

PLANNING INTERVENTION FOR AFFORDABLE HOUSING FOR THE MID-INCOME SEGMENT IN NASHIK CITY

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Abstract— The overall aim of the dissertation intends to suggest possible planning interventions for affordable housing for a mid-income group of Nashik city due to its proximity to Mumbai and Pune, the availability of properties at affordable prices and high demand fuels its residential real estate sector. Owing to the development of its physical and social infrastructure the city is attracting a large number of homebuyers. Nashik has around 34 % of the population of SEC (Socio-Economic Classification) A and B in the city, which is higher than other major cities in India. This study aims to connect with other local and international case studies to discuss certain concepts that could be used to enhance the alternative solution and recommend suitable solutions for achieving sustainability targets and equitable growth processes. It would also suggest potential backdrop from Housing for All scheme and suggest policy changes and also increase investment in the scheme by a private partnership. The study will also offer extensive analytical research and thorough analysis of the current status and future growth prospects of Nashik City's housing sector, its backward and forward linkages, funding structure, and underlying risk nature.

Keywords— Affordable housing, Affordability, Housing shortage, Urban land, Public-private partnership, Demand and Supply of housing

1. INTRODUCTION

1.1 DEFINING AFFORDABLE HOUSING

N-HABITAT describes affordable housing as "housing that is appropriate in quality and location and does not cost so much that it prevents its residents from meeting any basic cost of living or restricts their enjoyment of fundamental human rights"(UNHABITAT, 2011). The figure below unpacks the concept of

financial affordability. Affordability is not just about the cost of owning a home-it has to compensate for the expense of service and maintenance. While India tries to improve its living standards on a wide scale, access to affordable housing for its people is becoming a big stumbling block. (Kalpana Gopalan, 2015)The MHUPA takes note of both income and size requirements in its 2011 report to describe the concept.

Multiple studies have also suggested other indicators of affordability within the Indian context. Housing 's position and function are multifaceted – housing choices affect access to services, jobs, household income, health, education, poverty rates, maternal and child mortality, workplace participation by women, and many other indicators of well-being (Kalpana Gopalan, 2015) as discussed in the next sections.

Table 1. Income and size requirements in 2011.



Fig. 1 Housing affordability

1.2 AFFORDABLE HOUSING DEMAND IN INDIA

| | Size | EMI or Rent |
|-----|---|--|
| EWS | Minimum of 300 sq.ft. super built-up area Minimum of 269 sq.ft. (25 sq.m) carpet area | Not exceeding 34-40% of gross monthly income buyer |
| LIG | Minimum of 500 sq.ft. super built-up area Maximum of 517 sq.ft. (25 sq.m) carpet area | |
| MIG | 600-1200 sq.ft. super built-up area. Maximum of 861 sqft (80sqm) carpet area | |

There are several demand drivers for affordable housing in India. First is the gradual urbanization coupled with a growing urban population, from 109 million in 1971 to 377 million in 2011 to 600 million by 2030. The effects of the growing concentration of people in urban spaces are felt in shortages of land and housing and congested transportation, in addition to stressing basic services such as water, electricity, and lung space. The Housing Ministry reported a housing shortage of 18.78 million in the 12th Plan period, with 99% in the economically weaker and lower-income groups (Ministry of Housing & Poverty Alleviation, GOI, September 2013, p. 2) This in turn, contributed to the emergence of the slums and slums; 65 million according to the 2011 census. (Ministry of Housing & Poverty Alleviation, GOI, September 2013, p. 2) The increasing wages have contributed to the expansion of the middle class alongside the rise of the urban population. This has increased housing demand which is affordable but which includes basic facilities. Sky-moving valuation of land and major real-estate players in urban areas of the city who forcefully made it possible to occupy

marginal land typified by degeneration and scarcity of housing stocks. The increasing wages have contributed to the expansion of the middle class alongside the rise of the urban population. This has increased housing demand which is affordable but which includes basic facilities. Sky-moving valuation of land and major real-estate players in urban areas of the city who forcefully made it possible to occupy marginal land typified by degeneration and scarcity of housing stocks

The real estate market is an important part of the Indian economy. It contributed 4.5 per cent of Crore to India's GDP at Rs.170 Crore and employed 7 per cent of the urban workforce in 2006-7. Housing is also the main part of the finance and building sector. The thrust on affordable housing will not only enhance the quality of life but will also substantially raise the country's GDP.

