

## Uncoordinated Paradigm of Housing in the Prime City of Northeast India

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The urbanisation process reveals a complicated picture of two distinct trends, one, the ever increasing growth of population and second the myriad questions involved in management of its affairs. It is particularly so in the developing countries as there is a great lag between the growth and planning process. In the city of Guwahati, Housing is a major area of concern due to its physiographic features and its growth pattern. Urban seismic risk in Guwahati is increasing with extensive growth and the encroachment of vulnerable built–environment into areas susceptible to seismic hazard. The city lies in the zone V and at the same time the city has been expanded with high growth rate of population as the gateway to the North –Eastern states. In this backdrop the paper makes an enquiry into the subject of urban housing with three perspectives: the nature of housing development in the city; the imbalance between site-situation and development; the apathy towards plan implementation. The paper is the outcome of the academic concern for highlighting the need of proper policy perspective in the urban sector in general and Guwahati in particular whose primate city character in the North East Region of India cannot be ruled out because of the demographic and socio-economic dimension of its growth.

**Keywords:** Guwahati, Urbanisation, Haphazard, Encroachment, Privatised, Policy, Shortage

### Introduction

Housing as a component of urban development strategy greatly determines the internal aspects of urban environment<sup>1</sup>. This inner aspect is the basis for “family activities and personal territory from which the family can gradually extend its involvement in urban affairs; particularly in the case of recent in-migrants to the city<sup>2</sup>. The physical house and entire household environment including location and condition are important determinants of social, educational, economic well-being of the individuals in an urbanized world. The Government of India with a perspective of housing development has put emphasis on it in the Five Year Plans. The main objective of the urban policy is to develop an urban rural continuum replacing the existing urban-rural dichotomy. The

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national policy gives first priority to urban housing in which both public and private sectors have been invited to contribute. Here public sector's responsibilities have been limited with the improvement of slums, and providing cheap housing facilities to weaker section of the urban society. The National Housing Policy announced in 1992 outlines the policies of housing with an integrated approach to overcome the problem of shelter, alleviation of poverty and generation of employment<sup>3</sup>. The National Commission on Urbanization, emphasized the promotion of housing through an integrated approach to deal with matters like housing for the poor, affordable shelter through access to developed land, building for materials and technology<sup>4</sup>. The United Nation also emphasized the need of a National Housing Policy for its member countries. Assam State Housing Policy 1993 considers the problem of housing in the light of rapid increase in urban population<sup>5</sup>.

Guwahati city has experienced considerable population growth in the past few decades although the decadal growth rate seems to have a declining trend over the years. The growth rate of the population for the period 1991-2001 was 3.32 percent per year and the decadal growth rate of population for this period was 38.24 percent. But, as per the recent census report the decadal growth has decreased to 27.61 percent in 2011. 10% of the population in 2011 falls in the age group of 0 to 6 as compared to the national average of 13.12% and the state average of 14.47%. Also, there is large floating population ranging to about 1.5-2 lakhs in a week which also leads to load on infrastructure (Consultation with JICA). Besides the main population residing in the city, 10% is floating population which comes for daytime activities as stated in the Guwahati Master Plan. Migration has been a continuous phenomenon for Guwahati city in the past few decades. Economic opportunities along with many social and political reasons govern migration pattern in the city. Better urban services as compared to other rural areas such as education and medical facilities also are factors affecting immigration. In the past few years, with a rapid increase in employment opportunities due to growth of industries and other secondary & tertiary sectors, migration has taken place from different cities and villages. As in most cases these people are from economically backward background and thus they tend to settle in illegal settlements and encroachments on hills or fragile lands. The recent increase in slum areas is an indication of increased migration in Guwahati.

### **Policy Perspectives**

As per the federal structure of Government in India, matters pertaining to housing have been assigned to the State Governments. The Ministry of Housing and Urban Poverty Alleviation (MoHUPA) is the apex authority to formulate national level policies. The National Urban Housing and Habitat Policy 2007, aims at providing equitable and affordable access to land and shelter to the residents of the city, with cooperative action between diverse stakeholders. MoHUPA is also the nodal Ministry for implementation of the component on Basic Services to Urban Poor (BSUP) under Jawaharlal Nehru National Urban Renewal Mission (JnNURM) and the Rajiv Awas Yojana (RAY) - a scheme that targets provision of low cost housing to the urban poor. The Assam State Housing Board, is the nodal agency which takes up different Housing schemes for low

and middle income groups, rental Housing Scheme for Govt. Employee, labor house blocks in Tea Gardens etc. with the fund available from the State plan and borrowing fund from other financial Institutions like Housing and Urban Development Corporation (HUDCO), Life Insurance Corporation of India (LICI) and Banks for both Urban and Rural areas of the States. Besides, separate entities like Assam Industrial Infrastructure Development Corporation, Central Government organizations also provide for housing in their jurisdiction area.

