8.1. Introduction:
Kolkata’s contemporary housing problem has originated from two sources; the colonial legacy of haphazard urban development and selection of site of the city. Its development is a classic example of locational economic advantage outweighing site difficulties. Probably nowhere in India, physiographic, topographic and climatic conditions are so much adverse at variance with the economic opportunity. The city lies in the Ganges delta, 130 km upstream from Bay of Bengal, surrounded by bogs, marshes, salt lakes with the water table frequently at the surface. From Hooghly’s, levee the land slopes away from the river, drained by maze of stream, channels and creeks. These physiographic characteristics coupled with the subtropical monsoon climatic regime of the delta, with its humid, scorching summer, provide one of the least attractive settings for urban settlement in the world.

8.2. Housing Problem of the City at Present:
The city at present is suffering from inadequate housing of LIG and EWS. On the other hand, due to easy availability of house building loan from commercial banks, growth of IT sector and Government’s policy of tax exemption the city has experienced a real estate boom for MIG and HIG. The sharp contrast in housing supply and demand in different income groups is not only evident in quantity but also in quality. These lopsided growths have cropped up due to several reasons. On the other hand, this expanding gap is also creating environmental, social, economic and physical problems as are discussed below.

1. **Absence of Monitoring:**
   - Allotment of flats are still based on old pay structure in absence of regular monitoring. As a result, the income of the householder does not match with the corresponding income category. Another discrepancy is that the standard of living or the present income level does not match the present housing category.
• Kolkata has also failed to monitor the transfer of LIG and EWS sites and houses. Many EWS and LIG householders re-sold their flats or plots of lands to the higher income households making profit in the transaction. Walk-Up apartments built by the WBHB and KIT to rehouse slum dwellers and redevelopment projects were also resold in the similar process.

• Many of the ownership MIG and LIG apartments are rented on a contract of 11 months. Owners of these apartments are staying at their old houses or quarters or Government rental flats. As a result, they are enjoying ownership at both the places. At the same time they are earning from their real estate property. Moreover, Government ownership flats do not prohibit resaling after a certain period. So, lower income groups hand it over to their immediate higher income groups in exchange of a handsome price. That is why, the MIG households are keen on investing in real estate.

• One of the reasons behind lowest density of population in the HIG houses is possession of a number of accommodations within the city due to absence of strict law and supervision.

2. Problem of RHE Apartments:

• Other than shortage, Government quarters have another problem with the inhabitants. That is, they are reluctant to vacate their flats after transfer of service to other towns or even retirement. The problem has become so acute that they have shown agitation or organised hunger stike.

• Another problem with the rental flats is that people are unwilling to vacate those flats even after achieving higher socio economic status or acquiring ownership flats.

3. Lack of Maintenance: Structural condition and maintenance of building are very poor in Government rental flats in LIG and EWS categories due to lack of maintenance. Most of the buildings are in dilapidated condition with only patch work being undertaken for so long. There are flats which have not undergone any repair for last 20 years. The rental flats particularly in the north Kolkata are subjected to complex subletting, subdivision and many legal complication. Therefore, it is difficult to evict long time tenants. Tenants are not willing to purchase the Government flats with poor structure. On the other hand, public
agencies are unable to repair the entire structure due to fund crunch. According to the KIT Valuation Department, annual income of KIT from the 23 Rental Housing complexes is Rs. 35 lakhs, while expenditure for annual maintenance of these housing complexes are about Rs.3.5 crore. Therefore, the disposal of rental flats even at a nominal rate does not have effective demand among the tenants. Similar feedbacks are received from the Housing Directorate under Government of West Bengal. Annual income of Housing Directorate from the rental payment of the housing is Rs. 3 crore and expenditure on annual maintenance is Rs. 15 crore.

4. Problems of Old Dilapidated Buildings: Old dilapidated buildings in north and central Kolkata are dangerous. According to the KMC estimates there are 1245 dilapidated buildings in the city. Maximum number of dilapidated buildings in dangerous situation are observed in Borough number IV and V. Due to legal complication the buildings can not be demolished. On the other hand, demolition of a structure would have serious repercussion on the neighbouring buildings which share common wall. The social structure is also conservative and not conducive to change. In several cases KMC had to drop the plan of pull down the buildings because their tenants have moved to the court, challenging the civic body’s move.

5. Problem of Bustees: Bustees exhibit some of the worst living condition and spontaneous indigenous solution to problem of inadequate supply of housing in the city. They are collection of huts, built of non permanent materials, usually with nominal urban services. According to the KMC survey report 37 percent of the slum dwellers stay in the rooms of having area of just 100 sq. ft., 52 percent slum dwellers reside in rooms having an area of 200 sq. ft. whereas, the Zoo Authority of India has alloted minimum 300 sq. ft. of area for the animals in our country. Tenure characteristics of Bustees are distinctive with a three tier system. The lands are owned by landlords who rent it to the Thika tenant under Calcutta Thika Tenancy (Acquisition and Regulation) Act, 1981. These Thika tenants build the hut and rent room by room to the individual or families at a price which can be afforded by the urban poor. Apart from declared Bustees there are many other slums having same physical character like Bustees. Bustees not only deteriorate physical and social environments, but also stand in the haphazard location in unplanned manner in relation to rational development of the city. The Slum Improvement Programme
taken up several times in the city by public authorities have provided hospital, park, play spaces, community centre, adequate supply of clean and safe drinking water, latrines, paved lanes, street lighting and hygiene campaign and management. But the basic structure of housing and space consumption has not changed. Sluggish supplies in overall housing system detrimentally affected the Slum Improvement Programme. Rents were inflated, poors faced intense housing competition for higher income groups.

6. **Refugee Settlements**: The refugee population was forced to be settled in an unplanned manner in different parts during 1947 to 1952 in particular and even upto 1971 in certain areas. Such settlements grew up by covering vacant residential area and also by converting agricultural lands. At present 166 such colonies, accommodating about 7 lakh population, are existing in the city.