Table 2. Distribution of estimated urban housing shortage in India. (Million)

| Factors | As at end-2012 |
|--|----------------|
| Households living in non-serviceable katcha houses | 0.99 |
| Households living in obsolescent houses | 2.77 |
| Households living in congested houses | 14.99 |
| Households living in homeless condition | 0.53 |
| Total urban housing shortage | 18.78 |
| (EWS) | 10.55(56%) |
| (LIG) | 7.41(40%) |
| (MIG+HIG) | 0.82(4%) |

2. RESEARCH OBJECTIVE

- To study the current housing situation of the city to understand the need of affordable housing need in the city through stated preference survey.

- To understand and analyse the various urban housing regulation policies and guideline reform in affordable housing to overcome housing shortage in the city
- To recommend interventions in the process of affordable housing to increase the quality of the living space

3. METHODOLOGY

The research approach is teleological (where the process is important) and is adapted to hybrid methodology, from both quantitative analysis and qualitative analysis for high-income group study in affordable urban housing.

1. Problem identification.
2. Literature review.
3. Conceptualization of thesis.
4. Data collection.
5. Study area identification.
6. Data interpretation.
7. Proposal / recommendations.
8. Study outcome.

4. LITERATURE REVIEW

1. Kalpana Gopalan, Madalasa Venkataraman 2015, "Affordable housing: An academic perspective on Policy and practice in India"

This paper sets out the concepts of affordable housing in India and around the world; the problems with the varying concepts of affordable housing; the government agencies responsible for developing and enforcing affordable housing policies in the state; the potential challenges of affordable housing as well as a reflection on international experience in this area.

2. Ms. Harshleen Kaur Sethi, 2017 "Affordable Housing in India"

This research paper aims to analyse the effect of government measures on both sides, i.e. private developers and homebuyers, and tries to summarize their views on government policies to improve the segment.

3. Archana Dongre, Vinay Kumar, Ganta Srinivas, 2017 "A case study – affordable housing" This paper discusses low-cost housing initiatives for sustainable living, literature review; low-cost housing development using low-cost building materials for low-income people in India where a conceptual model is being suggested.

4. A. Ganga Warriar, Pavankumar Tadepalli and Sivakumar Palaniappan, 2019 "Low-Cost Housing in India: A Review"

This study provides an analysis of various housing initiatives taken in India, housing technologies, and assessment criteria used to pick a suitable technology. Additionally, a debate is addressed on the sustainability aspects of low-cost house construction.

5. (Kishor P.Rewatkar, 2016) , 2016, "Low-Cost Affordable Quality Housing-The Factors of Concern"

This paper explores how to achieve low-cost affordable quality housing goals by making it user sensitive, environmentally friendly, and sustainable, aimed at enhancing the quality of life of its consumers, saving energy for sustainability and reducing environmental danger.

5. STUDY AREA

5.1 STUDY AREA ASSESSMENT

The commercial area is present in the city's western portion. NH-848 is a major arterial road that connects Thane-Nashik-Patient-Gujarat via this study area. The present Gangapur Road in this area is a well-developed location in the Nashik town. Many upcoming residential projects are coming up in this area of commerce. This study area includes

many futures and current commercial ventures. The industrial area such as Satpur MIDC is present along NH 848 and Satpur MIDC main road along this study route. There is also a Sula Vineyard along Gangapur Savargoan Road. The Godavari River is present in this area of commerce.



Fig.2 Location of Study Area in the Nashik City

5.2 POPULATION & HOUSEHOLD DISTRIBUTION IN STUDY AREA

The entire study area 1 comes under Nashik Municipal Corporation, centered on the study area boundary. The following map shows the location of wards below study area 1 and the respective population density calculated by taking the population of ward and villages (MBP 2018) divided by ward or village area.



