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Affordable housing: An academic perspective on policy and practice in India

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Abstract Affordable housing is a problem that many countries are taking stock of, world over. In India, the problem is much more stark with an estimated shortage of around 18 million houses, with 99% of this in the economically weaker sections of society. This paper sets out the definitions of affordable housing in India and across the world; the issues with the various definitions of affordable housing; the institutions and agencies responsible for formulating and implementing affordable housing policies in the state; the opportunities and challenges in affordable housing as well as a discussion on learnings from international experience in this sector.

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Introduction

Affordable housing is fast taking centre stage internationally as well as in the national agenda in India. With housing recognized as a basic need, governments at every level are discussing ways and means to provide access to housing for their citizenry. The importance of affordable housing is neatly captured in the following statement by the Affordable Housing Institute quoting Rakesh Mohan, Deputy

Governor of the RBI, in 2007 "...future national competitiveness and economic success will depend on the comparative efficiency of cities. Because housing is where jobs go to sleep at night, the quantity, quality, availability and affordability of housing becomes a key component in national economic competitiveness".²

The role and function of housing is multifaceted – housing choices impact access to infrastructure, employment, household wealth, health, education, poverty levels, maternal and child mortality, women's participation in workforce, and many other wellbeing indicators. As India

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¹ The views expressed by the author are personal and academic in nature.

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² "The growing crisis of affordable housing in MENA" (2012) available at <http://www.affordablehousinginstitute.org/wp-content/uploads/2012/10/The-Growing-Crisis-of-Affordable-Housing-in-the-MENA-by-EY-and-AHI.pdf>, p. 6.

seeks to improve its living conditions on a large scale, access to affordable housing becomes a major stumbling block for its citizens.

This article first examines the issue of affordable housing (AH) and sets the context for the panel discussion which follows on the state of the AH market in India and policy interventions required to improve it. The current note lays out the academic perspective on AH: first, by defining the term affordable housing; second, by describing the need for focus on AH; third, by analysing the institutional structure of AH delivery in India. The later part of this note analyses policy responses by various governments, international experience, and lacunae that still exist.

Defining affordable housing

Before framing an affordable housing policy, it is important to delineate the contours of this problem by defining the term “affordable housing”. Defining AH is also important to create targeted policies aimed at making financing more accessible, providing interest rate subsidies, or favourable terms on par with infrastructure financing.

Internationally, housing affordability is defined in multiple ways. One of the most commonly accepted definitions of affordability refers to housing affordability which is taken as a measure of expenditure on housing to income of the household. This is also accepted by the Indian Government, which states “Affordable housing refers to any housing that meets some form of affordability criterion, which could be income level of the family, size of the dwelling unit or affordability in terms of EMI size or ratio of house price to annual income” (High Level Task Force on Affordable Housing for All, December 2008, p. 7).

The *Ministry of Housing and Urban Poverty Alleviation* (MoHUPA) in its 2011 report takes note of both income and size criteria to define the concept (Table 1). Multiple studies in the Indian context have also suggested other metrics of affordability.³

Housing affordability is a multi-faceted measure, and while affordability is commonly defined using the expenditure method, there are other perspectives to affordability as well, as discussed in the next sections.

Demand for affordable housing in India

The demand drivers for AH in India are several. First is the progressive urbanization, going hand in hand with a growing urban population, which increased from 109 million in 1971 to 377 million in 2011, and is projected to grow to 600 million by 2030. The consequence of the growing concentration of people in urban spaces is felt in land and housing shortages and congested transit, besides the stress on basic amenities such as water, power, and lung space. The Ministry of Housing estimated a housing shortage of 18.78 million houses during the 12th plan period, with 99 percent in the economically weaker and lower income groups.

³ Studies by Monitor Inclusive Markets (Deloitte), KPMG, JLL, Knight Frank, etc define affordable housing through multiple parameters.

Slums and informal tenements are estimated at 65 million as per Census 2011.

Second, alongside the growth of the urban population, rising incomes have led to the expansion of the middle class. This has led to a spike in demand for housing that is “affordable” but includes basic amenities.

Third, the real estate sector is a major component of the Indian economy. It is estimated that the real estate sector contributed to 6.3% of the GDP in 2013–14, at an estimated 3.7 lakh crores and employed about 7.6 million people (CREDAI, 2013) Housing is the largest component of the financial as well as the construction sector (High Level Task Force on Affordable Housing for All, December 2008, p. 6). A thrust on AH will not only lead to better quality of life, but also significantly provide a boost to the GDP of the country.

Impact of affordable housing on households – international experience

Affordable housing provisions are important at the national level, the city level, as well as the individual level. Cities are engines of economic growth, and housing that can be afforded by the median wage-earner is a pre-requisite for the city to attract and retain the labour force required to ensure its economic success. From a national perspective, AH is one of the indicators of balanced growth in the country. When housing becomes unaffordable, there is either a bubble in the housing market with serious repercussions to economic policy, or other imbalances in the economy.

