Outreach of Pro-poor Housing Programs and Projects: Is it sustained?

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ABSTRACT

Affordable housing for urban poor is one among the hot button issues among all policy makers and planners in countries of global south. Grand schemes with extravagant promises in the formal sector and gigantic hope for informal sector, to capture the opportunity at bottom of pyramid, are simultaneously trying to curb the problem of affordable housing shortage for urban poor. Even though private sector does not purposely seek to cater housing for lower income sections, yet large quantum of investment have been witnessed in housing for the urban poor. It is well known that in a free market tussle, the highest bidder is always the winner. This has been a major reason for creation of artificial shortage of housing for poor. And the scenario is worse in case of public housing, where, half of the units are either left purposeless or used by ineligible users, largely due to risk of impoverishment and improper post occupancy vigilance. The magnitude of post occupancy problems being unexplored, the objective of paper pertains to looks at the challenges and issues in sustaining targeted outreach to intended beneficiaries in housing supply models for urban poor. The paper elaborates distinct challenges through three housing supply models in Ahmedabad, India. The models are Rehabilitation Housing, Subsidized Housing by government and market provided Housing. The method is mixed method i.e. qualitative and quantitative research using primary and secondary data sources. The critical analysis of effective outreach is carried by studying policy rhetoric in each of the models to on ground veracity in the post occupancy stage of model by assessing end user satisfaction in each model.

1. Introduction

Fostering for socio-economic stability and promoting national development in developing countries has never proved easy. Before resolving any urban problem, the increased rate of urban population or urbanization constantly bother planners, by altering the anticipated outcomes of planning projects and policies. Certainly, urbanization offers better prospects in life. But along increasing the economic status of cities, urbanization also lead in inequitable development where the poor largely crave for more subsidies. This is very evident in the developing cities of Asian region, where the urban fabric is largely suffering from urban divide. Asia, despite having lower level of urbanization, homes 53% of total world urban population (UN, 2014). The region might feature urbanization rate of 64% in 2050 from 43% in 2010 (UN, 2014). On the darker side, about one-third of Asia's urban population lives in slums (UN, 2014) and with increase in urban population, the rate of slum population is estimated to increase further. If rapid growth cannot ensure basic minimum facilities, the fast pacing region will end up in urban squalor than urban splendor. This is where one must ensure development with performance of inclusiveness.

But, the story of inclusiveness cannot successfully end with grand schemes and extravagant promises of bureaucrats. Rather one must ensure in sustaining the actual purpose of the formulated programs. One of the examples for ineffective inclusiveness is the paradox of Indian Housing Market where large volume of housing transactions are lying vacant on one hand and massive population are yet craving for house on other hand. Around 95.6% of total 18.78 million, urban housing shortage is recorded in Economically Weaker Sections (EWS) and Lower Income Group (LIG) of country. And surprisingly, around 11 million stocks are lying vacant or unused (MHUPA, 2012a). On the other end, researchers have shown that "the units vacated are precisely the ones that would allow the more affluent slum dwellers to move out of slums and afford older units in the formal market" (Annez et al., 2010). If that was true, 11 million housing stock would not have been left vacant or unused.

In order to curb the affordable housing shortage for lower income sections, Indian housing market experienced various supply models (Batra, 2009). Many models are formulated by the government and later subsumed or discontinued with change in market dynamics. Broadly, the models are Rehabilitation housing, Government

Subsidized Housing and Private/Market based housing. Few of the programs actively working under the three models are: Basic Services for Urban Poor (BSUP) under Jawaharlal Nehru Urban Renewal Mission (JnNURM), Rajiv Awas Yojana (RAY), Slum Rehabilitation Scheme (SRS). But the myriad attempts yet, are unable to fulfil the desired goals. Out of the approved 1,517 projects in BSUP which were to cater to merely 6% of housing shortage declared in 2007 (Mahadevia et al., 2013), only 22 projects were actually completed (The Economic Times, 2012).