Fig.3 Wards Falling under Study Area

The following figure shows the population and number of commercial households and villages falling within the zone.

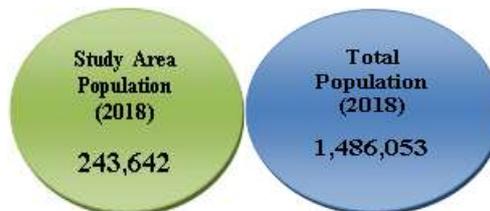


Fig. 4 Demographic Details for Study Area

5.3 REAL ESTATE OVERVIEW OF STUDY AREA

Land price trends & land zoning in study areas:

Considering the size of the study field, to arrive at indicative land values it was divided into different areas. The description of the region was made based on the real estate and the place characteristics of the zones.

Table 3 Zone wise land rates in Study Area

| Zone | Description | Land Rates INR per sq. ft. | | Land Rates in USD per sq. ft | |
|--------|-----------------------|----------------------------|-------|------------------------------|-----|
| | | Min | Max | Min. | Max |
| Zone 1 | Canal Link Road | 1,000 | 1,200 | 14 | 17 |
| Zone 2 | Ambad Trimurti Chowk | 2,000 | 4500 | 28 | 64 |
| Zone 3 | ITI Ambad Road | 2,500 | 3000 | 36 | 43 |
| Zone 4 | Ambad Satpur LinkRoad | 1500 | 2300 | 21 | 33 |



Fig.5 Study Area Zoning

5.4 COMMERCIAL, INDUSTRIAL & RESIDENTIAL SECTOR OVERVIEW IN THE STUDY AREA

Prominent sales staff development of this study area along Gangapur Road may be observed. The main commercial construction is Samrat Qubism and Uttam Tower, each with an area of approximately 45,000 square feet

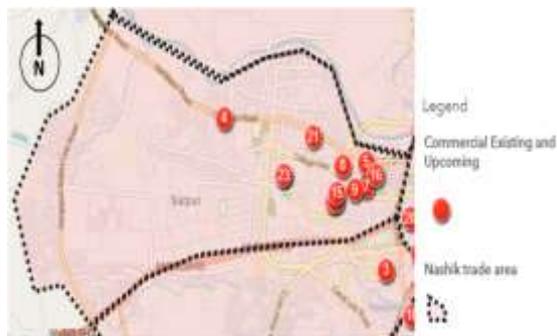


Fig. 6 Existing and upcoming commercial developments in the study area



Fig. 7 Industrial areas and key industries in the study area

Table 4 Satpur MIDC Industries:

| Engineering | Auto and Auto Ancillary | Pharma |
|------------------------------------|---------------------------------|-------------------------------------|
| Essay Engineering | Mahindra and Mahindra | Glenmark Pharmaceuticals Pvt. Ltd. |
| Indian Steel and Allied Industries | Sharda Motor Industries Limited | Chaitanya Pharmaceuticals Pvt. Ltd. |
| Reliance Engineering | Pikman Auto Ancillary Pvt. Ltd. | Max heal Pharmaceuticals Pvt. Ltd. |

Satpur MIDC is present in this study Area. This study area comprises largely small and medium-sized industries. The Satpur MIDC is present along the Main Road of NH 848 and Satpur MIDC. These are some of the major industries present in this MIDC: *Table 1 Satpur MIDC Industries*: There are fewer existing residential projects, in this study area Satpur MIDC. Some construction around Gangapur Road is already there. Some upcoming residential projects are in the vicinity of Gangapur Road, Canal Link Road, and Right Canal Road



Fig. 8 Stock & Supply of prominent residential developments in study Area

5.5 EXISTING INFRASTRUCTURE DEVELOPMENTS IN THE STUDY AREA

The micro-market has strong road-only access to other parts of town. In the specified study area, there is the upcoming metro.