Affordable housing has multiple linkages to other aspects of the individual’s well-being. Mueller and Tighe (2007) consider evidence on the relationship between AH and benefits to the larger community in education and health. Similar to Lubell, Crain, and Cohen (2007), they find there is a positive externality to health due to AH provisions. Affordable housing has led to better access to health care, to education, and to perceived control and life-satisfaction (Rohe & Stegman, 1994). Affordable housing also serves to reduce crime (Horner, 2009), and has significant wealth effects on the residents due to employment stability (Berry, 2003; Rohe & Stewart, 1996).

Institutional framework for affordable housing delivery in India

Public sector institutions and practice

In India, AH is a term largely used in the urban context. At the national level, the rural housing sector falls within the purview of the Ministry of Rural Development, while housing and human settlements in urban areas is the jurisdiction of the Ministry of Housing and Urban Poverty Alleviation. It is the latter ministry that has spearheaded AH as a concept and policy.

The policy framework for affordable housing is provided by the National Urban Housing & Habitat Policy (NUHHP-2007), along with the Jawaharlal Nehru National Urban Renewal Mission (JNNURM-2005), Basic Services for the Urban Poor (BSUP), Integrated Housing & Slum Development Programme (IHSDP) and the Rajiv Awas Yojana. The

Table 1 Ministry of Housing and Urban Poverty Alleviation criteria for affordable housing.

	Size	EMI or rent
EWS	Minimum of 300 sq ft super built up area Minimum of 269 sq ft (25 sq m) carpet area	Not exceeding 30–40% gross monthly income of buyer
LIG	Minimum of 500 sq ft super built up area Maximum of 517 sq ft (48 sq m) carpet area	
MIG	600–1200 sq ft super built up area Maximum of 861 sq ft (80 sq m) carpet area	

EWS: economically weaker sections; LIG: low income group; MIG: middle income group.

Source: [MoHUPA, 2011](#)

NUHHP 2007 lists a number of objectives that include urban planning, land availability, special provisions for women, public private partnerships, management information systems and so on ([MoHUPA, 2007](#)). With respect to AH, it aims to: accelerate the pace of development of housing and related infrastructure; create adequate rental and ownership housing stock while improving affordability through capital or interest subsidies; and use technology to modernize the housing sector for energy and cost efficiency, productivity and quality, green and intelligent building, and mitigate disaster impacts.

The JNNURM 2005 was launched with the objective of encouraging and expediting urban reform, and includes within its ambit construction of 1.5 million houses for the urban poor in 65 mission cities between 2005 and 2012. The BSUP is managed by the Ministry of Urban Development, and seeks to provide seven entitlements: security of tenure, AH, water, sanitation, health, education and social security to low income segments in 65 mission cities. The IHSDP covers those cities/towns that are not covered by BSUP, and conceives of an 80:20 sharing ratio between the national and state governments/urban local bodies (ULBs)/beneficiaries.

Private sector players and practice

Affordable housing has traditionally been the purview of the state: it is only recently that the private sector has entered into building houses for the lower-middle and middle-class segments. Several factors propelled this development. The demand slowdown of 2008–09 in the high-end residential real estate sector led to exploration of diversification options for developers in the affordable segment.

Easier availability of land in the suburban areas along with infrastructural connectivity, availability of facilitating and financing agencies such as the National Housing Bank, international developmental organizations, international NGOs, micro finance institutions and private equity players, economies of scale and first mover advantages have also propelled this interest. From 2009 onwards, real estate developers have launched projects across Indian cities in locations which are away from the core central business/secondary business districts where land prices are affordable. Such targeted growth is seen in over 15 projects including Karjat, Palghar and Boisar in Mumbai; Narol and Vatwa in Ahmadabad; and Anekal in Bangalore. The more

prominent developers include Tata Housing (Shubh Griha), VBHC, Foliage, DBS Affordable Home, Nirman Group, HDIL, TVS Housing, S.Raheja, Mahindra Lifespaces and Usha Breco Realty ([Monitor Deloitte, 2013](#)). Typically, the projects are located 20–25 km from the city centre, cover 15–35 acres and have 1500–3500 units. The projects are characterized by limited options, closeness to industrial or commercial hubs, reduced area, low construction cost, shorter period of construction and provision of basic social amenities. The pre-tax internal rate of returns (IRRs) in a low cost housing project can range from 40 to 45 percent with gross profit margins of 15–20 percent, which is slightly reduced compared to the 30–40 percent margins available in high-end real estate projects. While there are instances of several AH projects that were sold out within days or weeks of launch, unavailability of suitable land, low value of returns, and scarce financing make it imperative for developers to shorten construction time, lower cost, de risk from land acquisition costs and adopt a working capital model with assured and faster cash inflows ([Jones Long Laselle, 2012](#)).

Critical issues in the affordable housing sector

Scarcity of land

The high population density, rapid urbanization, and poorly conceived regulations have created shortage in land parcels capable of development. This is exacerbated by excessive controls over central districts of cities and difficulties in land recycling, which results in a push toward the periphery. Land acquisition has been a thorny issue, giving rise to land mafias and illegal encroachments, and reducing availability of land at an affordable price.