Apart from the government funded projects, even with huge interest of private sector in affordable housing for lower sections, so far only 78,000 units are launched all over India in past five years, costing below INR 1,000,000, which catered to only 1% of shortage recorded by MHUPA (Monitor, 2013). Monitor (2013) shows that households earning INR 10,000-25,000 can afford privately built formal housing, costing INR 400,000-1,000,000 without any assistance from the Government. It is estimated that 15 million households are part of the Lower Income Group (LIG) (Monitor, 2013) in India. Even with huge demand, the outcome discussed above contradicts the envisaged results.

1.1   Problem Statements

Firstly, the efforts to resolve the housing shortage for poor, may be the public or private, are lesser due to myriad supply side constraints. Second, the efforts to sustain the actual purpose of building LIG housing units are even lesser. Literature shows that housing stock built under BSUP, largest housing program in India, are left unoccupied despite of allotment. "Only 52 per cent of the total one million approved dwelling units were constructed and out of the approved, only 36 per cent are actually occupied (Patel et al., 2015). In most cities across India, it appears that BSUP housing stock is left largely unused and unoccupied. Around 57 per cent of BSUP housing in Bangalore was left unoccupied (Rao, 2012) and almost "90 per cent was left unoccupied in Greater Hyderabad" (Mahadevia et al., 2013). And our research shows, around 52% of housing (BSUP) are utilized by unintended beneficiaries. Our research further shows that in the private based housing, around 40% units are rented out in which more than half are purchased by the investors themselves and later rented out to the needy creating artificial shortage of supply for the poor.

Featuring major criticism on the supply models for the failure of sustaining targeted outreach - BSUP resettlement projects are largely implemented in the city peripheries, distant from workplaces, schools and hospitals, and thus not meeting the criteria of adequate shelter (Patel et al., 2015). "Contrary to the objective of providing in situ basic services to poor households, in most cities BSUP projects have funded off-site rehabilitation housing for project-affected people, thereby depriving the intended urban poor beneficiaries of outreach" ("Foisting Mass Housing on the Poor: Lessons from Social Audit of BSUP," 2013). Interestingly, one of the critical argument made by De Soto (2000) relates the role of tenure status with household living conditions. The argument is that tenure security and legality are significant parameters for improved housing conditions and consequently, settlement development. This is inquired in the case of Ahmedabad and discussed in the discussions section. In case of markets, the exorbitant land prices are the major supply constraint and contributes substantially to the dwelling unit cost, especially when it is in purview of city limits (Gandhi, 2012). This tends the private developers to locate the project sites in the periphery of city and leading high increase of transportation costs for the poor (Gandhi, 2012).

The paper here, outlines the second problem, 'reasons for the inability

to sustain the targeted outreach to intended beneficiary'. The attempt of featuring three distinct models is to emphasize, that the issues and challenges in each model has equal possibility to occur in other, resulting in unpredicted outcomes. A cautionary approach is utmost necessary to sustain the desired outcomes in planning or else we end in cross roads formulating more and more models without being informed by the previous models challenges and issues.

1.2   Objective

Towards this attempt, the objective of paper is 'to understand causes of inability of the models to reach and sustain the targeted outreach to intended beneficiaries. The three models are Rehabilitation housing, Government Subsidized housing and Private/Markets based housing.

2.   Methodology

The research is based qualitative method drawing using primary and secondary data sets. The qualitative primary data sets are obtained through semi structured interviews, focus group discussions and reconnaissance surveys. To identify the post occupancy issues in public housing, in addition to site surveys and interviews of residents and association chairman, interviews of officials at Ahmedabad Urban Development Authority (AUDA) and Gujarat Housing Mission (GHM) was also carried out. To identify the post occupancy issues in private housing, interviews of developers and official at GRIHA Pravesh association chairman (not for Profit Organization working in housing finance), and residents of the site were conducted. Apart from the primary data sources, data is obtained from critical reviews of supply models through literature study.

The data obtained from case studies, are the crux of the paper, since, the objective is largely inclined to the post occupancy issues and challenges. One site study in each model is studied, for which the data is gathered from the individual site visits under respective models and the inferences obtained from primary surveys and critical literature review on housing supply models in Ahmedabad helped in implicating the results to large scale.