Guwahati Development Department (GDD) is the administrative department of Guwahati Municipal Corporation(GMC) and Guwahati Metropolitan Development Authority(GMDA) and also looks after the execution of various central schemes on housing including BSUP, RAY through the JNNURM cell of the Guwahati Municipal Corporation<sup>6</sup>. Assam State Housing Board also provides for housing individually and in partnership. The GMDA is responsible for development of housing in areas under its jurisdiction. Besides this, the private sector also has its share in the overall housing sector. The conflicting situation of involvement of multiple agencies in Housing development issues and nonconformity to norms in the implementation process are responsible for present haphazard growth process in the city<sup>7</sup>.

Several crucial factors are the major concern of Housing policy in the city: Housing Guidelines for construction of buildings on slope, structural stability of buildings in hills and for the entire GMA (Guwahati Metropolitan Area), soil erosion and sedimentation control for construction in non hill GMA areas, precautions and technical details for use of Septic tanks and Soak-pits Building Bye laws for GMA need to integrate these points. Intensive micro-zonation studies should be conducted to identify vulnerable areas as per the sub soil conditions of GMA. However, there is no concrete provision of Building Bylaws yet. A new set of revised norms were introduced in 2006 but the Management itself acknowledged its inefficiency and lack of capability to address the problems of such issues related to Housing in Guwahati. As stated by the Political administrative machinery a proficient and updated model of Building Bylaws is ought to be introduced shortly. It has also been claimed that this new model will also act as the Housing Policy for Guwahati city and suffice all its requirements<sup>8</sup>.

The city is situated on an undulating plain with varying altitudes of 49.5 m to 55.5 m above Mean Sea Level (MSL). The Southern and Eastern sides of the city are surrounded by hillocks. Apart from the hilly tracts, the city is also covered by swamps, marshes and several wet lands. Urban growth in the city of Guwahati has been rapid, unplanned and organic. Rapid population growth, high migration rates and change in land use pattern of the city due to uncontrolled development activities is said to have harmed a lot to the ecology and environment of the city. Illegal construction on hills has been one of the major causes for landslides. Uncontrolled urban development, particularly construction activities in and around the city is a major threat to this city which lies on zone V, high seismic activity zone. Urban seismic risk in Guwahati is increasing with population growth leading to encroachment of vulnerable areas<sup>9</sup>.The study found that most of the residential buildings in Guwahati are constructed on the basis of socio-economic consideration rather than engineering approach.. There has been phenomenal increase in construction of multi-storied apartment and commercial buildings. These

buildings are engineered in a sense that the buildings are designed by engineers as per IS: 1893, which has been made mandatory by GMDA about 15 years ago, but about 20% of these buildings are found deficient while quantitative analysis was done as per newly amended norm.

According to the investigation conducted by Renu Desai and Darshini Mahadevia and a similar study carried out by the present author (Genesis of a city, 2013) it could be understood that the informal occupation of public and private lands in Guwahati comprises of five housing submarkets defined in terms of landownership. The first comprises of the vast tracts of land owned by the Indian Railways in Guwahati, which have been informally occupied. According to a 2009 slum survey, approximately 21 per cent of slums are on Railway lands (GMC 2009). The second and third housing submarkets are formed through the informal occupation of two kinds of State Government lands: State Government Revenue lands and State Government Reserve Forest (RF) lands. The former are found in the plains, on low-lying marshy lands and in the hills, while the latter, which are under the State's Forest Department, are mostly found in the hills. Although the 2009 slum survey does not reveal the percentage of slums in each of these two categories, it reveals that together they account for approximately 47 per cent of the city's slums (GMC 2009). This survey also reveals that approximately 27 per cent of the city's slums are on State Government lands in the plains. This includes slums on marshy lands as well. Most of these slums are likely to be on State Government Revenue lands. Amongst the 20 percent of slums that are on State Government lands in the hills, some are on Revenue lands and some on Reserve Forest lands, however, this breakup is not available in this survey. Another survey reveals that the GMC area comprises of 16 hills with a total population of over 65,000 households, of which 71 per cent live on Revenue lands and 17.7 per cent on Reserve Forest lands Thus, while the majority of slums are on State Government Revenue lands, there are many slums on State Government RF lands as well. The fourth housing submarket comprises of the informal occupation of private lands marked for acquisition by the State Government under the Urban Land Ceiling Act. There is no data available on the percentage of slums on such lands in Guwahati. Finally, the fifth housing submarket comprises of informally-occupied private lands. According to the 2009 slum survey, approximately 17 per cent of slums are on private lands (including *patta* lands and lands belonging to private trusts such as the Kamakhya Temple trust). 8 per cent of slums are on lands with a mix of private landownership and government landownership<sup>10</sup>.