Scarcity of marketable land parcels

Large tracts of centrally located urban land are owned by public entities such as the railways, ports, and defence authorities. These are non-marketable pockets, and lend themselves to the proliferation of slums and squatter settlements as the authorities are often unable to monitor their holdings. Further, scattered and poorly planned settlements make it difficult to provide land for mass housing. Property buyers take many factors other than project quality and cost into consideration, such as basic utilities, connectivity, infrastructure and so on. Thus AH demands

adequate supply of well-serviced land and this in turn influences prices and willingness to pay.

Titling issues

As of now, India lacks a robust system to protect land rights. There are two aspects to land title: first, a formal recognition of property rights by the state through a system of titles; and second, facilitation by the state, of efficient trade in rights, through a process of registration. Both of these elements exist in India, but in incomplete form. First, not all land transactions require registration, for example land acquisition, court decrees, mortgages, agreements and so on. Second, while Indian law requires compulsory registration of land sale, the registration authority is not mandated to verify history or ownership; thus it is the transaction and not the title that is registered.

Rising costs

Both land and construction costs have increased, compounded by price appreciation of construction materials and labour. Financing AH is constrained because of different construction indices and incomes across the country. From the customer's angle, obtaining finance is difficult even if the customers have regular incomes when they are employed in the unorganized sector or lack income proof as required in the loan process.

Regulatory constraints

Project sanctions can take several years, and need to be cleared by as many as forty departments across the national and sub-national levels, including the environment, fire, revenue and water departments, the traffic police and so on. The consequent time and transaction costs deter many entrepreneurs. Further, lack of transparent and clear regulation aggravates the situation. For example, building bye laws, rules for floor space index, and zoning and development plans of urban local bodies often lack clarity and there are overlapping guidelines.

International evidence on affordability

International evidence on AH is centred on two broad themes: a) global definitions of affordability, and b) international best practices and policy interventions in AH.

Definitions of affordability

1. The expenditure approach to housing affordability considers whether households are able to afford a house based on their income levels. The metrics vary depending on whether households consume housing as renters or purchase housing as an investment and consumption good.

Rental affordability: This measure historically was based on affordability based on "housing consumption" and was introduced in its earliest form by the United States National Housing Act of 1937, where a measure of housing rents to income levels of households was used.

The Brooke Amendment to the Housing and Urban Development Act (1968) in the US, revised in 1981, recommends a figure of 30% as the maximum proportion of income available for payment towards rent.

Purchase affordability: Another measure of housing affordability is "purchase affordability" which measures whether households are able to fund the purchase of their houses. Typically, purchase affordability is measured as a ratio of housing costs (or monthly mortgage payments) to monthly income of the household.

Purchase affordability is highly influenced by the ability to access mortgage and other home financing options. The tenure of the mortgage and the cost of the housing structure influence purchase affordability.

Rental affordability and purchase affordability assume that housing and basic non-housing goods are merit goods, having a socially desirable minimum (Hancock, 1993). Stone (1993) defines affordability as the ability of households to pay the costs of housing without imposing constraints on living costs. Freeman, Chaplin, and Whitehead (1997) uses a relative measure of housing expenditure and household income, and provides a theoretical basis for relative or absolute measures of affordability based on the ratio approach of housing expenditure to household income.

2. Some researchers (Gan & Hill, 2009) also calculate the *repayment affordability measure* which acknowledges that while housing may be affordable at the time of purchase, the repayments towards housing may become unaffordable subsequently due to market and interest rate risk.

A related concept is that of affordability through mortgage provisions. Affordability increases through access to mortgage financing. The lack of documentation for meeting know your customer (KYC) norms, inability to provide salary slips and show income proof, inadequate information on mortgage choices, and mistrust of the banking system are all documented as reasons for the low-income group not accessing mortgages (Lalwani, Merchant, & Venkatachalam, 2010).

3. A third measure is the H+T or location affordability which takes into account the transportation costs of housing choice. Affordable housing is a trade-off between land costs, which are lower in the outskirts, and the transportation costs to the nearest employment centre, which typically increases as distance from city centre increases. As housing gets pushed out to the periphery, land costs are reduced and housing per se is more affordable, but transportation costs increase and there is a substitution between transportation and housing costs. The H+T measure of affordability addresses housing affordability from a total cost perspective.
4. Affordable + livability: Affordable livability refers to the notion that affordable structures should be supported by availability of hard infrastructure (physical infrastructure) such as water, electricity, communication, and transportation, as well as social infrastructure such as schools, hospitals, police station, governance mechanisms, and so on. Community characteristics as well as amenities combine to provide affordable livability.

A case in point is that of slum dwellers who are relocated to housing in areas where employment is scarce and/or infrastructure is poor. In these cases, the livability of the house is compromised, and beneficiaries either refuse to move, or let out the affordable houses that have been constructed for them. For instance, slum dwellers in Kolkata refused to move since they had no place for livestock and poultry in their newly constructed apartments (Kundu, 2003).