7. **Problem of Houseless Population**: Kolkata is suffering from encroachment of houseless population who are coming from rural areas in search of employment and unable to acquire a municipal address. They are compelled to dwell on the streets, railway platforms, open verandas, under bridge, abandoned large pipes, courtyard of religious places and even on hand carts, creating social and environmental hazards. These pavement dwellers have failed to draw any attention of the decision makers. In 1991, about 60000 people were residing on the streets of the city out of which 55005 were located within 100 wards. The share of the CBD was about 50 percent of the total. Other than pavement dwellers, hawkers also constitute the houseless population of the city who use to occupy roads, market places in the process of their hawking and convert the same area for night staying in turn.

8. **Problem of Rent Control Act**: To control the runaway increase in rents and to ensure protection for the tenants, rent control laws were enacted. They pegged rents at levels prevailing in 1940 or thereafter and provided for fixing of a standard rent by the court which led to the neglect of buildings by the landlords. As a result, most of the buildings which are occupied by tenants are in a dilapidated state. In view of the unremunerative rent, the owners are unwilling or unable to carry out repairs and the tenants on their part do not spend money on repairs considering it to be the responsibility of the owners. On the other hand, Rent Control Act has also led to
illegal transaction and subletting when tenants and landlords gain but housing stock suffers.

9. **Lack of Co-ordination**: Kolkata is a jungle of special authorities, each with inadequate finance, indifferent management, competing and often conflicting powers, and often very low levels of technical efficiency among their inflated staffs. Working here is difficult because, not only communication is often lacking between the Government Departments and the people, but even between the identical departments of Central and State Governments themselves. There are cases where available finance is unused because there are no schemes coming up and on the other hand, Housing Board and voluntary agencies often do not know the source of finance. Public agencies are suffering from another problem of shortage of staffs and technicians leading to delay in construction, execution of the project.

10. **Problem of Land Policy**: The Urban Land Ceiling and Regulation Act has restricted the supply of land for construction purposes. The “Ulcra Property”, a land exceeding permissible limit under Urban Land (Ceiling and Regulation) Act, 1976 vested by KIT, owned by individuals are sold illegally to other people. Unauthorised high rises are coming up on these lands.

11. **Problem in Site Selection**: Newly developed EWS housing for either new housing project or rehabilitation are suffering from disrupted work-home relationship, also ill-related to social facilities and is often poorly served by public transport. Examples can be sited from Nonadanga where residents are dissatisfied with the location and services, feeling helpless under the process of bureaucracy.

12. **Problem in Cost-recovery**: Cost recovery in the subsidised housing projects for EWS is not achieved. The beneficiaries are unable to pay their contribution even at instalment basis. For example, in Nonadanga 1056 flats were constructed by KMDA to rehabilitate the evicted people from Tolly Nalla. Each flat costs Rs. 1 lakh of which 20000 was to be paid by the beneficiaries. Beneficiaries have paid only Rs.5000 till date. As a result, Government has earned a shortfall of Rs.1.5 crore from one project only. More over, due to political pressure the Government has announced another subsidised housing project to construct 2450 flats for EWS in the same locality.
13. **Rehabilitation Problem**: Rehabilitation of EWS people may result in two major problems. Wrong selection of site and rehabilitation package which ultimately leads to huge financial loss and wastage of man power and space. For example, KMC has planned to evict the dwellers along CP 1 and intercepting canal in Haltu, Newpark, Rajdanga and rehabilitate them in the newly constructed flats of near by Nonadanda mouza under BUSP. The beneficiaries have rejected to move to the new sites. Not only that, they have demanded land instead of flatted apartments as per their requirement. On ther hand, the subsidised flats are getting damaged on remaining unused.

14. **Problem of Housing Finance**: Like any other large metropolitan cities of India, Kolkata also suffers from black money circulation in the housing market, because, land supply and land price formation are defective. Still Kolkata real estate prices have never been speculative. Houses are very reasonably priced in compared to Delhi or Mumbai. Problem is that the housing finance institutions are still inaccessible to the poor with large gaps in the mobilisation of saving and investment in housing. Some initiatives have been taken but the results fall short of housing demand and housing need at this stage. Housing credit is inadequate and underdeveloped both with respect to developer’s need and affordable access of consumers. The Housing Finance Companies and Commercial Banks have made available easier home loan to MIG and HIG, but not to the poor. On ther hand, private developers are not concerned with the housing for LIG and EWS. Microfinance for shelter addresses a gap that larger scale mortgage lenders are unwilling to provide for. Wholesale bulk ‘Project Finance’ is usually at the level of developer or housing agency. There have been stark misuse of subsidies and public fund. The mass housing for poor becomes an issue of what is actually financed and whether sufficient finance are being mobilised.

15. **Problem of High-rise**: The skyline of Kolkata is changing fast. Due to high demand of housing and land shortage builders try to develop floor areas to the maximum permissible limit under the Kolkata Municipal (Amendment) Act, 1977. According to the Act, buildings more than 18 mt. in height are called ‘High-rise’. The investors try and make a maximum coverage of open area at the cost of health and hygiene of the occupiers and the city. The problem of the high-rises are manifold. It exerts
great strain on the existing infrastructure services like garbage disposal, car parking,
pressure on the ground water table, drainage, sewerage, electricity consumption,
traffic congestion etc. Other problems are fire hazards, high maintenance cost,
substandard buildings developed by developers. Quality of life also deteriorates in
absence of ample open space, children's play ground. Lastly, the most important
question is whether the soft soil of Kolkata is suited for tall building. Experts opine
that Kolkata is situated over Bengal basin which is a huge pericratonic territory with
enormous thickness of fluvio marine sediments. There is no hard rock within 80 mt.
in Kolkata. Depending on the soil condition, high wind velocity and location within
moderately susceptible to seismic sheer wave velocity zone huge and numerous
high-rises can result damages in year to come.

16. Environmental Problems:

- Today, problem of water logging and pollution are ubiquitous. As the maximum
elevation of the city is only about 10 m. (35 ft.) above mean sea level and the area
has little natural drainage, most of the numerous small streams which form an
intricate network throughout the area are in an advanced stage of deterioration
through silting. Therefore, during periods of heavy rainfall knee-deep flooding is
frequent. Kolkata’s piped water supply has always been inadequate. Since 1870
filtered water was supplied to a limited part of Kolkata Corporation area. Parts of
south and south east Kolkata have not yet provided with safe drinking water from
Corporation. As a result overdependence on the ground water is leading to
contamination and lowering of water table. The water table has gone down
dramatically as more and more deep tube wells are sunk in thiese areas.