Roads: The study area is well connected via major roads to other parts of the city including Gangapur Road, Right Canal Road, Satpur MIDC Main Road, and NH 848. The following map shows the current Commercial Infrastructure



Fig.9 Existing Infrastructure in study Area

5.6 FOCAL POINTS IN STUDY AREA

There is a very good social infrastructure in that study area. There are some schools and colleges around the Mahatma Nagar Road and College Road. Around Gangapur Road and College Road,

there are hospitals. Hospitals such as Nerlikar Hospital & Research Center and Six Sigma Medicare are present in the sector. The shopping mall Shraddha is situated on College Road. The following map shows the famous schools, universities, places of worship, malls, and hospitals present in the commercial area.



Fig. 10 Important locations of focal points

5.7 RESTAURANTS

There are numerous restaurants along Gangapur Route, NH 848. There are major food chains along College Road, such as Café Coffee Day, Burger King, KFC, US Pizza, McDonald's, and others.



Fig. 11 Restaurants in the study area

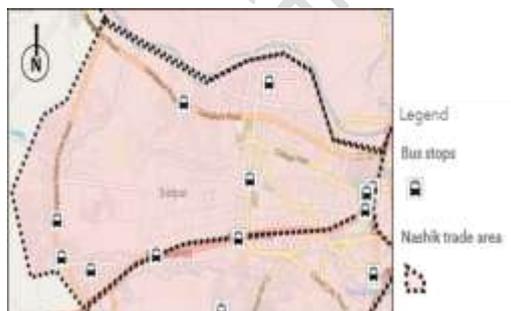


Fig. 12 Urban Amenities- Railway Stations & Bus Stops in Study Area

6. ANALYSIS OF DATA

The most challenging part of the process is data analysis in qualitative studies. Interviews are particularly hard to evaluate as there is always a

wide range of different thematic data. There is no single method of analysing such data. The analysis of data can vary depending on the nature of the research and the variety of responses. Even though there is no fixed method for analysing qualitative data, key considerations include reducing data, demonstrating data, and drawing findings.

The method of data processing used in this regard could be defined in a more or less similar way. Coding all data was performed manually, by hand. The first move on completing the interviews was to translate them. Then, the interview data were summarized in a table collection. The answers were then categorized, separated, and grouped into sections about their similarity and themes, and tables and figures further reflected this reduced data. The interactions of the various research components were then analysed for the study to be carried out. Although the researcher assumed obstacles in the analysis process to identify key areas of concern, the first round of interviews provided fairly clear evidence of reactions, and key areas of developers' issues were readily recognizable.

7. RESULTS AND FINDINGS FROM DATA COLLECTION

The study examined two different aspects, one of which was the reasons for reticence to engage in affordable housing, and the other concerning the existing framework and regulatory support for affordable housing provided by the government. The first round of interviews aimed at identifying specific issues of developers struggling with affordable housing in Nashik, helping to understand the reasons for this unwillingness to invest extensively in affordable housing. This paved the way for many positive discussions, without restricting the reactions.

The findings of the interviews are summarized in the following.

The data used for this study came from the statistics department and the questionnaire at Nashik city. In the first part, classify the data into three components by the distance between the position of the house and the center of the city. Every group has 71 to 90 square meter middle size house and 91 to 120 square meter large size house. The first group is the house right in the city center, this type of houses has attributes that are the

highest standard of the house with the highest selling price. The household would choose to select these houses because they have a high income.