Based on the individual model case studies, reasons for the inability to sustain the outreach to intended beneficiaries are analyzed. This is an attempt made to understand the problems at grass root level so that the authority or developers building more low income housing can be better informed and future projects can be more target focused.

The first section features the overview of supply models and case studies elaborating rhetoric and on ground veracities in each model. In this section three major challenges under each model are recognized. In the second section, the reasons for the post occupancy failure are identified by using four point Likert type assessment to analyze the beneficiary satisfaction. Lastly, the third section summarizes the findings and suggests the policy measures that can better tackle the issues at grass root level.

3.   Case studies

The seventh largest metropolis in India, Ahmedabad, hosts population of 55, 70,585(Census, 2011). According to AMC report (AMC, 2013b), the total slum population recorded in Ahmedabad Municipal Corporation (AMC) is around 13% of 2011 AMC population and around 9.8% of households in city are living in dilapidated, congested and temporary structures. In wake to the rapid growth of population, the city of Ahmedabad experienced distinct housing supply models

based on consumer market profile. And in this housing market tussle, public and private actors are the largest facilitators followed by self-help groups, NGOs and Community Based Organizations (CBOs). As mentioned, based on consumer market profile, many models tried to fulfil the dreams of million with vivid approach. One approach under each model is studied and the selection is carried on active functioning of approach under model from 2005. The housing models in Ahmedabad for poor studied in the research are:

- Basic Services for Urban Poor (BSUP) under JnNURM by AMC as a Rehabilitation model
- Basic Services for Urban Poor (BSUP) under JnNURM by AUDA as a Government Subsidized model
- Private/Market based model

3.1 Rhetoric and on ground post occupancy veracities of Housing supply models in Ahmedabad

BSUP mission is adopted under the JnNURM and the main focus of the sub mission was to bring about integrated development of slums with the aim of providing shelter as well as basic minimum services and other civic amenities to the urban poor (Government of India, 2009).

Several attempts were started in late 1960's by markets to supply lower income housing e.g. Parshwanath group, to capture the opportunity in the bottom of the pyramid. Therefore, Market based housing is the other housing model to be part of the research. According to Monitor (2010) the Low-Income Housing (LIH) market in urban India is improving, with the beginnings of a robust supply equation in place for affordable and good quality housing. The study has found more than 25 developers in urban areas across India building multi-family units in the INR 300,000 to 700,000 price range.

3.1.1 Rehabilitation Housing

Even though the two models – Rehabilitation housing and Government Subsidized housing are under the same program i.e. BSUP by JnNURM with similar objectives and eligibility criteria, but they carried distinct approach in case of Ahmedabad. In case of BSUP by AMC, the program served for Project Affected People (PAP) under Sabaramati River Front Development, Bus Rapid Transit System (BRTS), Road Extensions and other development projects of the city. Relocation of slum dwellers under the project affected sites was undertaken, hence it is part of Rehabilitation Model.

Under the program, 20,160 units were sanctioned and spread across 23 sites of city. The site selected under the model is located in Western part of city (Nava Wadaj), comprising 576 units of 25 sq.m carpet area. Out of the total number, around 89% units are occupied. The allotment process was through draw system and relocation of slum dwellers from different project affected sites of city altered the anticipated results of projects. From the semi-structured interviews conducted, the allotted beneficiaries were ready to leave the site after gaining the property rights after 10 continuous years of possession.

3.1.2 Government Subsidized Housing

This was also provided under BSUP program by AUDA for beneficiary urban poor household and not project affected persons (Table 2). The objective was provision of shelter as well as basic minimum services and other civic amenities. With minimum carpet area of 25 sq.m, 13,672 units were sanctioned to AUDA, out of which around 98% are allotted and around 96% units are occupied. From the 14 sites under the model, Chandkedha site constructed in the year 2010, located in North of city is selected (Figure 1). The site constitutes 100% occupancy with total of 480 housing units. But surprisingly 52% is the rental component, against the policy guidelines. From the semi structured interviews conducted,