- The problem of boring water from underground through deep tube well has led to
the problem of arsenic pollution and thus proliferation of cancer in the city.
According to a survey report, conducted by the School of Environmental Studies
under Jadavpur University, 77 wards of KMC are arsenic prone. The areas
particularly in south, central and south east, east and extreme west and north
Kolkata are affected severely. Ground water extraction through deep tube well in
multistoried buildings are resposnible for this since 1985.

- Heat island effect is a weather phenomenon seen in cities which have a sudden
spurt in number of high-rise building. The hot summer air confined within the
concrete jungle of multi storied buildings cannot flow out, creating pockets where it feels warmer 2 to 3 degrees than in other areas. The effect of this is already visible within city limits. The spurt in city's eastern limit is intensifying the heat island effect. The East Kolkata Wetlands had a soothing effect during the gruelling summer of Kolkata. As hot air circulated away from the heart of Kolkata the void was filled up by cooled air from wetland. But with more and more buildings coming beyond the E.M. Bypass the cooling effect has vanished. No environmental Impact Assessment was conducted before allowing high-rises to spring up all over the city. Unchecked use of steel, glass and aluminium cladding in buildings are said to be responsible for this effect by the experts. Massive concretisation, felling of trees, depletion of ground water and unchecked auto emission has accentuated the problem. According to the survey reports of NEERI "every day, more heat adds to the existing layers of heat in Kolkata (Times of India, April 8, 2007). Experts opine that this effect creates a localised micro climate in Garia, Regent Park, Tollygunge, Behala, Ballygunge, Dobson Road, Prince Anwar Shah Road, Tijlala, Topsia etc.

17. Unequal Distribution of Basic Amenities: The basic amenities are not uniformly distributed across the city. Due to unplanned growth and haphazard development the disparity becomes widened. Some are more affluent neighbourhoods and others way behind. The areas which were included under KMC area much later like Behala, Jadavpur, Garden Reach are backward in receiving the civic amenities. More over, wastage and misuse of amenities also accentuate the problem. Recently the Honourable Mayor of KMC has regretted that only 10 percent of the purified water supplied by KMC is used for drinking purpose. The residual amount is used for car washing and so on (ABP, December 22, 2010).

18. Social Problems:

- Both Government and private (JVC) apartments have large representation of general caste people, indicating slow and insufficient development of infrastructure facilities to backward and poor classes. It is observed that, households in HIG and MIG category are holding more than one Government or private apartments. As a result, due to lack of proper supervision poor people are deprived.

- One of the early difficulties in the housing complexes developed in new areas is conflicting relationship of existing communities to the new comers. New comers are
uprooted from their friends and jobs, they find themselves in unfamiliar surroundings. This change leads to dissatisfaction and distress particularly to the LIG and EWS.

• Quality of life is also adversely affected in large integrated modern housing complexes. HIG people are often reluctant to mix up with the other income groups within the same housing complex. Not only that, some special amenities provided only to the HIG like, swimming pool, gym, club create derogative inferiority to lesser income groups.


Several International contributions in the last century have imparted firm purpose direction to the development of strategies and programmes across the world. The Global Shelter Strategy to the year 2000 brought out by UNCHS in 1988 has provided guidelines for shelter programmes. India has committed herself to the considered goals of the global community. The GSS has stressed on the following aspects of housing policy;

❖ Establishing political commitments to enabling strategies
❖ Developing a policy and institutional framework
❖ Regulating land and housing development
❖ Developing Property Right
❖ Developing long term housing finance
❖ Rationalising Subsidies
❖ Providing Infrastructure
❖ Organising Building Industry

8.4. Agenda 21 (1992):

The Agenda 21, endorsed at the Rio de Janeiro Environment meeting of 1992, laid stress on the deteriorating situation in human settlement conditions. The features of Agenda 21 are:

❖ Adequate shelter for all
❖ Human Settlements Management

Problems and Mitigations
8.5. **Recommendations of National Housing Seminar**: The Ministry of Urban Affairs and Employment and Poverty Alleviation in collaboration with Ministry of Rural Areas and Employment had organised a seminar on “Adequate Shelter for All” in Vigyan Bhavan at New Delhi in October 1996. The seminar has recommended the following steps to mitigate the housing problem at the national level.

1. **Low Cost Housing**: The seminar has emphasised on the introduction of innovative options for building materials and technologies. For fast-growing metro cities using option such as ready mixed concrete, fibre-reinforced concrete, pre-cast elements, pre-fabricated systems, slip-on forms on construction has to be kept in view for action by the construction industry. The seminar also emphasised on transfer of knowledge, modernising building material enterprises, establishment of a technolegal regime.

2. **Housing Finance**: Increased accessibility of institutional credit for housing up to the level of LIG with their affordable limits by introducing fiscal concession was recommended. Tax free bonds for EWS and LIG housing were allowed to be floated by institutions like NHB or HUDCO. It also suggested to set up a National Housing Fund for cross-subsidisation in housing projects. For this, taxes may be levied for luxury housing, vacant land tax, heavy penalties on unauthorised construction etc. and crediting these proceeds into the fund to be utilised for above-said purpose through NHB or HUDCO. Initiatives by cooperative sector institutions may be taken to enhance the credit to its member. Initiatives may also be taken by the NGOs for enhancing mortgage loaning in informal sector of the city. Lastly, financial assistance from institutions like the World Bank and the Asian Development Bank was recommended.
3. **Habitat Related Infrastructure:** The seminar felt the necessity of a nodal agency at the national level to co-ordinate the policies and programme for development of housing infrastructure. The seminar also recommended to take up Common Minimum Programme and strengthen the IDFC for basic infrastructure development in the cities. Municipal bonds may be issued on which tax exemption may be allowed. A need was also felt to merge all programme of shelter upgradation and provision of amenities into an integrated package, uniform criteria should be followed in the extension of amenities and facilities. It also strongly recommended that municipal bodies should be involved in planning, designing and implementation of the housing problem.