The city of Guwahati with accelerated annual population growth rate in the corporation area deserves proper attention in the sphere of management of housing. Housing management assumes a serious role in the city particularly because of two significant factors. One, there is very rapid increase of the amount of land used in residential purposes. In 1990, according to Assam Remote Sensing Department's survey residential land use was more than 70 percent of the developed land. The current building map of Guwahati has been completed on GIS with 85000 building footprints covering the entire Guwahati Metropolitan Area in 2008. The situation demands application of planning in the housing development process to ensure a sound settlement environment. In the light of phenomenal expansion of area and population, proper management of housing can fulfill the following aims:

- a) Optimum use of land through land management system for sustainable urban development,
- b) Social development through the provision of housing for low income groups and the poor section of the population of the city to prevent the growth of slum.
- c) Urban planning through betterment of shelter environment to prevent squatter settlements and to ensure proper building regulation.

Second, in the city, housing has assumed the role of a vital element of the urban economy. The real estate agent, and institution, corporate agencies for housing finance, professional agencies and suppliers and various associated agencies have entered the scene. Besides being an element of urban economy, housing policy and management can largely decide the quality of investment in this sector. An effective housing policy is a necessary component of the city's development management process. It can invoke proper response towards certain emerging urban economic problem like land ceiling and rent control. However, in the city to a large extent, housing finance and associated matters still remain as individual issues. The Housing Agencies like Assam State Housing Board, and Housefed, Co-operative Societies, Employers under State and Central Government Authorities, Banks, professional agencies or promoters provide 15 percent of the total housing whereas 85 percent is individual housing<sup>11</sup>.

Group Housing System for urban poor is yet to take a massive scale. The question of housing for the poor carries with it serious implication of accommodation for certain sections of people whose credentials are in controversy. During our discussion with Govt. officers involved in welfare activities in the city, it was invariably expressed that the large majority of urban poor are migrants from neighbouring Bangladesh who came to the city from various routes to serve as unskilled labour. However the growth of slum can be largely prevented by such conscious effort taken towards these sectors, Central Business Area, the Railway Station, Fatasil Ambari are some of the places of concentration of homeless people. One such small pocket has grown just below the District Commissioner's bungalow on the footpath near the Panbazar road. In the surrounding hilly areas and river banks many people as such has taken a serious turn. A systematic research is needed to find out suitable strategy of housing for homeless people and low income group. A sample survey conducted in the GMA area showed that out of total number of 3029 sampled households, almost 65% are residing in their own houses, whereas 20.57% are residing in rented houses, 12.74% of the total households gets accommodation provided by the employer. Jointly owned house are almost negligible.

It is important to note that among the propertied section in the old areas such as Uzan Bazar, Bharalumukh, Rehabari joint family system is evident. The traditional households in these areas are constituted by old parents and two or more brothers and their families. The property in the form of land and house is legally owned by the father and in his absence, the mother. In the central part of the city, business community exhibits the extended form of family pattern and jointly owned houses. For requirement of houses for well to do families, vertical development of land can ensure optimum use of land in already occupied areas. The current scenario of housing represents the all India phenomenon of converting traditional housing with the emerging trend of vertical land use.

As per the sample survey, in the distribution of houses purchased from various agencies, there is rapid growth of private builders particularly since 1990s that has led

68% of the total buyers of this category to purchase houses from them. Only 1.82% is purchased from government agencies. 30.91% of households are purchased from employers. However, growth of agencies for construction of houses is a recent phenomenon.

The Housing Finance Agencies operating in the city are gradually increasing their number of clients in the core areas and also in the outskirts. The survey showed that among the sampled households 12.71% of the houses are constructed or purchased by taking loan from financial institutions, employer or other sources. 87.24% of the sampled households are self financed.