Table 1: Rhetoric and on ground veracities in Rehabilitation housing

Rehabilitation Housing		
BSUP by AMC		
Parameters	Rhetoric	On ground veracities
Objective	The mission for development of slums in integrated approach, aiming in providing shelter as well as basic minimum services and other civic amenities to the urban poor.	Contrary to the objective of providing in situ basic services to poor households, BSUP projects have funded off-site rehabilitation housing for project affected people
Eligibility criteria	EWS- less than INR 100,000 per annum LIG - INR 100,000 to INR 250,000 per annum	Project affected people, have income within eligibility criteria
Carpet area	EWS-25to 30sq.m LIG-31to 50 sq.m	25 sq.m
Financial share by beneficiary (INR)	Min. 12% cost of dwelling unit borne by beneficiary	Around 26 per cent of the total dwelling unit cost borne by the beneficiary (INR 6700 as down payment + EMI of INR 500 for 10 years)
Property rights	non-transferable lease rights on a housing unit for 10 years, following which, and after the beneficiary contribution has been paid, the slum-dweller will be able to sell the house but only to the government	Occupied by eligible beneficiaries. But from semi structure interviews, chances of leaving the site are maximum after the issuance of tenure rights to beneficiaries
Occupied to constructed percentage	Anticipated 100% occupancy	50% at the city level (AMC, 2013a) and 81% at site level (primary survey)
Challenge	Low occupancy rate	

the household income of units under rental component is on average INR 330,000 per annum, which is higher than the prescribed income under eligibility criteria.

3.1.3 Private/Markets based Housing

In addition to public undertaking supply models, to keep pace with the rapidly growing economy and to capture the potential at bottom of pyramid, private market interventions are effectively participating in provision of affordable housing for EWS and LIG especially in Ahmedabad. Around 10,973 (both One Bedroom Hall Kitchen also called 1 BHK and One Room and Kitchen also called 1RK) units are built for lower income sections in the city (GRIHAPravesh, 2015). The case study selected under the model is Navjivan Housing, constructed by Foliage builders in the year 2010 (Table 3 and Figure 2). The project

Figure 1: Subsidized Housing

built was a mixed housing ranging from 2 BHK to 1 BHK and 1 RK. The minimum carpet area designed for project is 28 sq.m for 1RK and 43 sq.m for 1BHK. From the report by Monitor (2013), households earning INR 10,000 – 25,000 can afford privately built formal housing, costing INR 400,000 to 1,000,000, without any assistance from the Government. In case of Navjivan Housing, over past five years, 1 BHK and 1 RK units are sold with varying price of INR 0. 3 Million to INR 0.7 Million, which is in the affordability limit of lower income sections. But in ground reality, around 40% of rented units are owned by investors and higher income groups and the same are rented out for poor. These speculative investments are minimizing the little options left for poor to purchase houses.

4. Uncertain challenges and changes in expectations

From the case studies, the three post occupancy challenges altering the targeted outreach are (1) Lower occupancy ratio and risk of impoverishment leading for permanent vacation of sites in Rehabilitation Housing (BSUP by AMC). (2) Presence of high rental component against policy guidelines in Government Subsidized Housing (BSUP by AUDA), (3) Speculative investments of higher income group in lower housing units creating artificial shortage of supply for poor in Private/Markets housing model.

4.1 What went wrong?

To identify the backdrop of uncertain challenges leading for inefficient outreach, semi structured interviews were conducted for existing residents/beneficiaries and co-operative association chairman. Since, it was difficult to track the profile of beneficiaries who left, examining the

Table 2: Rhetoric and on ground veracities in Subsidized housing

Subsidized Housing		
BSUP by AUDA		
Parameters	**Rhetoric**	**On ground veracities**
Objective	The mission for development of slums in integrated approach, aiming in providing shelter as well as basic minimum services and other civic amenities to the urban poor.	Open to market, for households with prescribed eligibility criteria
Eligibility criteria	EWS-income less than INR 1,00,000 per annum LIG –income INR 100,000 to INR 250,000 per annum	In contradiction to eligibility criteria, also serves households with average annual household income of INR 330,000 or more
Carpet area	EWS-25to 30sq.m LIG-31to 50 sq.m	25 sq.m
Financial share by beneficiary (INR)	Min. 12% cost of dwelling unit borne by beneficiary	50% of total dwelling unit cost borne by beneficiary (INR 125,000)
Property rights	non-transferable lease rights on a housing unit for 10 years, following which, and after the beneficiary contribution has been paid, the slum-dweller will be able to sell the house but only to the government	52% of rental stock against policy guidelines
Occupied to constructed percentage	Anticipated 100% occupancy	98% at the city level (statistics obtained from AUDA officials) and 96% at site level (primary survey)
Challenge	High share of Rental stock against the policy guidelines to unintended beneficiaries	