5. Total cost of housing affordability: Costs of housing include ongoing/routine maintenance costs as well as payments for amenities such as water, power etc. Total costs take into account purchase costs as well as operational costs.

A recurring issue among low income group dwellers who move into AH, typically apartments, built as part of redevelopment efforts, is the cost of maintenance, property tax and other related costs. Transaction costs such as stamp duty, holding costs, and so on are perceived to be higher on formal housing.

If these elements are pieced together, affordability becomes a single static figure that does not account for the variations in land prices across cities, nor does it take into account the variations in income and expenditure (the actual affordability) of the population living in that specific city. This begs the need for newer measures which go beyond the affordability ratio and provide perspectives on people's willingness to consume housing as a function of their location choice.

These complexities point to the need for a comprehensive and holistic concept of AH. The inherent complexity of the term is brought out in the Habitat Agenda definition: "Adequate shelter means more than a roof over one's head: It also means adequate privacy; adequate space; physical accessibility; adequate security; adequate lighting, heating and ventilation; adequate basic infrastructure – all of which should be available at affordable cost" in (High Level Task Force on Affordable Housing for All, December 2008, p. 7).

However, these issues still need to be debated and discussed in India, and research gaps need to be addressed. Though the house price to income ratio is mandated by the MoHUPA to be 30–40% there is no evidence to show whether the number is a valid one. Arriving at the right expenditure level would require mining existing data to enhance evidence-based knowledge of the housing sector based on fieldwork, and further research is required to understand the determinants of supply and demand for AH. This is a research gap on AH in India.

Best practices in affordable housing delivery

Literature differentiates between social housing, which is provided by governments to the economically weaker sections of society, and AH, which is typically built by not-for-profit or private players with government subsidies. Studies from Australia (Milligan, Gurrán, Lawson, Phibbs, & Phillips, 2009, for example) suggest that in the face of declining national funding for housing policies, supply-side policies aimed at incentivizing private players to build housing is the need of the hour. A large body of work on AH focuses on

affordable private housing through a structure of subsidies and financing options (Holmans, Scanlon, & Whitehead, 2002), creating optimal supply side levers along with favourable revenue measures. While governments are focussed on creating viable social housing for at-risk population such as children, senior citizens, vulnerable populations and the disabled, private developers and not-for-profits obtain a range of subsidies for providing AH. Subsidies for AH fall in the planning and land use regime or take the form of financial incentive mechanisms. In planning subsidies, AH developers may be provided bonus development entitlements, concessions on development standards, reduced fees, or reduced regulatory compliance (and therefore costs of regulation through reduction of red-tape etc.). Milligan (2009, pp 28) provides a comprehensive assessment of financing mechanisms for affordable housing for both buyers and sellers. Buyers' incentives include discounted prices, interest rate subsidies, and public loans at favourable terms (Hegedüs & Teller, 2004). Providers of AH obtain cheaper loans, specialized instruments for investing in AH and a raft of tax incentives.

Globally, AH initiatives fall into two broad strategic approaches. Countries such as Singapore, the Netherlands, Sweden and Denmark follow the universal approach, whereby the entire population is provided with acceptable and affordable housing. More common is the targeted approach of countries like Canada, Malaysia, USA and most of the EU, wherein weaker sections are the focus so that they would not get excluded from the housing market. Both supply side (public housing or assistance to developers) and demand side subsidies (periodic cash allowances or capital grants to support housing costs) are common practice; ranging from subsidized rentals in the Netherlands to subsidized ownership in Spain. Many countries combine rental and ownership schemes. Private participation is encouraged in various ways: density bonuses are provided in the US, mixed use housing in the UK, and fee waivers and fast tracking procedures in Malaysia and Canada. Malaysia has also established public-private partnerships (PPPs) with role definitions for the public (land and procedures) and private players (finance and execution). California has emerged as a leading state in the US with a comprehensive legislative package for low income housing with inclusionary zoning. Singapore and Hong Kong have experimented successfully with commercial-low cost cross subsidization.

The road ahead: challenges and potential

Developing AH on a large scale is the greatest challenge in urban India today, promising a solution to the proliferation of slums, unorganized real estate development, unplanned growth and transit congestion. It is vital that certain critical issues are addressed urgently to make AH a possibility.

On the demand side, the critical issues include identification of the right clientele, increasing reach through micro mortgage financing mechanisms and self help groups, and flexible paying mechanisms to cater to variable income flows.

On the supply side, incentivizing through policy (extra floor space index, free sale areas and so on), schemes for slum redevelopment and rehabilitation, ensuring adequate availability of land, streamlining of land records, inclusion

of mass housing zones in comprehensive development plans (CDPs), encouragement to private participation and partnership, and single window clearance for smaller projects on the lines of large township projects are necessary. Developers need to focus on the marketability of small formats with reduced down payments. Success in the AH segment demands management of project cost and timelines so as to prevent cost-time overruns. Inadequate infrastructure is a challenge. As developments increasingly tend for suburban and semi urban locations, the concomitant development of connectivity and access becomes vital.