As most of the houses are self financed, the role of individual savings in the housing development in the city can be understood. The agencies involved in financing services are Corporate Bodies – like Housing and Urban Development Corporation (HUDCO) Housing Development Finance Corporation (HDFC) State Govt. organizations like Assam State Housing Finance Co-operative Society Ltd. (HOUSFED), Assam State Housing Board (ASHB), Insurance Company (LIC), peerless Abasan Finance Company (PAFC), Commercial Banks; State Bank of India, Home Finance Ltd. and private institutions. HUDCO is a central agency which provides loans to most housing developing agencies in the city as well as in the state. ASHB and HOUSEFED not only provide financial help but are also providing group housing in the city. The other agencies are actively working as agents of housing finance. HOUSEFED provided 64 numbers of flats for middle income group (MIG) in Beltola in 1994. It also undertook the project for higher purchase in Sijubari. ASHB undertook housing projects for during the period 1977 -80 in Athgaon and Fatasil Ambari areas of the city. The Colonies were taken over by the G.M.C. to provide sweeper colonies. In collaboration with Peerless Abasan Finance Ltd. ASHB undertook development projects on a large scale covering different income groups in Kalita Kuchi area of the city. However, these were sold out to various organisation of the Central and State Government. ASHB since 1974 has completed housing projects at various areas such as Hengrabari, Chandmari, Hatigaon, Kharghuli, Nabagraha Hills for lower income group (LIG) and middle income groups. These Housing Colonies cater to only about 2000 people and therefore its contribution to the city's housing sector is negligible.

It is important to note that the traditional houses are gradually declining in the city and there is a trend of increased group housing in the city. A cardinal point observed in the development of housing sector in the city is the growing number of pucca or RCC houses in the Corporation area. However construction of multistoried building is mostly a post 1990 phenomenon. In this regard proper building control measures are essentially as the city is situated in high risk seismic zone. The low rise horizontal development in the core areas have been rapidly replaced by vertical development projects. In the next ten years the scenario of housing in the type of structure will be drastically changed because of the replacement of kutchha, semi-pucca, Assam type houses by permanent constructions. The city needs a housing policy and strategy to look after the issues like:

- (a) improvement of slum and prevention of its growth;
- (b) housing for the lower and middle income groups in the light of accelerate rise of land price and non-availability of land due to physical constraints.

- (c) encouragement and support to housing finance institutions including HUDCO to channelize the private resources for suitable housing projects.
- (d) proper regulation and control and building development in accordance with urban planning.
- (e) finding out suitable programmes for development of housing environment through area development plans with promotional measures for urban infrastructure.
- (f) inter-linking housing sector with the development process of the urban economy through provision for multiple associated matter like income generating housing schemes could be materialized with loan assistance from HUDCO etc.

The trend of the rising residential land use in the city indicate requirement of the new housing strategies within and outside the city. An important trend observed since 1984-85 is that though in the metropolitan area there is scope for residential development, people tended to avoid buying land in those areas. During 1960s and 1970s the trend was to move for outer areas. The law and order scenario is greatly responsible for such a reverse trend. The new residential development therefore is leading higher density with mixed land use. However, in the GMC area also there is every possibility of residential development in the immediate future and these areas are the north of NH bypass. – Barsajai, Natbama, Saukuchi, Jatikuchi, and Kahilipara area under wards 34, 11, 15. The trend of developing housing complexes in new areas by the public or private authorities would greatly influence the housing development strategy in the city in immediate future.

According to the CMP-2025 (Comprehensive Master Plan), in 2001, Guwahati Metropolitan Area contained 183,491 housing units out of which 178,838 units are exclusively residential and 4,753 are put to residence-cum-other uses. Out of the total housing, 48.4% households live in owned residences, 46.4% in rented and 5.2% in other accommodations. Out of the total 178,838 residences in 2001, 98,889 (55.3%) are of good condition; 68,383 (38.3%) of livable condition and 11,466 (6.4%) in dilapidated condition. 57% of the population lives in one- or two-roomed accommodation; 29.6% in three- or four-roomed accommodation and 12.4% in 5-roomed and above.

### **Housing Shortage**

In 1991 the housing requirements for the urban population in the urban areas of the state was estimated to be 8.10 lakh units. Housing shortage in Guwahati Metropolitan Area in 2001 was 12,817. Census data on the number of households, number of residential houses is as follows:

A. Total no of households	1,84,454
B. Total number of residential houses and houses used for residence-cum-other purposes	1,83,491
C. Backlog of housing required (A-B)	963
D. Dilapidated houses (Residence and Residence-cum-other uses)	11,854
E Total Housing Shortage in 2001 (C+D)	12,817
	(6.95% of the households)

Based on the above, in 2005 the housing shortage works out to 19,802. From the sample survey conducted in 2013-14 for this study it can be affirmed that the percentage of people living in rented accommodation is high.