4. **Legal Reforms:** The seminar recommended that the Urban Land (C and R) Act should be amended to switch over from existing regime of take over of ceiling surplus land for a nominal price by Government. Vacant land tax can be taken to prevent land price speculation. Lands purchased by private individuals or developers in public auctions should be automatically exempted from the provision of the ULCAR Act. The group also suggested to replace the Land Acquisition Act with a new legislation to speed up acquisition process, reduce litigation. Slum Acts were also recommended to be modified and updated to address the problem of Squatter settlement, unauthorised colonies and urban villages. Rent Control Act was also recommended to be amended to create a balance between the landlords and tenants. The group also suggested that the existing long drawn foreclosure procedure should be modified to expedite recovery of dues and encourage flow of housing finance. According to the group, transaction cost of housing should also be reduced.

5. **Role of Public, Private Developers and NGOs:** The group was in favour of the opinion that the role of public sector agencies should be transformed from a provider to a facilitator and catalyst. Land supply bottleneck were identified as critical obstacle in entire housing development process. Therefore, ensuring the supply of land at affordable cost to the poor, offering security of land tenure on the urban slum dwellers particularly women were recommended. The seminar emphasised the need to take up housing for the poor as a part of poverty alleviation programme. Public Private Participation should be the motto of upcoming housing projects and "Partnering Resource Productivity" should be focussed.
8.6. National Urban Housing and Habitat Policy, 2007:

The National Housing Policy, formulated earlier, keeping in mind the above mentioned policies was revised in 2007. The new National Urban Housing and Habitat Policy, 2007 is aimed to provide affordable urban housing and other basic infrastructure to all sections of the society with special reference to EWS and LIG. The salient points of NUHHP, 2007 are:

➢ Emphasis has been laid on urban planning, increased supply of land, use of spatial incentives like additional Floor Area Ratio (FAR), Transferable Development Rights, increased flow of fund, healthy environment, effective solid waste management and use of renewal sources of energy.
➢ Housing and basic services to urban poor has been integrated under JNNURM
➢ Special emphasis had been laid on Scheduled caste, Scheduled Tribe and other backward classes, minorities and empowerment of women.
➢ Integrated Township has been encouraged in which a reservation of 10 to 15 percent of land in every new public or private housing project is to be reserved for EWS and LIG.
➢ Private sectors to be permitted land assembly within the purview of Master plan. Action Plans for urban slum dweller, cooperative housing, labour housing, employee’s housing has to be prepared. States have to prepare 10 years Perspective Plan for EWS and LIG housing.
➢ Policy gives primacy to provision of shelter for poor at their present location or near their work place and in situ slum rehabilitation.
➢ Micro finance institutions to be promoted to expedite flow of finance to the poor.
➢ Use of proven cost effective technology and building materials.
➢ Development of mass rapid transit system, green cover for cities, and preparation of “Habitat Infrastructure Action Plan” for all cities with a population of 1 lakh.

8.7. Relevance and Reviews of Activities by Government to Mitigate the Housing Problem in the city:

In the Pre-Independence era, whatever improvement schemes were made under various legislation like C.I. Act, 1911 were subjected to levy. The programmes were made to improve the quality of life of people who could afford it. After Independence
the Government constructed Public Housing for HIG, MIG, LIG and EWS people on rental basis for both Government Employees and others under Social Housing Scheme, 1954 and Slum Clearance Scheme, 1956. Shelters were also provided to the industrial workers in IHS estates. Since 1970s the different public agencies are providing ownership housing to all income categories. The JVCs and Associate Companies have also joined the WBHB since 1990s and working on PPP model to provide public housing at an affordable rate. The supply of housing has been lopsided. Moreover, pavement dwellers, hawkers, refugee colonies have failed to draw attention of the public authorities. However, several housing programmes have been taken up for the Bustee dwellers. These are:

I. **Slum Clearance and Relocation:** In 1960s four storied walk up buildings were erected by KIT and Housing Directorate. KIT had acquired a number of Bustees, for clearance and relocation of registered Bustees.

<table>
<thead>
<tr>
<th>Agencies</th>
<th>No. of flats completed</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>KIT</td>
<td>4588</td>
<td>7742</td>
</tr>
<tr>
<td>Housing Directorate</td>
<td>1592</td>
<td>1592</td>
</tr>
</tbody>
</table>

Table-8.1. Number of Completed and Projected Flats in Kolkata till 1969

Source: Centre for Built Environment

II. **Slum Conservation and Upgradation:** The 'Slum Clearance and Relocation' model was replaced by 'Slum Conservation in 1970s which had 3 major programmes.

a. **Slum Improvement Programme:** This programme was launched in 1970s by KMDA with the World Bank funding to upgrade the infrastructure and civic facilities such as, providing piped water, sanitary facilities, drainage, paved paths, health and education in registered Bustees. Till 1987-'88 more than 65 percent of the Bustee dwellers were covered under the programme.

b. **Small Scale Entrepreneurs Programme (SSEP) (1978-1991):** This was a complimentary programme to BIP to extend credit facilities to the informal sector activities pursued by slum dwellers. It was launched by KMDA in 1978.

c. **Upgradation and Support for Squatter Settlement:** In refugee colonies KMDA and KMC have made limited attempts (200 out of 1150 refugee colonies) to extend civic facilities only in Government sponsored settlements.
III. Sites and Services: This model has been prompted by the underlying objective to increase the supply of serviced land to the poorer section of the society and facilitate housing construction by self help methods. It seeks to accommodate low income classes and provide high subsidies (between 50-60 percent) to them. KMDA has undertaken such schemes with assistance from the World Bank at Baishnabghata Patuli and East Kolkata.

All three approaches were criticised on the ground of non-effective work place relationship. The flatted accommodation pattern, location of serviced sites did not suit the activity pattern of the target group. The non involvement of beneficiaries in the improvement process led to lack of belongingness among the target group. Moreover, there was no in-built mechanism for maintenance.

