



HOUSING FOR URBAN POOR IN AURANGABAD CITY

SWAPNIL P. SHROFF

M. Arch Urban Design,
Dept. of Architecture,
MIT College, Aurangabad
(MS) INDIA

SHARAD MAHAJAN

Professor
Dept. of Architecture,
MIT College, Aurangabad
(MS) INDIA

ANKITA AGRAWAL

Assistant Professor
Dept. of Architecture,
MIT College, Aurangabad
(MS) INDIA

ABSTRACT

Cities are often seen as indicators of development. The cities, irrespective of the scale, size, offer possibilities of varied employment and services and as a result act as focal points for development opportunities. Hence people from various backgrounds migrate to the cities in search of better opportunities. This escalating rate of rural to urban migration is the main cause of population growth in the cities. The growing population generates more demand for the provision of shelter. Housing is not only a dwelling unit for shelter; it also includes a set of amenities and facilities like health care, water supply, sanitation, hygiene, etc. A large number of urban poor find it particularly difficult to build a shelter on their own due to this multifaceted nature of the housing market. The public sector plays a key role in the provision of housing in such scenarios. To tackle the issue of housing, it is not just adequate to provide housing units in large numbers but should also address the quality of built environment so as to make the planning relevant to the user. Such evaluation would help solve the issues faced in the current housing misfit between the actual needs of the users and the built environment. This paper intends to understand the relationship between the urban poor needs and existing public housing in the Aurangabad city context.

Keywords: Urban Poor, Affordable Housing, Public Mass Housing, Urban Poor needs, Aurangabad City



2 INTRODUCTION –

Cities are indicators of development. On the other hand, these cities cannot be developed without thorough planning. Urban planning in India is turning into a challenge attributable to the exceptional urban growth and has given rise to urban complexities and inequities. Currently, India is the second most populous country in the world; it has about 31.16% urban population (Census of India, 2011b). As the country is progressively urbanizing, a distinction between the urban poor and the urban non poor arises due to the non inclusive urban planning. In cities, the slums are the mainstay of the urban poor population. India has about 38% of population which dwells in slum areas across the cities. The urban population of India has amplified with a decadal rate of growth of 31%, whereas the slum population has increased with the rate of 25.1% (Primary Census Abstract for Slum, 2013). Slums, considered a by-product of urbanization, are increasing with the numeric rise in urban population and cities. The principal reason for this is often the non accessibility of knowledge regarding the urban poor population. There is a huge data based gap on urban poor population who provide inexpensive services to urban middle and rich classes, and thus have been excluded or ignored in planning.

India being a developing country has the subsequent issues associated with housing:

- The rate of growth of population is high and rapid
- Significant component of population is below the poverty line
- Shortage of water supply
- There is a crisis of shortage of power supply
- Material used for construction are of lower quality
- Cost of construction is high

The urban poor population in India is ever increasing even when the government is putting constant efforts to address their housing, education, health and livelihood necessities through social protection schemes, goal-based approach.

The planning cannot be initiated without defining the problem, and problem cannot be understood without standardized, adequate, significant, and accessible data. Without data, the issues are often concealed, options are less, and the initiatives remain directionless. In designing for urban poor, the issues of accessibility, awareness, availability, and affordability are prominent because urban poor differ from urban non poor on these four parameters.

It is vital to bridge the gap between urban poor and urban non poor to build inclusive cities that are able to offer quality life to all. In economic planning, money is the focal point, whereas in urban planning, it is the quality and standard of life. Standards for “quality life” cannot be set dissimilar for rich or poor.

1. RELEVANCE OF THE TOPIC

People squander most of their time in built spaces. Without appropriate living quarters, people cannot be productive members of a society, and the family as the primary social group, cannot normally function.

The problem of housing is crucial in the urban context due to the massive gap in demand and supply of resources like land, building materials and human resource for construction. This has created housing a significant economic investment for people and thus there is a constant demand for affordable housing for the urban poor.

The demand for housing for the urban poor has created housing agencies to concentrate on the quantity of housing units provided through the public housing projects. However, it is necessary to investigate the quality or the standard of the built environment.

There is a need to critically review the planning and design of mass housing projects not solely as technological or economic solutions to provide a shelter for the economically disadvantaged but also to cater to their social needs and to the improvement and development of their quality of life.

Hence this research work aims at a holistic understanding of the factors that influence the better design of houses according to urban poor’s expectations, and creating financial products tailor made to their economic condition, a mass market can be unlocked at the foundation of the economic pyramid for urban poor housing. With such targeted interventions, we can create and sustain a more inclusive urban economic growth.

In Aurangabad, around 80,000 applications were received through PMAY online scheme. This represents that a large chunk of population staying in the city are currently without permanent houses or stay in rented houses. Hence it is a desperate need to address the housing issue in the city.

2. LITERATURE REVIEW

2.1. URBAN POOR

The United Nations (UN) defines poor as a denial of options and opportunities and as a violation of human dignity. This implies a lack of the basic capacity to participate effectively

in society, and living in marginal or fragile environments without access to basic services such as clean water or sanitation (UN, 2009; UNDP, 2006).

The World Bank (2003) conjointly defines poorness based on economic income of the individual. A person is considered poor if his or her income level falls below the minimum level necessary to meet basic needs. This minimum level is generally known as the 'poverty line'. It is a necessity to satisfy basic needs varies across time and societies. Therefore, poverty lines vary in time and place, and each country uses lines that are applicable and appropriate to their level of development, societal norms, and values (World Bank, 2005).