30 complete responses from questionnaires were collected. We set up three observation groups according to the results of the questionnaire, the first is the high-income class, second is the sandwich class and the third is the low-income class. We assumed that the statistical unit is one householder, by adding some unanticipated factors, from the questionnaire. The basic situation regarding general profile, household income, and consumption as follows:

7.1 INFERENCES OF DATA COLLECTION

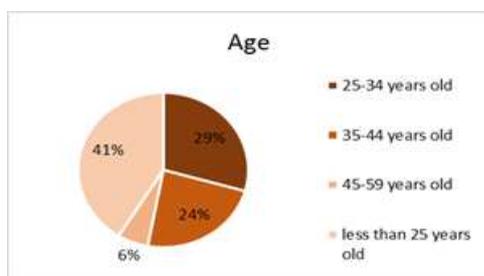


Figure 13 Age profile of respondents

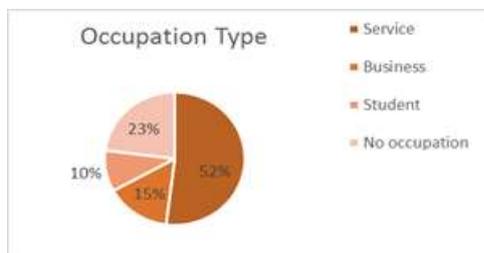


Figure 14 Occupation Type of respondents

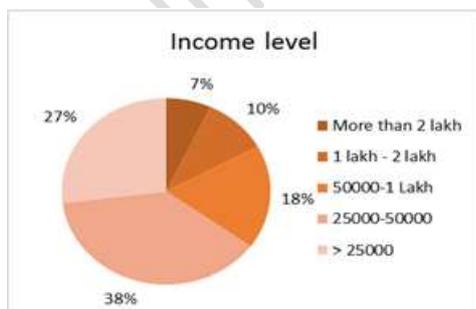


Figure 15 Income level of respondents

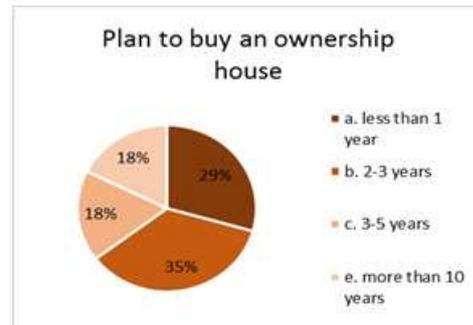


Figure 16 Respondents plan for buying own house

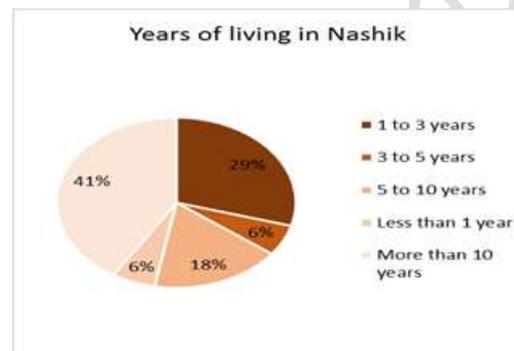


Figure 1 No. of years respondents living in Nashik

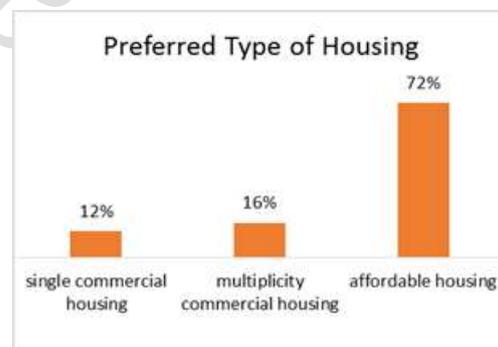


Figure 18 Preferred location of respondents for buying house

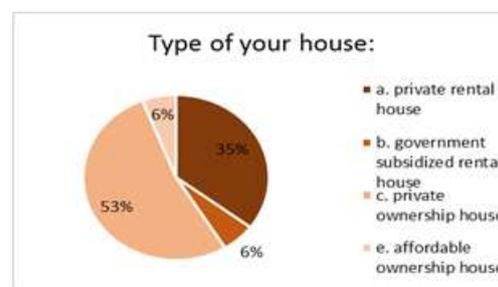


Figure 19 Preferred Type of housing by respondents



Figure 20 Preferred location of respondents for buying house

7.2 FINDINGS FROM THE DATA ANALYSIS

Table 5 Summary of objectives of Housing Policy

| Objectives of Housing Policy | Status in the study area |
|--|---|
| Promote rental housing | Attempts have been made but it's not achieved |
| Deregulate housing sector, encourage competition & PPP | The private sector is involved but it is not successfully implemented |
| Rationalize Development Control Regulations | Done in the state of Maharashtra but not in the study area |
| Streamline approval processes | Not done |
| Renewal & redevelopment | Moderate to some successful implementation |