- Jawaharlal Neheru National Urban Renewal Mission:

<table>
<thead>
<tr>
<th>Sl no.</th>
<th>Location</th>
<th>Name of Authority</th>
<th>No. of dwelling units</th>
<th>House Types</th>
<th>Plinth Area (sq. ft.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Baishnabghata-Patuli Township</td>
<td>KMDA</td>
<td>332</td>
<td>One roomed, kitchen, balcony in four storeyed buildings</td>
<td>219</td>
</tr>
<tr>
<td>2</td>
<td>Chetla</td>
<td>KMDA</td>
<td>96(phase-1)</td>
<td></td>
<td>242</td>
</tr>
<tr>
<td>3</td>
<td>Nonadanga, East Kolkata township</td>
<td>KMDA</td>
<td>1056</td>
<td>Two roomed, balcony, toilet and kitchen in five storeyed buildings</td>
<td>219</td>
</tr>
<tr>
<td>4</td>
<td>Rajarhat</td>
<td>KMC</td>
<td>59</td>
<td></td>
<td>225</td>
</tr>
<tr>
<td>5</td>
<td>Garden Reach</td>
<td>KMC</td>
<td>100</td>
<td></td>
<td>225</td>
</tr>
</tbody>
</table>

Source: KMDA and KIT, 2010

A number of shelter programmes for urban poor have been taken up by Central and State government in last decade. Such as Two Million Housing Programme, VAMBAY etc. VAMBAY is a centrally sponsored scheme, announced in 2001, targeted for
providing housing to the urban poor with a view to creating slumless cities by KMDA and the Government of West Bengal. The beneficiaries are mainly EWS of backward classes and handicapped people residing in squatters and Bustees. Each flat, covering plinth area of 219 to 249 sq. ft. on an average, costs Rs. 60,000 to Rs. 80,000 of which Central Government and State Government have contributed 50 percent and remaining was expected to be contributed by the beneficiaries. Bank loan of Rs. 20,000 was also offered to them. KMDA and KMC have undertaken the following programmes under JNNURM. The progress of VAMBAY is also not impressive due to nonavailability of excess land in possession of KMC to build houses, very low unit cost (Rs. 60,000) fixed for the construction of houses, nonavailability of bank loans to beneficiary contribution of 50 percent of the cost which appears to be unrealistic for poor families. The KMDA project is also suffering from wrong selection of location, problem of cost recovery, lack of physical and social infrastructure and poor construction. The beneficiaries have denied paying their contribution. Some flats are vacant because the target group is unwilling to shift to these new houses.

8.8. Policy Suggestions: Keeping the limitations of the previous and recent housing projects and recommendations suggested by different national and international organisations in mind some policy suggestions are discussed below.

1. Amendment of Urban Land Ceiling Act: Urban Land bank can be created by enlisting lands already vested under Urban Land Ceiling Act along with Municipal and Government vested land may be utilised for EWS and LIG as well as site and service schemes wherever possible. In order to discourage luxurious housing for a few the ceiling law can restrict total permissible value for an individual unit for a family within the city limits by providing compensation. In this way housing land bank can be created by acquiring many dwelling units which are captive in moment, released for social purposes for augmenting the housing stock for living. The surplus houses acquired by the Government can be used as either rental houses or Government quarters or can be rented to the private sectors after some modification. At the same time, black money investment in housing, price speculation can be reduced. More over, to ensure rational and optimum use of existing housing stock higher rates of property tax can be charged on houses with actual little occupancy rate.
2. **Fiscal Policies**: Progressive property tax, betterment levy, taxation on vacant plots until either houses are built up on them or they are taken over by the State, higher stamp duties and registration fees to discourage speculative transaction on land and housing are essential. However, it has to be related to the concrete economic, social and fiscal landscape. Development of a secondary mortgage market for securitisation of housing loan can be created for promotion of housing finance as well as for resource mobilisation and speedier recycling of funds. For this a number of amendments in Stamp Duty Act, Foreclosure Laws, Companies Act, Securities Contract Act, Income Tax Act have to be done.

3. **Cooperative Initiative**: Cooperatives and community based organisations are comparatively free from the ills of organisational hierarchy, procedural rigidities, and centralised functioning. Strong information base and full understanding of the local issues and circumstances, low overheads and transactional costs equip them eminently to reach target group and communities which might otherwise be by-passed by the market-driven and impersonal development process. Cooperative societies are best suited for neighbourhood development including development of houses. Cooperative sector is to be developed further and oriented towards EWS and LIG based on Self help philosophy where only essential services would be laid on and people would be encouraged to build their own homes with some technical assistance like supply of pre-fabricated materials. In case of the families with little higher income the housing agencies could consider providing in addition to a site, a plinth, a toilet and some kitchen fixtures. For families with still higher income, a room, a provision for upward expansion could be a viable proposition. Examples can be sited from successful self help housing project at Hyderabad, mass housing at Baroda. It demonstrated that the classical community development approach of urban poor can be effective both in providing cheap social services and basic amenities. High profile housing finance institutions shall not be able to reach the poor communities in slums without linkage with community initiatives and aspirations. It is not through issuing flat by public agencies that one can change the shape or make things happen in low income settlements. Legal and administrative difficulties should be removed in the way of voluntary agencies desiring to take up housing scheme. The United Nations Human Settlement Programme (HABITAT) has recognised cooperatives as stake-holders at local
level that compliment and supplement the Governmental efforts in meeting housing need of the people.

4. **Decentralisation of Authority:** At present all decisions are taken at top level which delink the programme from the beneficiaries. An advisory body may be constituted including public agencies, contractors, cooperative societies, voluntary agencies and more importantly people themselves. The housing agencies are subject to extensive control in acquisition of land, loan, power to mortgage and formulation of scheme. The housing schemes should be based on local need, therefore, decentralisation of power is a must. Better communication channels between different departments of Government and NGOs should be established to avoid overlapping and duplication.

5. **Public Private Partnership:** The public and private sectors should be complementary to each other. Keeping in view the fund crunch the role of Government should be to provide basic infrastructure, supply serviced land, cheap building materials and loan. On the other hand, private sector should go on providing mass housing at affordable rates to EWS, LIG on no loss no gain basis. Optimum profit can be obtained from high-rise HIG apartments. Sale price of MIG houses should be fixed at a rate to reach the beakeven. It is important to consider that the construction standard should be related to the paying capacity and follow the building regulation rule of KMC, 2009 and National Building Code 2005.

