining. So any RAY scheme would be maintained by a particular implementation scheme through communities and for that maintenance purpose, you would be allocating a particular fund. The entire construction fund is being cross subsidised by the amount received here. This interesting proposal means that there is a 'cross subsidy system', in simple words taking from one profit and releasing it in the construction of another.

Pilot project is now proposed in Chennai with an innovative method - Cross subsidy system by which 15% of the cost of construction of 1056 slum tenements will be met out from the profit generated through the sale of 192 MIG flats, which again means that there is a community fostering and commercial plots in the same area. In the first slide, we were talking about social inclusiveness, so this is a housing complex which has different social sectors of the society, including the economically weaker section, low income group and the middle income group. So, on the whole, there is a community fostering and as well as inclusiveness that is being generated through the Cross subsidy system.