2.2. HOUSING DEMAND

The problem of housing is critical in the urban context due to the huge gap in demand - supply of resources like land, building materials and human resource for construction. This has made housing a heavy economic investment for individuals and hence there is a constant need for affordable housing for the urban poor. According to the National Housing Bank, there is a demand of 18.8 million housing units (2012-17) in urban areas of which 95 percent of the demand is for the EWS and LIG. To cater to this overwhelming demand, the government has been facilitating provision of shelter to the poor through public housing projects. The existence of slums is primarily an urban trend. The urban development and dynamics make it difficult to acquire affordable shelter on their own for the EWS and LIG. The lack of employment security and financial collateral has compelled them to depend on public housing projects for their housing needs.

2.3. GOVERNMENT POLICIES

There are several programmes and schemes that are aimed at providing housing for the urban poor. Housing developments built by the government agencies are facilitated to the urban poor residing in slums and they then pay back the subsidized cost of the housing in instalments. Some schemes grant straight financial support in the type of subsidized building materials and credits to the poor in building their houses. Several government agencies also provide knowledge and training in affordable building materials and construction techniques. The following are some of the housing schemes formed by government for development of housing schemes for weaker Sections of the population:

	YEAR	SCHEME		AMOUNT CENTRAL ASSISTANCE
PHASE 1 GOVERNMENT AS PROVIDER	1952	EWS	Economically Weaker Section Housing	Not available
	1952	SIHS	Subsidised Industrial Housing Scheme	Not available
	1954	LIGHS	Low Income Group Housing Scheme	Not available
	1956	SAIC	Slum Area Improvement and Clearance Programme	Not available
	1958	UCD	Urban Community Development	Not available
PHASE 2 GOVERNMENT TO AID	1980	MNP	Minimum Needs Programme	Not available
	1980	SS	Sites and Services Scheme	Not available
PHASE 3 GOVERNMENT AS FACILITATOR	1986	20PP	20 Point Programme	Not available
	1988	NSS	Night Shelter Scheme (Community Housing)	Not available
	1989	NRY	Nehru Rozgar Yojana	Not available
	1995	PMIPEP	Prime Minister's Integrated Poverty Eradication Programme	Not available
	1996	NSDP	National Slum Development Programme	3850 crore
	2001	VAMBAY	Valmiki Ambedkar Malin Basti Awas Yojana	Not Available
	2001	RAY	Rajiv Awas Yojana	1595.55 crore
	2005	JNNURM-BSUP	Jawaharlal Nehru National Urban Renewal Mission - Basic Services for Urban Poor	10,662.16 crore
	2005	JNNURM- IHS DP	Integrated Housing and Slum Development Programme	6431.8 crore (Oct 2015)
	2013	NULM-SUH	National Urban Livelihood Mission – Shelter for Urban Homeless	5071.44 crore
	2016	PMAY	Pradhan Manthri Awas Yojana	1629.11 crore

Table 1: Housing Schemes by Government

Source: Kanad Pankaj, IJSER, Volume 9, Issue 7, July-2018

In India, the formulation and implementation of the housing program is the duty of the State Governments. The Central Government provides to the needs of the State Governments.

The following are some of the housing schemes initiated by the government for development of housing:

- Integrated Subsidized Housing Scheme: The scheme commenced in 1952, it aims to provide residential accommodation at subsidized rates to the Economically Weaker Sections (EWS) of the community. Under EWS Housing Scheme, financial support of

Rs.5,000/- will be given for the eligible persons whose monthly income does not exceed Rs.700.

- **Low Income Housing Scheme (LIG):** This scheme was started in 1954 to support those, whose income ranges between Rs.701 to Rs.1,500 per month. This scheme covered those houses, whose price of construction was not exceeding Rs.30,000/-. The loan assistance approved by the government was Rs.23,500 which represent 80% of cost of production.
- **Middle Income Housing Scheme (MIG):** The MIG housing scheme launched in 1959, is financed by LIC as loans were given to the eligible people whose monthly income ranges between Rs.1500/- to 2500/- . Loan assistance was limited to 80 % of the cost of building subject to a maximum of Rs.40,000/-. Loans were also granted for purchase of readily built houses.
- **Jawaharlal Nehru National Urban Rural Mission (JNNURM):** This scheme was launched by Ministry of Urban Development, Government of India at National level. The aim is to sponsor reforms and fast track planned development of the Cities. Focus is to be on efficiency in urban infrastructure and service delivery mechanisms, community participation and accountability of housing agencies towards citizens.
- **Valmiki Ambedkar Awas Yojana (VAMBAY):** Valmiki Ambedkar Awas Yojana (VAMBAY) is a centrally sponsored scheme by Ministry of Urban Development, Govt. of India for the assistance of Slum Dwellers. The scheme is principally geared to improve the housing issues faced by the Slum Dwellers living Below Poverty Line in different towns and cities of the State. The objective of Valmiki Ambedkar Awas Yojana (VAMBAY) is primarily to provide shelter or improve the existing shelter for people living Below Poverty Line in Urban Slums.
- **National Housing Policy (NHP) 1998:** The Government through a National program declared 'HOUSING FOR ALL' as a priority area and had set a target of construction of 2 million houses every year.

2.4. URBAN POOR NEEDS

There is an urgent need to re-examine the design of mass housing projects not only as technological or economic solutions to provide a shelter for the economically disadvantaged but also to cater to their social needs and to the improvement of their quality of life. Failing to do so may result in the creation of unhealthy and socio-culturally misfit modern residential environments for the urban poor.