Table 3: *Rhetoric and on ground veracities in Private Housing Model*

Private based Housing		
Private market		
Parameters	**Rhetoric**	**On ground veracities**
Objective	As Corporate Social Responsibility and also to capture the large opportunity in the BOP	To capitalize the necessities in bottom of pyramid by meeting affordable standards of lower income sections (only LIG are catered and not EWS)
Eligibility criteria	Aimed to target lower income sections	1 RK and 1 BHK constructed exclusively for lower income sections are also sold to higher income consumer profiles. Around 40% of rented units are owned by investors and higher income groups and the same are rented out for poor.
Carpet area	27.7 sq.m	27.7 sq.m
Financial share	Total price of unit	Total price of unit
Property rights	owned by beneficiary	Owned by consumer who purchased.
Occupied to constructed percentage	Anticipated 100% occupancy	Only 70% occupied at site level (primary survey).
Challenge	Lower income housing units owned by high income group resulting artificial shortage of supply for poor	

Figure 2: *Private Housing Model*

views and satisfaction of current beneficiaries/residents helped in knowing the preferences and issues related to models leading to uncertain outcomes. Firstly, reasons to shift to current allotted or chosen location is assessed. Secondly, percentage households planning to shift is measured.

From the semi structured interviews conducted at household level, the beneficiaries under rehabilitation model shifted to allotted DU due to lack of choice (see Figure3). Whereas, the preference to purchase the unit in private model is largely due to location followed by availability of cheaper house with respect to services offered. Incase of subsidized model, the approach of BSUP by AUDA stood peculiar. Even being draw system, if at all not satisfied with the allotment, an individual can withdraw from registration.

From figure 4, large share of beneficiaries in rehabilitation and subsidized model want to shift from allotted location after issuance of property rights . The case of Rehabilitation model in Ahmedabad showcases 100% chances of intended beneficiaries to leave the allotted units. This evidently illustrate the argument made by De Soto(2000) on importance of tenure security and legality among lower income sections for improved housing conditions. In the private model, in a period of 5 to 10 years, percentage of households shifting is recorded the maximum .

The major issues leading the residents to vacate the allotted units in

the Rehabilitation model is the dissatisfaction rate of beneficiaries due to loss of employment followed by poor infrastructure (Figure 5). Interestingly, even though started five years ago, weaker community relations still exist and are reported one of the reasons for dissatisfaction among the residents. Due to this, the beneficiaries could neither develop good community relations nor create new means of livelihood by promoting community relationships. The social relations also led to ineffective functioning of Resident Welfare Association (RWA) which ended in least maintenance of neighborhood.
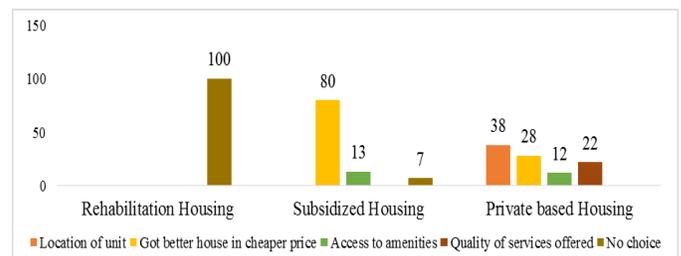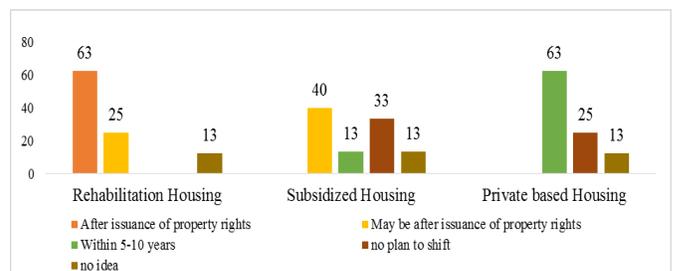