6. **A Suggestive Model on Slum Redevelopment:** Rehousing and reconstruction of Bustees or squatters should be based on aided self help method. Private sectors, NGOs and community based organisations are to be motivated. From the past experiences it is clear that the concept of ‘Slum Clearance’ should be replaced by ‘Slum Redevelopment’ or modernisation and ‘Slum Improvement’ in some special cases. However both the alternatives discourage change in location of the new housing project. Slum Clearance actually encourages the growth of new slums. The renowned Sociologist and Town Planner Petrie Geddes evolved his well known approach of “Conservative Surgery” which “aimed at removing the worst excesses of the local environment and using the space left over to either construct new buildings of slightly higher standard using a similar technique, or to provide community facilities and
services” (Geoffrey K. Payne, 1977 page no. 203). The following case studies will help one to draw guidelines in preparing plans for Bustee redevelopment.

Table-8.3: Comparative Analysis between Govindapur and Nonadanga EWS Housings

<table>
<thead>
<tr>
<th>Characteristic Features</th>
<th>Case Study-1</th>
<th>Case Study-2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name of the Housing Project</td>
<td>Govindapur</td>
<td>Nonadanga</td>
</tr>
<tr>
<td>Location</td>
<td>Ward no. 93 of KMC</td>
<td>Ward no. 107 of KMC</td>
</tr>
<tr>
<td>Name of the Developer</td>
<td>WBHB</td>
<td>KMDA</td>
</tr>
<tr>
<td>Category of Housing</td>
<td>EWS sharing housing the project with LIG, MIG and HIG</td>
<td>Exclusively for EWS</td>
</tr>
<tr>
<td>Number of Houses</td>
<td>25</td>
<td>800</td>
</tr>
<tr>
<td>Location of Last Residence</td>
<td>Same</td>
<td>At an average Distance of 8 to 10 km</td>
</tr>
<tr>
<td>Type of Houses</td>
<td>One roomed, single storied row houses with separate kitchen and attached toilet</td>
<td>One roomed four storied flatted buildings with attached toilet but no separate kitchen</td>
</tr>
<tr>
<td>Sale price with Year</td>
<td>Rs. 48000 (1996)</td>
<td>Rs. 100000 (2005) of which contribution by beneficiaries is Rs. 20000.</td>
</tr>
<tr>
<td>Carpet Area of each dwelling</td>
<td>210 sq. ft.</td>
<td>190 sq. ft.</td>
</tr>
<tr>
<td>Condition of Structure, Ventilation, maintenance</td>
<td>Satisfactory</td>
<td>Poor</td>
</tr>
<tr>
<td>Drainage</td>
<td>Under Ground</td>
<td>Open Pucca</td>
</tr>
<tr>
<td>Mode of Garbage Disposal</td>
<td>Presence of one garbage vat constructed by the developer</td>
<td>No arrangement</td>
</tr>
<tr>
<td>Source of Drinking Water</td>
<td>One deep tube well and corporation supply</td>
<td>Only one deep tube well</td>
</tr>
<tr>
<td>Nearest Educational Institute within 1 km</td>
<td>3 primary schools, 2 Higher Secondary Schools, 1 college</td>
<td>One primary school</td>
</tr>
<tr>
<td>Nearest Hospital</td>
<td>1 km</td>
<td>4 km</td>
</tr>
<tr>
<td>Nearest Railway Station</td>
<td>200 mt</td>
<td>4 km</td>
</tr>
<tr>
<td>Nearest Daily Market</td>
<td>500 mt</td>
<td>2 km</td>
</tr>
<tr>
<td>Nearest Bus Stand</td>
<td>500 mt</td>
<td>2 km</td>
</tr>
</tbody>
</table>

Source: Field Survey, 2010

✓ The project should be based on cross subsidisation and follow the PPP model.
✓ The target group are to be clearly identified. The physical possession of assets in terms of land, building, slow moving vehicles and access to other amenities may

Problems and Mitigations 219
be considered as indicators, weightages are to be given to different indicators. On the overall weightage of the category of the household has to be determined in terms of very poor, poor and ultra poor.

✓ New EWS and LIG houses should be constructed following the lowcost technology in the existing site by demolishing the old structure.
✓ Possibilities for supplying non-conventional building materials for construction of Bustee houses can be explored.
✓ The informal labourers of slum dwellers should be employed in construction of the same resulting into economy in the construction cost.
✓ Slum dwellers should be accommodated in single storied one roomed Row houses with provision of vertical expansion in future.
✓ Four storied walkup buildings of flatted apartments can only be provided to those slum dwellers who can afford it to purchase and maintain.
✓ The EWS and LIG households should be given security of tenure to women under a strong supervision by the Government to check the illegal transfer of lowcost houses to the higher income groups. Possibilities of long term leases may be applicable.
✓ The residual plots should be used for social amenities and construction of high-rises to be sold to the HIG and MIG at market price.
✓ A permanent council consisting of representatives of Town and Country Planners, Policy makers, Civic Authorities, NGOs, CBOs, Private developer, Financial Institutions and community leaders from existing Bustees may be established. They should be involved in negotiation of the term of specific project and be responsible for implementation in detailed problem of plot layout and house construction. Increased responsibility of community leaders should assist in creating wider public support. In this way administrative problem of public authorities in implementing programmes can be reduced.
✓ In order to achieve an organised movement of population into new settlement it is necessary to ensure that only those families that wish to move do so. Forceful movement can increase the sense of insecurity which would reduce investment. Accordingly, security of tenure should be available to existing squatters, leaving
them stay where they are and possibly improve their shelter and living environment.

- Wherever insitu development is feasible provision of basic services, poverty alleviation programme may be taken up to make the areas habitable. Extension of living facilities for proper living and subsequent maintenance of own structure along with preservation of common civic facilities can also be provided.

- Construction of transit temporary tenement built up with prefabricated structure is needed to accommodate shelter during redevelopment period in a part of the project. This tenements can be dismantled easily after the redevelopment is complete.

- Lastly, the projects need some flexibility in execution. There should be feedback from the implementation stage and the plans as well as the projects should be modified accordingly.

7. **Rehabilitation of Unauthorised settlement**: Wherever neither tenemental scheme nor in situ development is feasible rehabilitation in nearby location is the only alternative. EWS people residing in street or along the canal site should be rehabilitated in the already developed areas as much as possible on subsidised basis. The sites should conform to the requirements of the beneficiaries. For successful rehabilitation a Social Impact Assessment is necessary as suggested in the National Resettlement Rehabilitation Policy, 2007. A survey should be conducted to identify the members carrying on trade, families losing trade, livelihood etc. and also publish the results and discuss it publicly with the representative from the affected areas.