2.5. HOUSING TYPOLOGY

The housing typologies included contemporary vernacular houses, western apartment houses, duplexes, single family houses and traditional courtyard dwellings. There is an urgent requirement for the government and other sectors, engaged in public housing industry, to mull over the suitable housing typologies and residential preferences of end users within different sub cultures for sustainable future housing.

2.6. RESIDENTIAL OPEN SPACE

Open recreation spaces offer social and economic benefits apart from aesthetics and health benefits. The percentage and the effective allocation of open spaces impact the perception of the residents. There is a direct relation between open spaces and their effect on socio-economic status of people. The open spaces have a positive effect on psychological development of people living in surrounding and their quality of life along with appreciation of their properties. Appropriate organisation of spaces based on levels of privacy such as streets, common spaces as semi public, spaces around buildings as semi private and spaces belonging to individual houses as private. Resident's perception of space is affected by site layout and its clarity in spatial definition. When spaces designed are more comprehensibly socially and physically distinct also more legible in terms of space hierarchy, they are frequently and appropriately used.

2.7. DWELLING UNIT

Dwelling space can be studied in terms of size, organization, and changes and alterations on physical attributes. The users of the dwelling accomplish contentment by changing the physical characteristics and attributes of the surrounding environment to alter and create more flexible and more adaptable spaces to cater their own needs. It is observed that the utilization of same space accommodates different activities during different times of a day as well as seasons of a year. This prescribes overall space requirements instead of making specific space recommendations for specific functions. Such multiuse spaces should be provided both in the form of enclosed and semi enclosed spaces. The recommendations apart from the climatic comforts for these spaces are as follows: possibility of these spaces to be divided into two separate areas for purposes like sleeping at night, formal and informal use, spaces should be neutral in form and allow variety of uses to be made of them, there should be scope for future expansion, overall space requirements may be calculated on the basis of sleeping space requirements. The standards can only be used as a guideline for formulation of policies and programmes to suit the needs of various economic and social subgroups in the society.

Literature review reveals that the location of the housing, in relation with the city determines the functional efficiency in terms of proximity to amenities such as transport, daily commercial needs and social infrastructure. The housing scale determines the density of the housing and the apportioning of resources including open spaces. As the increase in density

results in crowding, social harmony decreases leading to social tension among residents. The scale of the housing is also said to influence the security of housing by means of familiarity among residents and natural surveillance. The building typology determines the ability of the resident to personalise the dwelling unit through extensions to the floor area, contributing to both functional efficiency and identity. The territoriality of the outdoor spaces and its functional use by residents are also related to housing typology. The design of open spaces and dwelling units is significant in public housing since the units have minimum carpet area which affects the functional efficiency of the space. The quality of building structure finishes and services influence the functional efficiency of the dwelling and image of the housing.

3. AIM

To have a comprehensive understanding of the needs of the urban poor and existing provision of public mass housing in the Aurangabad city so as to have sufficient and qualitative supply of housing to meet future needs.

4. OBJECTIVE

The research mainly focuses on the several aspects of housing for urban poor in Aurangabad city. The main thrust of this research is to examine various concerns of urban poor. The subsequent objectives have been framed for this research, these are as follows:

- To understand what are the needs of the urban poor
- To study existing various Government schemes of housing for urban poor in Aurangabad
- To investigate the relation between urban poor's needs and existing provision of public housing in Aurangabad city
- To determine factors to facilitate sufficient and qualitative supply of shelter for the urban poor

5. RESEARCH QUESTION/ PROBLEM STATEMENT

What mechanisms can be utilized to facilitate sufficient and qualitative housing to the urban poor of Aurangabad city?

6. METHODOLOGICAL APPROACH

A combination of both quantitative and qualitative methods of collecting data has to be used. This multi-methodological approach to collecting data will enable a holistic understanding of the topic.

METHODS OF DATA COLLECTION:

- PRIMARY- FIELD WORK:

1. Identification of case studies- selection of case studies through defined parameters
2. Make on- site observations and photograph the site
3. Conduct comparative analysis of the selected case studies on the based observations, photographs and through statistics.

- SECONDARY:

1. Referring to research articles
2. Literature reviews
3. Journals
4. Books

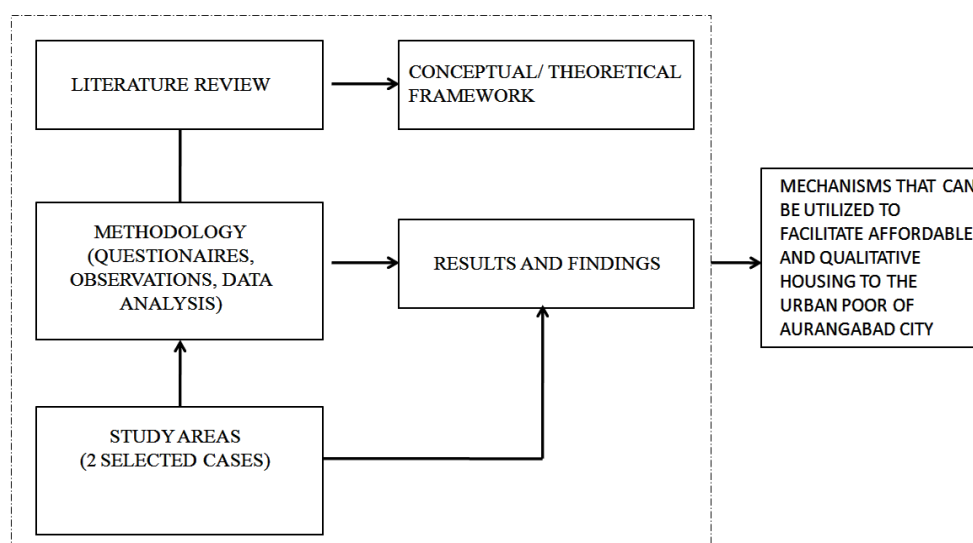


Figure 1: Methodological Approach

Source: Author

7. SELECTION OF CASE STUDIES

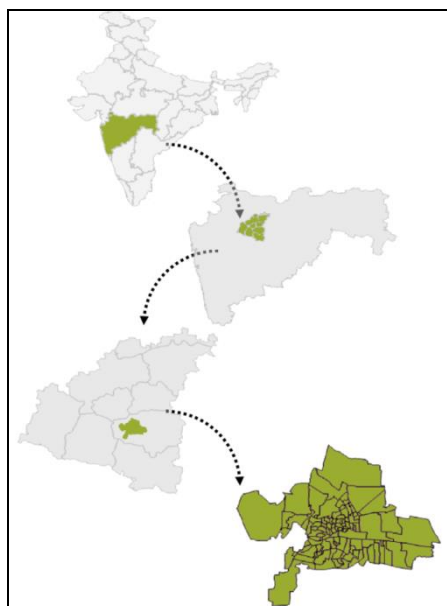


Figure 2: Location of Aurangabad City

Source: Author

Aurangabad, a city of Maharashtra, is an industrial township and education hub for Marathwada region. It is also the administrative headquarters of Aurangabad district and is also the largest city of the Marathwada region. The terrain of the city is hilly upland in the Deccan traps. In Maharashtra, Aurangabad is the fourth most populated urban area with a population of 1,175,116. The city is known as a major production centre of cotton textile and artistic silk fabrics. With tourist destinations like the Ajanta and Ellora caves lying on the outskirts of the city, which have been designated as UNESCO World Heritage Sites since 1983, the city is a major famous tourist hub. Under the countrys Smart City Mission, the Aurangabad Industrial City (AURIC) became the first ever Greenfield industrial smart city of India in 2019. Classification of Aurangabad area shows that the urban area was 66sq.km and non-urban Areas were 194sq.km in 2008. In 2016 urban land area increased to 79sq.km and non-urban area decreased to 181sq.km, this means that Built-up area increased from 25.38% in 2008 to 30.38% in 2016.

Demographic Structure		
Sr.No.	Year	Population
1	2	3
1	1981	284807
2	1991	573272
3	2001	880740
4	2011	1175116

Table 2: Demographic Structure

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SHARAD MAHAJAN

ANKITA AGRAWAL

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Source: Census, 2011

The growth rate of population for above Area for 1981-1991, 1991-2001, 2001- 2011 decade were 101.28, 53.63% and 33.98% respectively.

Aurangabad is developing rapidly due to availability of natural resources such as good agricultural lands, fast growing Industrialization, Trade and Commerce and convenient transportation and communication links. The city is well connected by means of road, railway and airway to other parts of the state. Due to the advantageous location and historic importance, the city's growth of the economic activity is accelerating. With increase in generation of economic activities, there is an urgent need to address housing for the urban poor to avoid haphazard development of slums in the city.

For this research work Public housing schemes of Aurangabad are selected as it is researcher's hometown. So for convenience and thorough research work, this city was selected.

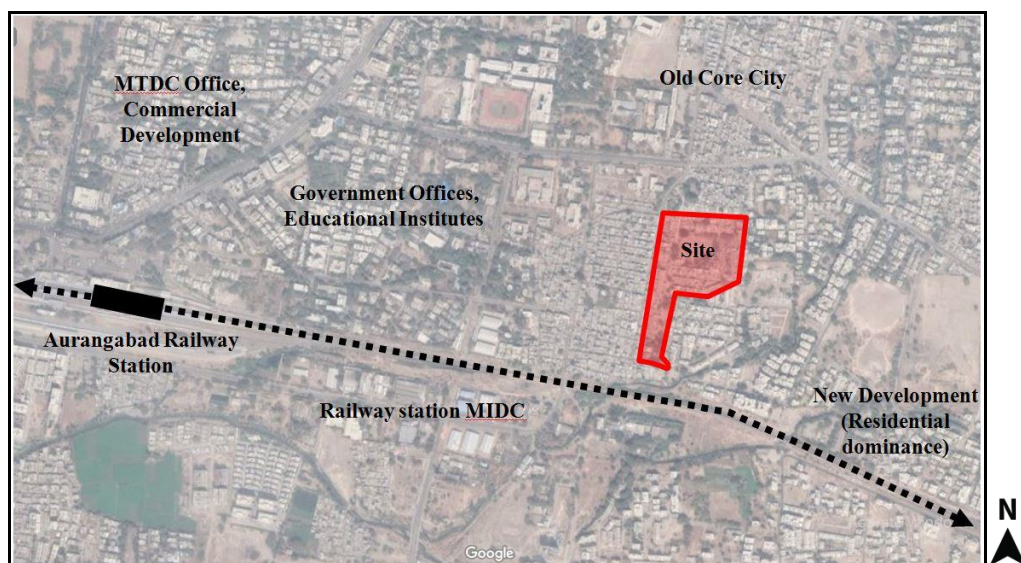
Four public mass housing projects that differ in typology, scale, site planning, location and construction are chosen for the study and analyzed qualitatively and quantitatively to comprehend the significance of these projects on the residents of the same.