Table 6 Summary of Implementation strategies

| Strategies | Implementation Status |
|--|--|
| Provide land in the proximity of cities, towns & rural areas | Availability of land but it is not implemented |
| Inclusionary zoning provisions for LIG in layouts | It is implemented |
| Higher FSI for LIG housing & efficient land use | It is implemented |

| | |
|---|---|
| DCR allocates land for public housing through PPP | It is not successful but implementation was done; detail unknown |
| Encourage Special Township Policy (higher FSI provided) | It is implemented |
| Land by Government for Affordable Housing | Cost of land is very high so it is not implemented |
| Rental Housing | It is on progress but not yet implemented. |
| Is the developer benefited | The developer is not benefitting but the rental market is getting benefits. |
| Challenges in redevelopment | It is implemented. |

- Issues and Challenges of Affordable Housing in Nashik:

Affordable housing can stimulate economic growth through its interdependence with other economic sectors. The coefficient of direct employment linkage of residential construction is the highest of all sectors since the essence of employment is largely informal. The current attempt by the government on affordable housing through policy initiatives, i.e. government incentive schemes, infrastructure tag allocation, interest subsidy scheme under PMAY has resulted in a sharp rise in new housing projects for low-income groups in the affordable segment. Through the point of view of consumers, while the availability of low-cost credit drives demand for affordable housing, policies such as the Real Estate Regulatory Authority (RERA) Act that give rise to fresh buyer interest in the real market. While the Government's and RBI 's joint efforts to improve affordable housing have produced positive results, several factors influence the pace of affordable housing growth in

India, and limited involvement by the private sector:

- Lack of sufficient low-cost land within city limits

- Long period for the regulatory clearance and approval
- Lack of development norms, planning, and design of projects
- Lack of large organized real estate players' participation due to low-profit margins
- High costs of building financial resources make the projects unfeasible
- Lack of proper maintenance mechanism;
- Challenges in choosing beneficiaries
- Restricted capacity or insufficient capacity of the implementing agencies

The creation of affordable housing in Nashik can be a distant dream unless the above challenges are addressed.

8. RECOMMENDATIONS

The recommendations for this study include:

- City master plans should have assigned affordable housing land parcels with detailed specifications
- Requirements to use unused plots of government property for affordable housing programs, such as railroad lands.
- By formulating guidelines, affordable housing projects will recognize the appropriate beneficiary.
- New construction technology will be implemented with construction job skills learning programs
- building materials should be available to the builders on incentives.
- Single window clearance to quickly track projects and minimize rising costs.

Improve the capacity of agencies such as urban local bodies to better implement the projects.

9. CONCLUSIONS

This study looks into the workings of private developers and the people residing in Nashik, in the context of affordable housing segment. The research aimed to examine how private developers and people residing deal with their land-related issues when operating within the state's regulatory framework. The intention was to identify best

practices that can help the affordable housing developers in Nashik address land-related concerns. Every one of the interviews conducted to gain insight into the different developers' issues and standard practices surrounding land issues. Researchers' results show clear evidence that while there is no "one" set of practices that can best address land-related issues of developers working with affordable housing in Nashik, some common practices can be developed to address these problems. The summary of the conclusions that can be drawn:

- Policies take a long time to implement and completely incorporate policy making and implementation differ greatly in different components.
- There was no clarity about the regulatory framework, policies related to affordable housing.
- Developers should be aware of contingency schemes and cooperative production schemes government venture schemes that seek to address the issue of land availability and land costs.
- Capitalization of higher FSI for affordable housing is a good way to handle the heavy costs. This might bring some relief.

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