Figure 3: *Reasons for shifting to current location*

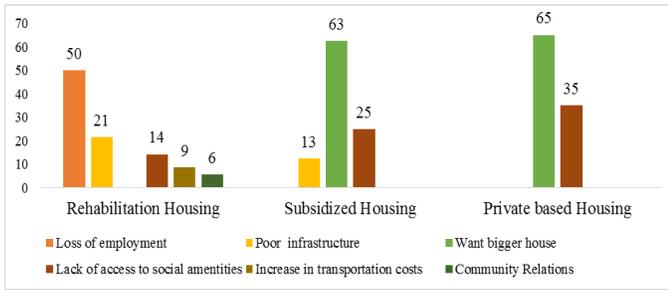**Figure 4:** *Percentage of Households planning to shift*

Figure 5: Reasons to shift from current location

Fascinatingly, the reasons in other models are majorly the need of bigger house. The statistics clearly shows despite beneficiaries planning to shift, the reason behind subsidized model and private approach are due to improvement in quality of life of household. Whereas, on the other hand, the rehabilitation model catering to beneficiaries with similar eligibility criteria failed in fulfilling the satisfaction of users. The same is the reason reported in private based housing, where the increase in vertical growth of household led to preference for a bigger house. But the lack of social amenities especially higher educational facilities are also the reason for shifting in private based model.

From the reasons to shift from current location, the level of quality from site survey are detailed out in the Table 4 in a Likert scale of 4.

5. Results and Discussions

The three unique challenges identified in the initial stages of paper are discussed by relating to the results from analysis and to the interviews of the officials interviewed during primary survey. Albeit the objective to address the challenges causing inability to sustain the outreach being the same, distinct approach of three models in supply of units addressed distinct challenges with varied issues in the ground reality.

(a)   Lower occupancy ratio and risk of impoverishment leading for permanent vacation of sites in Rehabilitation housing.

The failure of rehabilitation are caused because of the imprudent attempts which largely 'resettled rather than rehabilitated' the slum dwellers. In the due process, the risk of impoverishment increased among the residents with lack of access to employment opportunities and urban services. This further created a tendency for the displaced to leave the allotted location and return back to the squatter settlements after receiving the tenure status This process of leaving the allotted units vacant or purposeless are resulting in low occupancy ratio of Rehabilitation sites which has also been shown by Patel in case of Ahmedabad (Patel et al., 2015). Research on resettlement of slum dwellers by Patel (2014) showcases that slum dwellers resettled on-site were substantially less impoverished than those resettled off-site. "Despite a large body of evidence on the impoverishment of displacees, there was little in BSUP policy that specifically acknowledged or targeted the various components of impoverishment" (Patel, 2014). Unless the problem is resolved at grass root level, the efforts of building low income housing will never end and the process remains futile by summing vacant deprived housing units in the city.

(b)   Presence of high rental component against policy guidelines in Subsidized Housing (BSUP by AUDA).

If the impending impoverishment was the reason for not occupying the allotted unit by the beneficiary in the rehabilitation model, the vertical growth and lack of incremental addition opportunity in the unit design (desire for bigger house) was the reason for the renting out of the allotted unit by beneficiary in the subsidized model. This explicitly shows that there is definite improvement in quality of life of allotted residents leading them to desire for bigger house. On brighter side improvement in quality of life indicates the success of model but on darker side the reluctance to leave the property rights is tending the