**Household Size**

As per 2001 Census, the average household size in GMA is 4.45. This has decreased from 4.72 in 1991.

Table : 5 Growth of Population and households in GMA

Jurisdiction	2001			1991		
	Population	No of Household	Persons per household	Population	No of Household	Persons per household
GMC area	8,09,895	184,454	4.39	584,342	125,906	4.64
GMC excluding GMCA	80,878	15,804	5.12	64,307	11,553	5.57
Total GMA	890,773	200,258	4.45	648,649	137,459	4.72

Source: Census of India, 2001

The main reasons for smaller household size is single person resulting in low sex ratio and smaller family size. For 2025, a household size of 4.4 has been adopted to workout the housing requirement.

**Housing Need 2025**

The projected housing requirement in GMDA area in 2025 is as under:

- Projected additional population for 2025 1,283,129
  - Additional households between 2005 and 2025 @ 4.4 persons per household 259,163
  - Housing shortage in 2005 19,802
  - Need for additional dwellings between 2006 & 2025 278,965
- (This is excluding the slum areas.)

It is seen from that the housing deficiency in the GMC area has significantly increased in the last decade from 0.7% to 3.1% of the total number of households; and considering dilapidated houses it would work out to 6.95%. It may also be seen that GMDA needs to provide for about 2.8 lakh new housing units to be distributed in the existing and new developments in the next 20 years.

The additional housing units shall be provided in the following manner:

- New Towns : 90,909 dwelling Units
- New Residential Developments : 131,721 dwelling units
- Infill in existing residential areas : 56,335 dwelling units

**Housing requirement at 5 year intervals:**

The housing requirement phase-wise is calculated for the periods 2006-10, 2011-15, 2016-20, 2021-25.



Table : 6 Housing Requirement at 5-year interval period (2006-2025)

Year	Additional Population	Additional Houses	Total Requirement of Houses
2006-2010	211,129	47984	*57885
2011-2015	254,257	57786	*67687
2016-2020	306,193	69589	69589
2021-2025	368,739	83804	83804
	1,140,318	259163	278965

\* Including existing deficit

Source: Masterplan for Guwahati Metropolitan Area-2025

### Houses in Different Categories

58% of the households in GMC area live in one and two room houses (32% in one room and 26% in two room). 41% of the households live in three room houses and above (18% in three room, 11% in four rooms & 6% each in five and six room houses). On the basis of the emerging trend in the proportion of population occupying 1-2 rooms, 3-4 rooms and 5-plus rooms by comparing the 1991 and 2001 Census data, a distribution in the above categories for 2025 have been projected as under:

Distribution of Dwelling Units by number of rooms in GMCA

One Room	32%
Two Room	26%
Three Room	18%
Four Room	11%
Five Room	6%
Six Room & above	6%
No exclusive room	1%

### Conclusion

Housing has four distinct components for its development i.e., Land use management, infrastructure provision, building and construction guidelines and post occupancy management. These activities are distributed amongst the Government, private and cooperatives making the Government a facilitator for housing development. Housing policy in the context of Guwahati city has failed to cater to the problem of Housing shortage, growth of slums and continuity of growth in vulnerable areas, climate issues related to housing, manmade situations of floods and land slide, development of fragile areas with special purposes and many such issues. The Master Plan has not provided for any implementation guidelines through any special byelaws to deal with sensitive land development issues. The calculations of Housing need made by the Master plan 2025 has not catered to the intricate issues discussed in this paper.

The policy for urban infrastructure for the city of Guwahati has to be addressed with care. The role of Guwahati in overall economy of the state of Assam to which it

belongs demand a crucial initiative of government machinery and meaningful participation of the people. The existing situation is a picture of a striking lag between what the city provides to the state economy and how it manages its urban quality of life. Privatization in the form of individuals and builders/developers should be encouraged to participate in the house building activity. The Development Authority could provide land with offsite physical and social infrastructure for the private entrepreneurs to invest in house building and onsite infrastructure development. Developed individual residential plots could be provided to families where more than one dwelling unit could be constructed. The authority has made frequent announcements on this issue of Housing. In the year 2014 new controlling mechanism is to be introduced. There has to be a good balance between Development management and Development control.

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