8. **Housing for the Pavement dwellers**: Since these people can not afford to build their own housing, subsidised dormitory shelters can be constructed in the vested lands with the financial assistance of NGOs. NGOs may also be engaged in management of such shelters in different areas.

9. **Housing for the Hawkers**: This group being financially stronger compared to those of pavement dwellers, may afford to pay rents for their shelters which may be of a dormitory type.

10. **Housing for Refugee Colonies**: Proper title of land should be given to the plot holders of such settlements. Existing housing stock should be regularised by KMC.

*Problems and Mitigations*
Further building constructions are to be regulated in these plots with the help of prevailing Acts and Rules to maintain environmental condition within permissible limit.

11. **Construction of New Housings for HIG and MIG:** The HIG and MIG houses should be constructed in the newly developed outskirts of the city where land price is cheaper compared to the land price in the inner areas of the city. The social and transport facilities are also not well developed in these areas. Therefore, the sale price of houses will be automatically lower compared to the houses in the city proper. Different types of flats, row houses, bungalows can be constructed and sold at the market price. Public and private sectors can go for a competition in structure, design, amenities and price. The perfect competitive market will also reduce the sale price of the houses. In this way, public and private agencies of housing can earn some profit from the project as well as HIG and MIG households can also fulfill their dream to own houses at affordable rate within the city limits.

12. **Amendment of the Rent and Accommodation Control Act:** The Rent and Accommodation Control Act should be modified to provide for the protection of existing tenancies, institutionalisation of a system of rental increase, delinking the non-residential tenancies from the residential, the offering of incentives for new construction and improving the tax base of the Corporation, provision of short term tenancy of at least 3 years instead of 11 months and assurance to landlord for eviction of tenant after the termination of the said period. New mechanism is to be established which provide both tenants and landlord some equity in the property which can be negotiated on the principle of premarketing.

13. **Preservation of Existing Housing Stock:** In our developing economy it is important to ensure that the existing housing stock is preserved as much as possible and its life span is strengthened, while the new housing stock is being created. A policy and a separate Board on house repair and preservation of housing stock with owner tenant participation can be set up as one has noticed in the Mumbai. The Board will identify structural repairs to buildings each year, reconstruct old dilapidated buildings which are beyond economic repairs and construct transit tenements for tenants during the period of repair. The old buildings should get a “fit certificate” from KMC at a regular interval of 5 years. The owners of such buildings may be provided some relaxation in tax payment by the KMC.
14. **Enactment of Building Rule:** Proper building rules as per Kolkata Municipal Act, 2009 are required to be enforced along with specific considerations contemplated to be laid down under the provisions of Town and Country (Planning and Development) Act, 1973. According to the recommendation of HUDCO mandatory provision of greens, and public road or parking at the rate of 10 sq. mt. per person should be ensured. Planning laws should encourage the development of low-rise high density, labour intensive housing economical city configuration and discourage concentration of high rises more than 20 ft. in height. Provision should be made in order to control multistoried highrise buildings specially by private promoters. At the sametime, conservation of certain buildings must be properly guarded under the provision of Town and Country (Planning and Development) Act, 1979 so that unchecked construction of high-rise building by demolition of such structure may be avoided.

15. **Building Material Consumer Cooperative:** Building Material Consumer Cooperatives should be set up and spread a network of fair price shops selling all building materials at controlled prices to ensure the regular and cheap supply of the building material. Attempts should also be made for manufacture of some essential materials such as bricks, lime, cement, flush boards for making building accessories such as hardware, sanitary ware, A.C. sheets, spun pipe etc. through public sector.

16. **Construction of Low cost housing for urban poor:** Low cost housing can be constructed by using cheap and locally available building materials and applying innovative method of housing construction. Logical substitute in use of building material can cut the price of housing. For example, use of pressed soil blocks and hollow fly ash bricks instead of conventional bricks in the following manner result into an economy in construction of price by 25 to 30 percent.

   a. Pressed soil blocks may be used in load bearing walls of low rise buildings and also in filler walls of framed buildings.

   b. Cement stabilisation works extremely well with sandy clay, sandy clay loam and sandy loam.

   c. Lime and cement stabilisation yields good result with silty clay, silty clay loam and silty loam.
Plate 8.1. Ill Maintained Flatted Apartment for EWS at Nonadanga

Plate 8.2. Well Maintained Row House for EWS at Govindapur

Plate 8.3. Well Maintained Row House for LIG at Govindapur
d. Fly ash or sand should always be mixed with clayey soil in ratio of 60:40 and lime should be used as stabiliser.

e. Unstabilised blocks may be used in interior filler walls of buildings and cement sand plastered.

f. Rat trap bond should be used for 300 mm thick walls and conventional bonds may be used for 300 mm walls.

g. Mortar treated sheets may be used as door and window shutters.

Another interesting and important feature of this low cost housing is its modern roof casting technology. This roof casting technology can replace the concrete casting of entire roof which eats up at least the one third of construction cost. In West Bengal the Forum of Scientists and Technologists (FOSET) in association with HUDCO and Zilla Parishad has already constructed low cost housing complex at Barrackpur. This model should be implemented in mass housing in the city particularly for the LIG and EWS. Prefabrication has proved to be the most satisfactory method for reducing the consumption of structural materials and consequently the cost of materials. Prefabricated panels can be manufactured in forms made of durable wood which can be used many times. Here, use of smaller size panels, which can be produced and assembled on the construction site manually without special equipment is suggested. The use of the standard panel eliminates completely the forms and scaffolding and need for plastering the concrete surface. Wooden forms can be used 100 to 300 times. Thus in the long run it would be still cheaper and more convinient to use stronger forms made of steel. These roof panels can be used on any load-bearing wall girder for roof or for floor in multistoried buildings. New housing types and new innovation in the technique of housing construction, typification of dwelling units following the HUDCO's proposal should immediately be implemented.