Table 4: Assessment of satisfaction rate of each model

Models	Rehabilitation housing	Subsidized Housing	Private based Housing
Approach	BSUP by AMC	BSUP by AUDA	Private developer
Choice of Location	Poor	Average	Good
Infrastructure			
Drinking water facility	Bad	Average	Good
Waste management	Very bad	Average	good
Sewage	Average	Good	Good
Power	Good	Good	Good
Housing condition	Bad	Average	Good
Overall quality of services	Bad	Average	Good
Access to social amenities			
Public transport	Within 1KM	Within 1KM	Within 2KM
Primary or secondary school	Within 2KM	Within 3KM	Within 3KM
Hospital	More than 3KM	More than 3KM	Within 3KM
Overall access to amenities	Average	Average	Average
Access to employment opportunities	Very Bad (immensely not satisfied)	Average (satisfied)	Good (Located in periphery but presence of Industrial estates satisfies the users)
Community Relations	Very bad	Good	Good
Community Maintenance	Bad	Average	Good
Overall performance of model	Bad	Average	Good

allottees to undergo malpractices and rent the allotted unit to ineligible user. The interesting fact emerging from our research is that the allotted households in the site are earning an average monthly income between INR 20,000 to INR 25,000 whereas the same for of the tenants is an average of INR 30,000 per month. When enquired regarding the profile of owners who rented out the allotted units RWA chairman's response was, "largely the income of families who were allotted are able to afford far better house in the city than the allotted unit". This indicates that either malpractice of allowing higher income group in the allotment process by the authority or an improvement in quality of life of the households post occupancy leading to the allottees rent it out to non-beneficiaries must have occurred. To support the former argument, tenants were questioned about the identity of the original allottees or the formal owners. But the responders were highly reluctant to disclose indicating malpractice. Whatever being the issue the challenge of high rental stock against policy guidelines is the same. The subsidized housing model case of Ahmedabad is a clear example where the authority accomplished to moderately satisfy the needs of beneficiaries but, improper post occupancy vigilance led the beneficiaries to rent out the unit to the unintended beneficiaries, altering the desired purpose of model.

(c) Speculative investments of higher income group in lower housing units creating artificial shortage of supply for poor in Private / Markets based housing model.

In a free market tussle, highest bidder is always the winner. This behavioral biases of investors largely cause speculative investments in private model. From the primary survey, higher rate of satisfaction towards quality of services is noticed from end users in private model. Despite this, only around 70% of occupancy is recorded in private housing and also the share of lower income groups residing is less. Inhere also, in addition to interviews of residents, the RWA chairperson and committee members were also interviewed. The interviews revealed that one in fifteen units of 1RK and 1BHK were used for non-

residential purposes like household industries, commercial use, office use etc. And in the total units, a substantial 40% units are owned by investors/developers themselves and rented for low income sections. To answer where it went wrong, the geographical locations of private projects are firstly identified. Being located in the periphery of city, with high transportation costs, lower income households are reluctant to purchase the housing unit by markets unless and until they are working in the nearby locality.

One of the astonishing fact evident in Private based housing and not evident in other models, was backing out form purchase. About 43% of total clients backed out from purchasing unit after initial booking due to inability to afford down payment (GRIHAPravesh, 2015). In all the three models, the income affordability as stated by Gan and Hill (2008) as house price to income ratio is within the Indian affordable housing standards, which is 4 as per Task force (MHUPA, 2012b). But the purchase affordability, households gathering enough funds to purchase house (Gan and Hill, 2008) is not met in case of Private housing. The other finding (GRIHA Pravesh, 2015) is that a household earning monthly income less than INR10,000 cannot meet repayment affordability.

Firstly, the geographical locations are confining the options of purchasing house for poor in private model. Secondly, the low purchase affordability of the clients are leading the stock to lie vacant and owned by investors themselves. And in due process, with increase in urban sprawl, the demand of sites in periphery increases leading the poor then to rent the house since by then, the prices would have skyrocketed for urban poor to purchase.