The state has a special responsibility to create an enabling environment for AH developers, not necessarily through subsidies but also by fast tracking approval processes, demystifying land laws, deconstructing the financing and land assembling processes, and through innovative mechanisms such as earmarking areas for development, encouraging public private partnerships, and rethinking floor space index (FSI) limits.

In respect of subsidies, while continuation of targeted subsidies to low income segments is advisable, in addition, enabling low cost credit to low income developers and housing finance companies (HFCs) would be beneficial.

A robust industry calls for better customer education, more transparency, and better communication. Industry associations, international development agencies, and practitioners should collaborate periodically to monitor the market, disseminate information, and provide feedback to both industry and the general public.

Affordable housing thus calls for collaborative, multi pronged and concerted effort from all stakeholders.

The panel discussion that follows touches upon the practitioners' experiences with affordable housing delivery. The discussion revolves around the definitions of affordable housing, the difficulties faced by developers in providing affordable housing, the adequacy of the nature and quantum of subsidies available for affordable housing, and the policy interventions needed to make the affordable housing market dynamic and responsive. The role of the state and the governance mechanism, and the regulatory bottlenecks that developers face are dealt with in detail. Practitioners also shed light on their experience of marketing affordable homes to the public, and the issues buyers face in owning, renting, and augmenting their affordable homes.

Policy imperatives to promote innovation along the value chain for housing – improving affordability, transparency, sustainability and growth: Discussion⁴

⁴ The panel discussion was part of the Eighth Annual International Conference on Public Policy and Management held in August 2013 at the Indian Institute of Management Bangalore. This part of the article carries edited excerpts of the presentations made at the panel discussion. The views expressed by the panellists are personal and academic in nature and not necessarily the views of their organizations. The presentations of the panellists were made in an academic context in an academic institution.

Panellists

V Balasubramanian former Additional Chief Secretary, Government of Karnataka, and currently Chairman, Centre for Policy and Practices.

P G Ganapathy, Senior Consultant and Advisor, the Indian Institute of Human Settlements (Moderator).

Vikram Jain, Monitor Inclusive Markets, Monitor Deloitte.

S.V. Kamath, General Manager, Projects, Housing and Urban Development Corporation (HUDCO), Bangalore.

Rajesh Krishnan, Founder and CEO, Brick Eagle.

Pramod Kumar, Director, Value & Budget Housing Corporation Pvt. Ltd.

Ashok Lall, of Ashok B Lall Architects, New Delhi.

Srinath Mukherji, Management Consultant, Co-founder of India Shelter Finance Corporation.

The discussion centred around three critical points: land, finance, and urban utilities/amenities.

V Balasubramanian

Rural housing

I was struck by a point made in the morning's session, where according to the Directorate of Census, 69 percent of India's population is in rural areas and 31 percent in urban areas. However, we seem to be concerned largely with urban housing affordability. Migration from rural areas to urban areas is continuing in a slow manner, but because of population increase even in rural areas at around 1.8 percent or 2 percent, this percentage difference will continue. A mention was made of the architect Laurie Baker in the morning's session – we would do well to look at his recommendations for rural housing. Rural housing, and affordable rural housing in particular, is a very important area. We need to look into the needs of 69 percent of the rural population.

The criticality of water supply

The second point I want to make is with reference to Bangalore, where it is said that a large number of houses and apartments are vacant because there are no takers and that they have largely been constructed for reasons of speculation. However, their not being occupied could be for an entirely different reason – the lack of infrastructure, the most important of which is water. Unlike other cities, Bangalore is situated on top of a rock with no perennial river source. In Bangalore, the per capita per day availability of water is about 75–80 L, whereas the Government of India norm is 150 L per capita per day. This land was considered to be the land of a thousand lakes by the East India Company when the British first came. Now, these lakes have been contaminated with the sewage that is flowing into them. And sewage water does not simply stand, it keeps percolating. There are around four lakh bore wells which pump out around 3.7 times more water than the rain water recharge. Therefore, the wells run the risk of drying up in a few years time. This is the reason behind the water

levels going down. The vacuum which is being created is filled up by the sewage water percolating from these lakes. Around 59 percent of the water supply in Bangalore is not potable; around 18 percent of the water supply in Bangalore is affected by *Escherichia coli* (*E. coli*). Awareness about these matters is low. These things must be considered before increasing the housing capacity of Bangalore.

Planning of Greater Bangalore

There is still a lot of land in Bangalore under the government. The Bruhat Bangalore Mahanagara Palike (BBMP) covers about 772 sq km, the Bangalore Development Authority (BDA) covers about 1300 sq km, while Bangalore urban district is about 2194 sq km. About 1,50,000 acres of government land is still available as the Bangalore Metropolitan Regional Development Authority area. This land could be used to create a master plan for housing and small industries in Bangalore. There are around 8000 tanks and lakes in this area and since they are outside Bangalore, they have not been contaminated. They need to be preserved, in which case housing in this area of Greater Bangalore of about 8000 sq km can be very well planned.