7.1. CASE STUDY 1: EKNATHNAGAR, AURANGABAD

ABOUT SITE:

This MHADA housing development was established in 1981. The site is one km away from main railway station, five km CIDCO bus stand and three km apart from the Jalna road and is adjacent to Beed road which is located on southern side of city. This area is surrounded by the residential, institutional, industrial areas and it is located along the railway track and nallah. Majority of the Community residing belongs to Scheduled Caste. The state of the accommodation has become poor and some are in dilapidated state. The site needs to be redeveloped, but the residents are not in favour of it as they feel they might lose the land.

EXISTING SITE AND SURROUNDINGS:



Map 1: Eknathnagar Context

Source: Author



Figure 3: Eknathnagar Site Plan

Source: Author



Figure 4: Eknathnagar Site Photographs

Source: Author

SOCIO- ECONOMIC STATISTICS:

Type of Housing: EWS (Economically Weaker Section) + LIG (Low Income Groups)

Employment: Daily Wage Earners



Figure 5: Eknathnagar Site Photographs

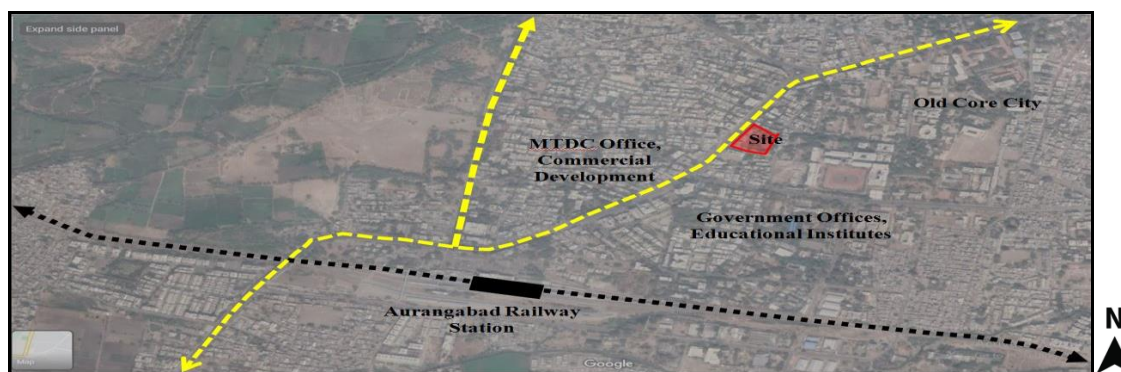
Source: Author

7.2. CASE STUDY 2: BANSILAL NAGAR, AURANGABAD

ABOUT SITE:

This MHADA housing development was established in 1990. It is a mixed use development where ground floor is for commercial shops and above is for residential use. It is situated in prime location. The condition of the houses has become poor and some are in dilapidated state. The site needs to be redeveloped, but the residents are not in favour of it as they feel they might lose the land.

EXISTING SITE AND SURROUNDINGS:



Map 2: Bansilalnagar Context

Source: Author

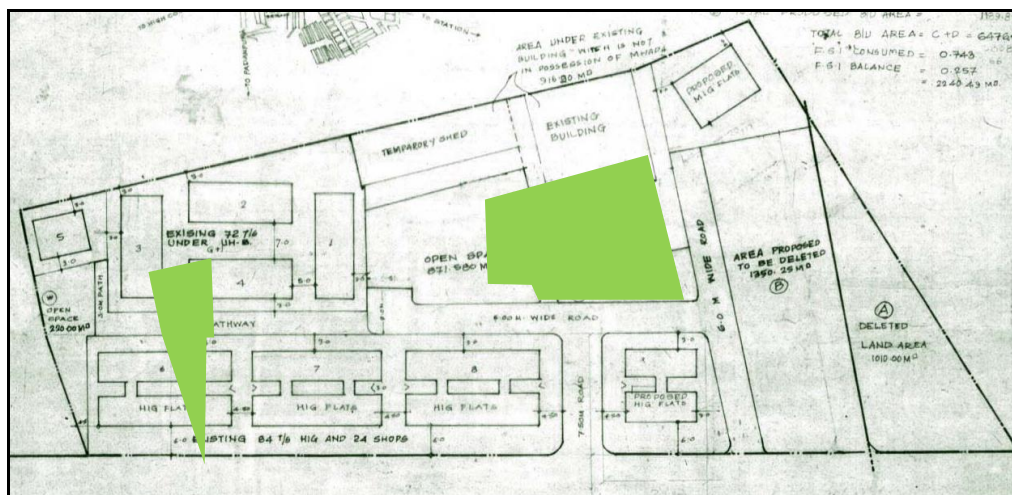


Figure 6: Bansilalnagar Site Plan

Source: Author



Figure 7: Bansilalnagar Site Photographs

Source: Author

SOCIO-ECONOMIC STATISTICS:

Type of Housing: EWS (Economically Weaker Section) + LIG (Low Income Groups)