One of the major reasons for large extent of demand-supply gap is the inability to purchase the unit which is also called the affordability level. And affordability is directly associated with the income levels of buyer. Even though large demand is to be met in lower sections of society, unless and until there is enough purchasing power ability, the supply

Table 5: Overview of Post occupancy challenges in different models

Model	Sub-Category	Problems in post-occupancy from end user perspective	Challenges	Suggested Measures
Public Undertaking	Rehabilitation Model	Loss of Employment	Lower occupancy ratio and risk of impoverishment leading for permanent vacancy of units.	Involving the PAP's in decision making, ensuring adequate urban services within accessible limits through community participation or PPP and constant scrutiny of formal sector in the post occupancy stage to curb hidden transactions and corrupt practices
		Lack of access to social amenities (education or health)		
		Poor quality of services		
		Increase in Transportation costs		
		Community Relations		
	Subsidized model	Want bigger house	Presence of high share of rental component	Ensuring adequate urban services within accessible limits through community participation or PPP and constant scrutiny of formal sector in the post occupancy stage to curb hidden transactions and corrupt practices
		Lack of access to social amenities (education or health)		
		Poor quality of services		
Private undertaking	Market based approach	Geographical location- located in periphery of city	Speculative investments of higher income group in lower housing units creating artificial shortage of supply for poor in Private housing model.	Government support in informal sector to restrict the speculative investments and catering the supply for effective demand through fostering public private partnerships.
		Inability to afford down payment		

side bar always remains low.

Table 5 showcases the measures to overcome the challenges leading for inability to sustain effective outreach to intended beneficiaries.

6. Conclusions and Recommendations

One of the major reasons for unending housing shortage in Indian housing market is the inability to forecast the uncertain challenges of formulated policies or projects. Certainly, even living in an orderly development, it is never easy to predict the uncertain outcomes. But exclusion of beneficiaries in crucial stage of planning process, relocation process, will never result in planned and desired outputs for them. Since it was never intentionally planned for them, rather in the name of social cause and development, they are forcefully relocated in distress. The best example is showcased in the paper under Rehabilitation model, where the beneficiaries, are ready to leave the allotted site and move back to slums, after the issuance of property rights. All these imprudent efforts by authority will never suffice the problem of homeless but rather worsen the urban fabric more with squatter settlements on one hand and old deteriorated buildings lying vacant on the other hand. To achieve end user satisfaction and to mitigate the risk of impoverishment, government must thoughtfully prevent the problem in the initial levels of allotment by ensuring adequate socio-economic facilities in the locality. To fulfil a basic need of millions, aspirations associated with challenges and opportunities of key market players are utmost necessary. Housing supply responsiveness for lower income sections can be improved by active participation of them in decision making process right from formulation to design, implementation and post occupancy.

However offering better quality of service is not sufficient to ensure sustained outreach as evidently seen in government subsidized model. Despite low satisfaction rate with quality of services, large share of responses showcased improved quality of life compared to previous location. But on darker side, the improvement in quality of life also leads to renting out by the allottees against the policy guidelines. This shows, ensuring adequate services is not the alone measure to curb the problem, but for sustaining the targeted outreach, proper post occupancy measures with constant vigilance are mandatory to curb hidden transactions and corrupt practices.

With pride of ownership and fulfilling dreams of lower income sections, private based model proved better performance rate than the other two. But the longer commuting cost and higher cost of living are pulling the large sections of poor from purchasing house under private model, despite evidence of improved quality of life of existing users. Curbing the challenge of speculative investments is a difficult but imperative task. But government support in obtaining developable land for markets can improve the results since, land cost contributes highest to the total price of unit in private model. This can improve the purchasing affordability and with access to developable land, beneficiary or user can minimize the transportation costs. Apart from public private partnerships, the lack of awareness regarding private projects is also major cause for it to lag behind. Market tie up with not for profit organizations like GRIHA Pravesh or NGOs can create awareness of the potentials of model to intended beneficiaries.

The efforts of housing models for poor with skyrocketed urban land prices, long approval process takes ages to resolve the problem of housing shortage in developing nations. And with urbanization trends, affordable housing will indeed become a serious issue and will continue to plague the lower income sections. The efforts for sustaining the targeted outreach can improve the results and can minimize the shortage effectively. Such attempts for sustaining the positive results need a thoughtful approach, rather than naïve optimism. In addition to foreseen challenges, one must be open to the possibility of uncertain challenges before formulating any policies or projects. Then only, envisaged growth can be sustained socially and economically.

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