Vikram Jain

Monitor Inclusive Markets in the affordable housing sector

Monitor Inclusive Markets has been working on loans for low income housing to help developers get into the affordable housing sector. When schemes with houses under Rs. 10 lakh came up, we found that customers in this segment were not getting housing finance. We built business models and got a number of housing finance companies to start in this segment. Today the key housing finance problem for customers probably is the high pricing. We have worked with several governments and helped with affordable housing task force recommendations. Our key strength is understanding the customer segment which earns Rs. 10,000–25,000 per month, formal or informal income.

What is the impact we are trying to create? We are trying to help move our customer segment from cramped conditions to a decent house. While the size of the house may not be much bigger, it is a formal property with utilities. To differentiate our approach with what the government focusses on, the government is looking at housing for people who are earning typically under Rs. 16,000 per month. What we are talking about is the opportunity in which you can include the 10,000–25,000 per month income group. It is a slightly higher segment where the private sector can be a player and if this segment is not addressed, housing offered to the poor people will be snapped up by the segments above because there is a big shortage even there.

Evidence-based research on affordability: the supply end

We recently did a study against the background of the policy debate and the discussion around affordable housing

today. We found that while there was a lot of anecdotal evidence, there were not many facts on the affordable housing scenario in India.

So, our perspective was to scan where low income was coming up in India and under what price point. Our definition for affordable housing was housing less than 10 lakh rupees which can be afforded with a mortgage from a housing finance company for customers earning Rs. 10,000–25,000. We found that about 30,500 units of low income housing are coming up in India in 152 projects across 22 cities. (These figures pertain to supply in June 2011.)

While the supply was encouraging it was still a drop in the ocean compared to the demand. The market initially picked up in cities like Ahmedabad and Mumbai, where clusters were forming. Projects in Ahmedabad such as Om Shanthi Nagar were hugely successful – 450 units, 9000 application forms sold. Indore is another city where a lot of affordable housing, well located, is coming up.

We had conducted a similar study in May 2010 and the change between the 2010 study and the recent one was that while the amount of housing has not increased significantly, the number of projects has gone up. Initially we found something like 29 projects in India. Today there are 132 projects. Some cities have over 20 projects offering housing under Rs. 10 lakhs. The market is picking up and responding well which means from the customer's perspective, you have a choice not only of the location but also of the developer.

Housing finance

Between 2007 and the present about eight or nine new housing finance companies have come up and are serving low income customers whether they have income proof or not. A number of banks do not lend to this segment base because there is no formal documentation of income. Most of these new housing finance companies have grown; their portfolio is about Rs. 1000 crores in total, reasonably well spread across India, though predominantly in western and central India. They have reasonably good finance level, good loan portfolio. Their average ticket size is between Rs. 5–10 lakhs.

Their business is based predominantly on low income customers. Their non-performing assets (NPAs) are near zero, as also their delayed payment. For the customer this is the opportunity to access formal housing. The alternative is to rent housing and face poor living conditions and he does not want to go back to such housing.

P G Ganapathy

To re-cap, the topic is policy imperatives to promote innovation along value chain for housing – improving affordability, growth, sustainability and governance. Two key points: first, policy imperatives – is it all common from a policy perspective? Second, to promote innovation, how do we come up with innovative ideas to solve problems? I will highlight a few questions important for debate and then direct them to our panelists. Is the problem one of policy or is it one of governance/implementation of policy?

Land is a big issue especially with respect to affordable housing projects. We will explore the subject of regulating land cost and making land more easily available to affordable housing projects. We will also cover financing for Economically Weaker Sections (EWS), Low Income Group (LIG)-A, LIG-B and lower than Rs 10,000 income group. What is the innovative idea here? Is there any policy question? On product itself, we should focus on methods to create good, habitable houses for the poor. Are they sustainable in terms of meeting user requirements? How innovative is product design and construction to make it more affordable? How do we overcome the huge governance challenges particularly in land, building plans, approvals, etc? How do we view rental housing?

I think all of us would agree that bulk of cost today is from land. I would like to hear from Pramod and Rajesh since both have a developer background and they deal with these issues on a daily basis. Do you have any suggestions on how to regulate land cost? How to make more reasonably cost effective land available for affordable housing?

Pramod Kumar

Land availability and pricing

The biggest challenge we face in land acquisition is title and that is because of lack of proper land records over generations. We have depended on the village accountant to testify that these are the owners of the land. There are situations where one year later, suddenly someone claims his name did not figure in that list... I don't know how this can be regulated unless the government machinery maps land holdings. Some states have done it and there is fair amount of progress compared to what there was 15 or 20 years back. Land registration is computerized now, but we still have a long way to go.

Land owners today have become quasi-developers because they want a share of the developer's profit without going through the risk and the pain of developing a project and delivering it. While buying land in the periphery of urban territories of various cities, you are dealing with so-called villagers who are fully aware of how this business is done and therefore they are very clear about the price of land. They compare their land to something located close to a railway station, bus station or where transportation is available. Their land may not have the same facilities yet their aspiration is joint development where the benchmark is a 40/60 sharing. Now, if it is a 40/60 division, you should also be able to sell at a certain price. If I am selling an apartment at Rs. 1500 or Rs. 2000 sq ft, how can I give a 40/60 division? The math does not add up. These are the challenges with no definite solution.