Employment: 60% Service Industry, 40% Business/ Entrepreneur



Figure 8: Bansilalnagar Site Photographs

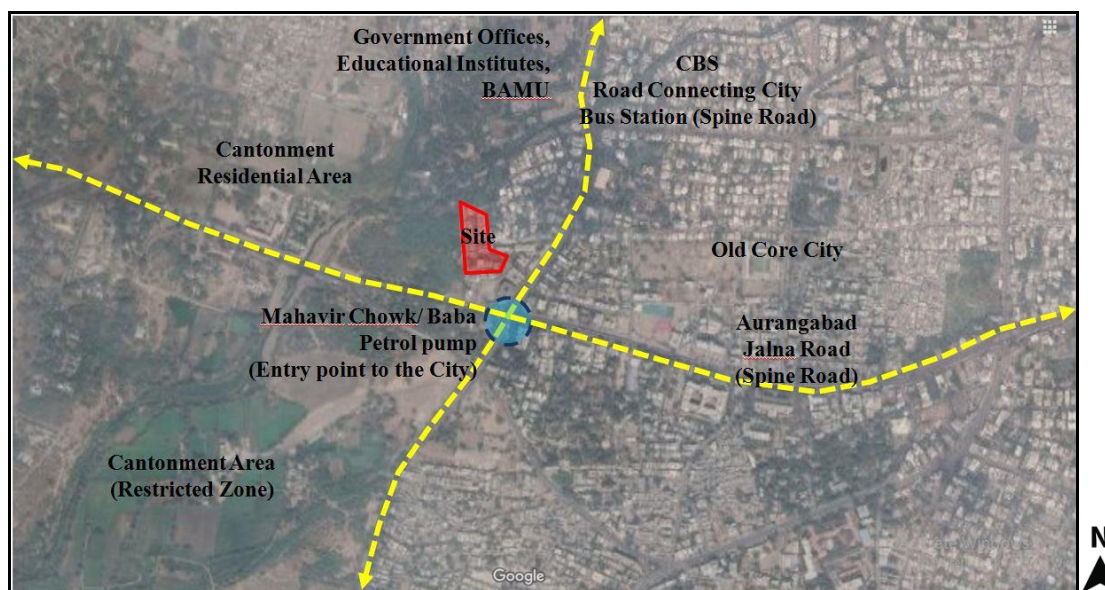
Source: Author

7.3. CASE STUDY 3: MHADA COLONY, AURANGABAD

ABOUT SITE:

This MHADA housing development was established in 2012. It is located adjacent to the entry point of the city for people entering Aurangabad from western Maharashtra. The site has strong transport connection advantage. This scheme is designed for residents from all socio-economic backgrounds. MHADA has its Regional office in this premise.

EXISTING SITE AND SURROUNDINGS:



Map 3: MHADA Colony Context

Source: Author

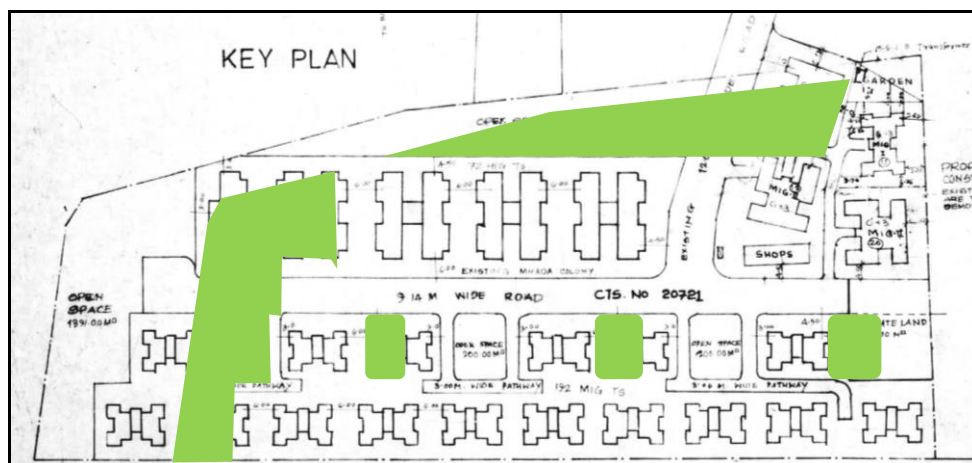


Figure 9: MHADA Colony Site Plan

Source: Author



Figure 10: MHADA Colony Site Photographs

Source: Author

SOCIO- ECONOMIC SURVEY:

Type of Housing: EWS (Economically Weaker Section) + LIG (Low Income Groups) + MIG (Middle Income Group) + HIG (High Income Group)