17. **Construction of Eco Housing:** A Green or Eco housing is one which encompasses the use of clean and renewal energy, efficient use of water and water recycling, use of non-toxic and recyclable building materials and provide healthy indoor air quality with
minimum disturbance to landscape and site condition. Green buildings have become inevitable to check increasing ecological imbalance due to massive construction activities in the city. It reduces energy and water cost by 25 to 40 percent depending on the green specification. Use of eco friendly and energy efficient substitutes such as fly ash, phospho gypsum, alumina red mud, slags and industrial sludges should be used in building materials. Judicious use of water, use of alternative energy for lighting should be popularised. According to HUDCO estimate, flushing cisterns in toilets consume 12.5 litres of water per flush. Fresh water should not be used in Air Conditioner machines and flushing of toilet. Therefore, use of cost saving devices for ecologically appropriate infrastructure should be considered. Such as, user-controlled flushing devices, use of flow control taps, spray or aerating taps, use of PVC pipes and ferrocement water tanks can reduce the water consumption. The WBHB in New Town has already started to generate electricity from solar pannel in housing complex called Rabirasmi Apartment for power consumption of the households. The KMC should immediately implement the Green Building Code like already implemented in Pune. Tax incentives can be introduced to promote Green buildings.

18. Preparation of Perspective Plan for the city: A perspective Plan for housing should be prepared for at least 10 years as proposed in the NUHHP, 2007. So that, trends of overall development of which the projected housing will be a part can be anticipated. Depending upon the trends of growth, detailed urban design and zoning studies should be undertaken for achieving environmentally appropriate planned development. This will reduce the unanticipated problems in other sectors such as services, traffic, zoning etc. It will also help in urban renewal in future.

19. Provision of Multi-storied Buildings: The mushroom like construction of multistoried buildings should be checked by the civic authorities. Certain zones may be created within the city where higher structures are to be allowed after proper Environmental and Social Impact Assessment, soil testing and measuring ground water table. Fire fighting arrangements should be strictly followed in these buildings. Provision of minimum 2 staircases, fire alarm system, fire control room at ground floor, passage way, corridor, ramps, a free enclosed space at a height of 25 to 30 mts from ground level for escape purpose must be arranged. 10 percent of open space for community purpose and another 10 percent of open space for parking in addition to
the required open space around the building should be provided. Rain water harvesting on the roof of the high-rises must be made mandatory. Ground water should be recharged through supply of water from the roof to prevent the lowering of ground water table.

20. Dispersion of Population: Dispersion of population particularly MIG and HIG to the new planned residential townships is necessary to reduce the pressure on the existing city infrastructure. These townships should be self-sufficient in nature. Housing areas must be planned in an optimum relationship to all the daily functions of residents such as school, play areas, corner shops etc. must be located at the edge of the residential areas within walking distance of all residents. Many noise-free, clean, light and service industries and small offices, housed in modern buildings, can be integrated with housing. More Newtowns like Rajarhat or Kalyani are needed to grow in developing growth centres in the vicinity of the city like Barasat, Sonarpur, Baruipur, Uluberia, Budge Budge, Chandannagar, Bandel, Barrackpore etc. which are located within the commuting distance of one hour from the CBD. The CEO of KMDA opines “in the next 20 years, 590 million people will flock to suburban areas” (TOI, October 4, 2010). As a result, KMDA is preparing to create matching infrastructure to accommodate the population.

21. Construction of New Rental Houses: EWS and LIGs however should be accommodated in the city proper as they can not afford a huge expenditure on the transport. One obvious way to enable these urban poor to live in decent accommodation is to assist them by rent allowance. Since the earning of a proportion of tenants occupying subsidised housing are sufficiently high for them to purchase a home of their own it would seem sensible to encourage these tenants to buy their own houses and release the subsidised dwelling to those in greater need. In this regard private landlords should also be encouraged by providing financial incentives who will provide cheap and decent accommodation to the private tenants.

22. Social Planning: Housing should fulfill the need of individuals. Therefore, a need to provide a growing variety of good housing for different age groups, profession is necessary. It must also take into account the people’s preferences. Housing authorities should ensure that there is an adequate mix and volume of house types to meet the needs of people in the locality. Social planning must be brought fully into housing at all
levels by public authority. Social planning would encourage the developers in providing housing to satisfy individual needs in relation to the life cycle, provide the opportunity for social mix of different income groups and ensure that existing undesirable divisions in society are not reinforced. Housing authorities should plan their housing to maximise freedom of choice and allow for social mobility and provide a built in flexibility to alter or extend their houses. Social considerations would influence the physical form of the housing. Scope could also be provided for people to have a greater say about their houses by leaving them partially unfinished for final makeover by the residents. In large scale integrated housing complexes minimum equal facilities to all residents should be provided so that discrimination can not make a barrier, making small societies within large society.

23. **Social Reform**: Environmental education should be provided to the urban poor for awareness of health and hygiene and to build up a sense of responsibility towards the community and its environment in all sections of the society. There can never be any adequate solution to the problem of housing without exerting a tight control on the growth of our population and check on rural urban or intra urban migration.

24. **Role of Research and Development**: Continuous research programmes serve as a vital element in the formulation of policies. It should ideally be integrated to pilot project for testing of alternative approaches and their evaluation. In this way research and micro level survey can serve to monitor on-going programme and explore alternative without committing large investment of scarce resources and successful projects then be incorporated into the mainstream local authority programme.

25. **Provision of Housing Advisory Service**: A Housing Advisory Service in all communities should be established which would inform people of opportunities of housing for rent, sale and advise them generally on housing matters.

**8.9. Conclusion:**

The Government should go out all the way to encourage entrepreneurs who come out with any idea in field of housing material, technique, finance, organisation, technology, cooperation or education by helping from think tanks. Implementation of the research is also necessary. Mandatory use of only building materials, bearing label of BIS based on recycling of different types of waste, by products and residues which otherwise
contribute to environmental pollution, by both public and private agencies are the only way out in near future. Following a ban on use of wood in Central Government works the CSIR is coordinating research on innovation of new wood substitutes for use in housing. The preparation of detailed action plan should focus attention on integration of housing with full range of social, educational and leisure facilities, social aspects must underlie the physical proposal. Involvement of local residents and beneficiaries is a pre-requisite for final planning of housing for EWS and LIG. The housing programme and strategy in future requires a host of changes in management, philosophy, practices and procedures and must be people oriented. Since the bulk of housing effort will necessarily be in the private and cooperative sectors, an organised planning is necessary. Lastly, the KMC should adopt a policy to standardise the city’s civic services and create uniformity for all 141 wards.

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Problems and Mitigations