P G Ganapathy

Land banking and EWS housing

The Affordable Housing Task Force talks about earmarking and allotting 10–15 percent of land in the master plan for affordable housing. There is this idea that government should start banking land before a new area comes up for

development and should release at special rates for affordable housing projects. There is also the new policy about mandatory 15–20 percent for EWS housing and policy level interventions.

Pramod Kumar

Affordable housing policy in the states

The Government of Haryana, for example, has announced an affordable housing policy based on certain size of apartment and they have fixed a fair selling price. The lower end was Rs. 3000 sq ft, going up to Rs. 4000 sq ft. I don't know how affordable these are going to be. Already one hears that the prices have gone up but it's a step in the right direction. In Karnataka, for example, the Karnataka Industrial Areas Development Board acquires land and then allots to industries. Similarly, if the government can step in and arrive at clear guidelines as to what affordable housing should be and make land available then yes, developing is the developer's responsibility; the next thing is approval, which is a different story. If these two things are taken care of then the onus is on developers to apply ideas and deliver a truly affordable house to customers.

Rajesh Krishnan

Three critical factors

I agree with Pramod and it would be nice if our wish list came true. I think land is there in abundance, we just have to know how to go after it. However, for affordable housing to happen, three things need to come together. First is capital in real estate, second is ability to deal with the local reality in India (land, approvals, sand mafias and so on) and third is mindset for affordable housing, where low cost and high volume production is the focus. The disconnect is that front line developers who have local presence and the capital do not have the mindset for affordable housing development. We have several modern developers who have the capital but struggle to deal with local realities. The bulk of the activity is coming from local developers, who are doing 20–50 units each, but are unable to scale. These are the people who have access to land at the right price. So the important thing is to connect these three things together.

V Balasubramanian

Some innovative initiatives

If land is in abundance and it is available, then someone has to locate it and deal with it appropriately. For example, about 12 years ago, during the regime of the Marxist government in West Bengal, I had an opportunity to visit 20 acres of land in Salt Lake City located on the way to the airport — it was vacant land. The government wanted to develop low cost LIG housing but they found that they had to invest a lot of money. So they approached Ambuja Cements on a PPP model. The company was asked to develop the land with 50 percent of the 20 acres to be given to LIG

housing, 5 acres for the MIG (Middle Income Group) housing and the balance for HIG (High Income Group) housing. In those days, the LIG was sold for Rs. 1 lakh and you made money from the HIG. The landscaping was given to the eminent architect Mr. Doshi. The whole company was managed by a joint board. The chairman was from the government, while the managing director was from Ambuja Cements and that worked very well.

In Bangalore, in BBMP related sites we have about 1800 acres of BDA lands available, excluding the parks, playgrounds, etc. These lands are classified as "other lands" and if they have not been encroached upon these lands are still available. One should identify these lands and then on a policy basis it has to be taken up as a meaningful joint venture.

P G Ganapathy

Higher FSI as an incentive?

Professor Lall, one way developers try to overcome this increasing land price is to try and build to higher floor space index (FSI). Governments also talk about increasing FSI and making land more affordable. From an architect's perspective and a product design perspective, what is your view on this approach towards high FSI to compensate for land cost and building high rises for affordable construction?

Ashok Lall

Environmental sustainability and housing design

Housing design and housing in urban areas are subjects of research globally. Considering environmental sustainability on one hand and social viability on the other, certain levels of density are found to be more or less optimal. If you go beyond those densities you have to take recourse to very high technologies to make those housing systems work. Those are affordable and also socially viable only in well developed and richer societies. So if you are talking about affordable housing I would say an FSI of 1, 1.2 is maximum. It gives you a good density. There are lots of people willing to share that land at four storeys high or maximum five storeys in a multi-storey block since they would be close to ground and have access to open ground as a compensation for their small home.

In this case, pumping water is not an issue. You are not dependent on high quality for safety against earthquake, wind and fire. You can deploy decentralized methods for utilizing water, treating the waste and re-using it. There is also sufficient open space and soft ground to facilitate water to percolate into the ground. It also becomes cheaper to do it this way and it is robust as a system. As things stand, 60–70 percent of the cost is related to land cost. Construction cost is much less, but if you look at just construction cost, building four to five storeys is optimal. The moment you go to eight storeys, it's another 15 percent, and so on proportionately. That's an immense cost, literally moving away from affordability. When you allow that high an FSI, you are actually pushing up costs. It goes contrary to the idea of sharing land cost. The clear indication is high density, low rise.

P G Ganapathy

Affordable construction technology

Professor Lall, when you talk about improving affordability from a "planning and design" and a "construction and technology" perspective, where are the opportunities to innovate? Are there any policy constraints coming in the way of innovation, whether it is building bye laws, road widths, parking norms and so on? As a designer, have you felt any constraints which could be altered by policy? What are your thoughts on improving affordability and improving sustainability for affordable housing?