Employment: 70% Service Related Industry 30% Business/ Entrepreneur



Figure 11: MHADA Colony Site Photographs

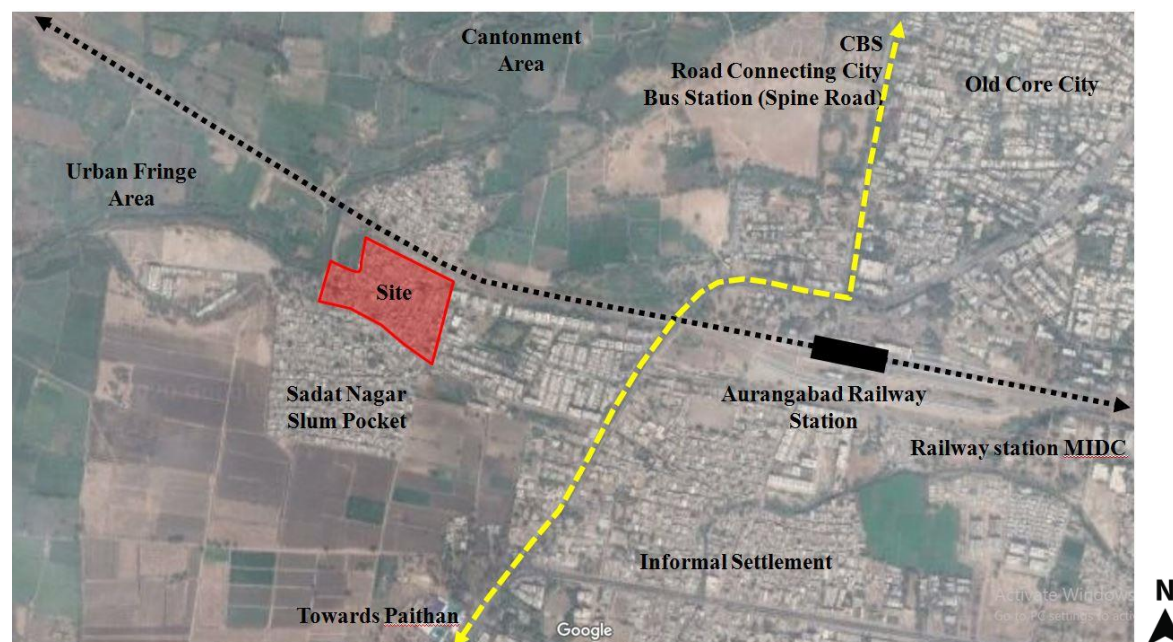
Source: Author

7.4. CASE STUDY 4: RAHULNAGAR, AURANGABAD

ABOUT SITE:

For more than 40 years, the slum is dwelling on the encroached land which belonged to private businessman Mr. Manalal Agarwal. As the years have passed currently it is a declared slum by Government of Maharashtra. Two lanes of Rahulnagar were selected as pilot project under Integrated Housing and Slum Development Program (IHSDP) as in-situ development of the slum. Total 53 houses were selected for the development. As per IHSDP subsidy each of the tenement had received title of land (preferably be in the name of female head) of household, Minimum unit of the household greater than 25sq.m, Provision of basic services to the urban poor together with water supply, sanitation, improved housing, and guarantee delivery of other existing services of the government for health, education, and social security, Up gradation of existing roads along with road widening. In spite of this, the residents were afraid of losing land. Out of the selected 53, 42 houses were successfully redeveloped and implementation took around 6 years to complete.

EXISTING SITE AND SURROUNDINGS:



Map 4: Rahulnagar Context

Source: Author



Figure 12: Rahulnagar Previous Plan

Source: Author

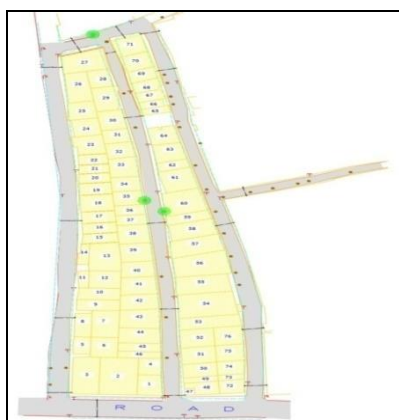


Figure 13: Rahulnagar Redeveloped Plan

Source: Author

SOCIO- ECONOMIC SURVEY:

Type of Housing: EWS (Economically Weaker Section)
Employment: Daily Wage earners, Service Industry

8. COMPARATIVE ANALYSIS


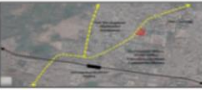
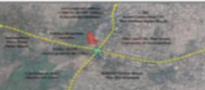



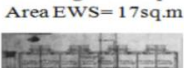
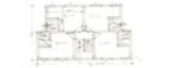

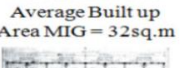

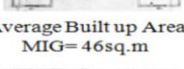

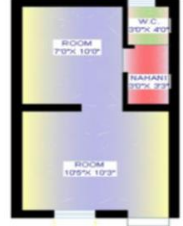
SR. NO	DESCRIPTION	CASE STUDY 1 EKNATHNAGAR	CASE STUDY 2 BANSILALNAGAR	CASE STUDY 3 MHADA COLONY	CASE STUDY 4 RAHULNAGAR
1.	CONTEXT				
2.	YEAR OF ESTABLISHMENT	1981	1990	2012	2009-2014
3.	RESIDENTS	EWS+LIG	EWS+LIG	EWS+LIG+MIG+HIG	EWS
4.	PLOT AREA	50479.98 sq.m	8717.25 sq.m	17726.40 sq.m	NA
5.	TPOLOGY	RESIDENTIAL+ COMMERCIAL (Community hall, Bank, Post, School, Shops)	RESIDENTIAL+ COMMERCIAL (Shops)	RESIDENTIAL+ COMMERCIAL (Shops)	RESIDENTIAL
6.	TENEMENTS	446 88ts/ha	202	328 185ts/ha	42/ 53 HOUSES DEVELOPED INSITU
7.	EMPLOYMENT	Daily Wage Earners	60% Service Industry, 40% Business/ Entrepreneur	70% Service Related Industry, 30% Business/ Entrepreneur	Daily Wage Earners
8.	OPEN SPACE	4837.92 sq.m 10% of Total Plot Area	1307.58 sq.m 6.6% of Total Plot Area	1772.0sq.m 10% of Total Plot Area	NA
9.	DWELLING UNIT	 Average Built up Area EWS= 24sq.m  Average Built up Area EWS= 17sq.m  Average Built up Area LIG= 25sq.m	 Average Built up Area EWS= 17sq.m  Average Built up Area MIG = 32sq.m  Average Built up Area HIG= 41sq.m	 Average Built up Area MIG= 46sq.m  Average Built up Area HIG= 66sq.m	 FRONT ELEVATION  GROUND FLOOR PLAN Average Built up Area EWS= 25sq.m
10.	OBSERVATIONS	<ul style="list-style-type: none"> The site has high land potential for redevelopment as it is surrounded by Educational institutes, Government Offices. The houses are in dilapidated condition, Tenements are not in favour of redevelopment 	<ul style="list-style-type: none"> The Site is located in the Prime area of the city It is a focal point for Commercial activity The houses are in dilapidated condition, Tenements are not in favour of redevelopment The site has good road transport connection with surroundings 	<ul style="list-style-type: none"> Less Development Scope- west and South are Cantonment Zone Areas (Restricted Area) Location is desirable as it is situated adjacent to the entry point of the city from west of Maharashtra and well connected by roads. Mixed type of community good transport connection with surroundings 	<ul style="list-style-type: none"> Although the residents were getting developed Housing through Insitu development, people were sceptical about the process and were afraid of losing the land. Though ownership was offered, people didnt want to leave the site. Perception of the people needs to be addressed. The site has good road transport connection with surroundings

Table 3: Comparative Analysis

Source: Author

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8.1. FINDINGS FROM CASE STUDIES

Lack of Maintenance and Accountability of the Residents

One of the most common issues in the selected sites for the study was the lack of maintenance of common facilities and services. The beneficiaries refuse to spend on the maintenance of common facilities provided in the colony. This occurs due to lack of stakeholder participation in the design, construction and financial contribution. Ignorance towards maintenance and lack of accountability of the property has led to the deterioration of common service passage of time, resulting in an unhealthy and unsafe living environment. To avoid this situation, recent housing policies have made amends that the maintenance of the complex will be partly aided by the government for first few years. But in return the beneficiaries are expecting the government to continue the aid for the maintenance work even after the stipulated time is over. The ownership documents of the beneficiary are retained with the government for more than 15 years to avoid the illegal sale of the property. This in return even more discourages the beneficiaries from maintaining or investing in the property.

Improper design and poor construction quality

Due to the shortage of the land and disputed land in the Aurangabad city, the mass housing projects are designed to cater a large number of households on small parcels of land. High rise or vertical housing is refrained, since the beneficiaries are hesitant to maintain the common areas. Due to this architects are restricted to design low rise or row houses with congested and dingy corridors. These common areas then result in negative spaces which in turn encourage illegal activities. Many of these units lack privacy and proper ventilation. The quality of construction is also poses a major concern. Poor quality leads to leaky roofs and weak walls, which constantly needs maintenance and attention.

Non flexible unit size

While designing, the size of the dwelling units is considered basic minimum in order to reduce the cost of construction and make them accessible and affordable to the urban poor mass. This is done irrespective of the household size. Overcrowded small units create bad living environments, posing threat to the well-being of the individuals. In informal settlements, it is observed that households expand their units when they have enough savings or when the number of people staying in a unit is increased. In the case of housing, the units have no provision for expansion, vertically or horizontally. This compels them to live in a small cramped up space. As per the PMAY scheme, the unit size is 25sq.m for a EWS family and 50sq.m for a LIG family. Another important factor to be analysed is whether income should be the factor on which the dwelling unit size can be decided.



The rapid growth of urban population in Aurangabad, poses serious challenges in terms of provision of basic minimum services. A critical look at the Urban Planning/ Design policies and mechanisms from the perspective of the poor is the need of the hour. Also assessing the needs and aspirations of the urban poor for bringing them into planning mechanisms is integral.

The user satisfaction depends not on the standard size of the house but on the floor space per person in the unit and availability of private open space. These design considerations can reduce the gap between the user needs and built environment in future.

Hence with appropriate location, better design of houses according to urban poor's expectations, and creating financial products tailor made to their economic condition, a mass market can be unlocked at the foundation of the economic pyramid for urban poor housing. With such targeted interventions, the Aurangabad city can create and sustain a more inclusive urban economic growth.

9. CONCLUSION

A comprehensive investigation of the spatial quality of built environment through user satisfaction evaluations was carried out. The post occupancy evaluation of four public housing projects for the urban poor in Aurangabad city was carried out by adopting qualitative and quantitative methods. However the performance of each of the four independent variables of location, scale, housing typology, open spaces, dwelling units and building construction /services differed among the four housing developments.

The study concludes that with the right housing location identification, better design of homes according to urban poor's expectations, and creating financial products tailor made to their earning pattern, a huge mass market can be unlocked from the economic pyramid of those who are at the bottom of it for the urban poor housing. With such targeted interventions, we can create and sustain a more inclusive urban economic growth.

Resettlement projects involve several socio economic complexities. Relocation of the people from their existing place of residence means to eradicate them from accomplished existing relationships. The economic condition of low income groups may often prompt them to use allocated dwellings as a source of income rather than a place of residence. As a part of the anticipated solution to the resettlement, it may be to construct the dwellings by integrating the local context and the utilization patterns with the use of vernacular material for construction.

For inclusive planning, further categorization of urban poor on the basis of basic survival needs, the security issue, and standards of living, such as core poor, intermediate poor and transitional poor, declining poor, coping poor, and improving poor.



The substantial scarcity of housing cannot be solely resolved by the government. Private developers were hesitant early, in entering this segment. But with innovations in the construction techniques and business models the private sector is should be more incorporated.

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