Ashok Lall

Innovative measures

From the policy standpoint, there is certainly something that has to be looked at very carefully. All development authorities have building and development controls. One of the development controls is what we call the set back from the street. It is a hangover from the idea of a bungalow with a garden in the front – we never had it in the old cities. It seems to be a fundamental belief of planners that the bigger the parcel of land the more space you should leave between the building and the street. That actually takes away usable space from community use. There is definitely a need to look at building regulations and finding regulations to use the available land much more positively for community purposes and you could extend it to other aspects of building control.

We found that if you have long buildings like row housing, three to four storeys, with connecting passages then you could put a lift at one corner and another at the other corner shared between fifty homes, instead of having a stair-case for every four houses or six houses which makes lifts unaffordable. But the building regulations specify a certain distance between buildings; they say you can't connect the buildings with a bridge. These regulations, completely against common sense, come in the way of innovation. There are lots of options for technological innovation, space innovation, and ways of economizing while giving a lot of flexible space to the owner. When a developer talks of technology he speaks about buying a method of production of homes from some company in Mexico, Thailand or somewhere else. But he never speaks about evolving a method of construction that is inherently low capital investment and high return, one that follows the principle of industrial production but can give greater efficiencies. We need such innovation and we need to work out the incentivization required for that.

Question and answer session

Consolidation of land fragments

Audience Q: A problem arises when you have parcels of land that are fragmented – how do you consolidate them? That is one of the constraints to well planned development for high density, low rise apartments.

Ashok Lall: There is some misconception about high density, low rise. If you look at the Georgian houses in England, which are four to five storeys high, with a basement and even an attic, they are actually only 20–25 feet wide, independently built, exhibiting efficient use of land. So it's actually not about land allocation, it's about urban homes, it's about urban grain. If you look at the typologies of housing form that will get you the densities, I am in favour of making the smaller man the entrepreneur. Why become dependent on the larger man here? I think there is also a contradiction. There is an assumption that the large scaling up and larger numbers of production will bring down unit cost. That is done by the larger corporation whose inherent costs are very high. An analysis of urban housing typologies enables small entrepreneurs to move into the affordable housing space more effectively.

Land finance

P G Ganapathy

We will now move from land to financing. The question is with respect to improving affordability and the policy enabling it. From a micro financing perspective, how much financing is actually happening? Is there some solution for the household income of Rs. 10,000 and below?

The Affordable Housing Task Force visualizes several possible incentives to improve financing in this space. What are major issues you face in financing? Mention two or three policy steps that will improve financing and reduce cost.

Srinath Mukherji

Before I answer that question I raise a question to the audience. Suppose this gathering had happened in 1998, what would have been the theme of this discussion about real estate? How to keep prices up! Prices were falling at that time in India, including Bangalore. That is the nature of land. It is a commodity that goes through ups and downs depending on mass market behaviour which could be rational or illogical depending on the state of the market.

Governments can try to regulate land prices but they usually meet with little success. The fundamental driver is liquidity. There is a strong co-relation between consumer price inflation (CPIs) and expectation of land prices. People invest in land, buildings, houses or flats as a hedge against inflation when inflation is running high. Inflation in India between 2000 and 2005 was running at around 5 percent. Nobody talked about land or affordable housing problems because nobody bought flats, or land as an inflation hedge. In 2005 it picked up to 10–12 percent and everybody wanted to buy land, buy apartments even if it meant keeping them empty. Investors too were in a frenzy. But this too shall pass. Because this is something that has artificially been kept up by sentiment. Sentiment cycle lasts for about 20 years or so. That is in the nature of the beast. The question is how hard an intervention should the government do and that is always a dilemma because if the interventions outlined by the task force were executed, there would be no need for anything further.

So in answer to your initial question, is it policy or execution, it is execution. However in that execution, there are people who are part of this frenzy as well so whether they will do anything to reduce land prices is open to question.

V Balasubramanian

In answer to the question raised by the previous speaker, I recall a model which combines land and financing with entrepreneurship of the small man. The members of this round table must be aware of the Magarpatta Township on the outskirts of Pune, developed from around 430 acres of land sold by 120 farmers. One of the farmers, Satish Magar, organized this as joint stock, sharing the profits in proportion to the land that was contributed. They approached a professional architect and the model was ground plus three or four, and it was developed as a township with residential areas, commercial zones, restaurants and so on. The Magarpatta project would provide an incentive and quality direction for farmers selling land to organize similar models.

Srinath Mukherji

To answer the question on micro-financing, the task force has looked at recommendations in terms of making cheaper housing finance available. Companies such as ours borrow from banks or other sources and on-lend it. Our own lending rates are dependent on the costs at which we borrow. Today there is a secular rate prevailing in Indian banking which is between 12 and 15 percent. To get below that, you have to stand in a queue, get rationed by a bank or someone else. If you agree to the terms you will get preferential rates but the question is, will it be directed towards affordable housing or will the benefits be passed on? If cheaper money were made available to us through tax free bonds, or National Housing Bank (NHB) money, housing finance will become cheaper. But the dilemma we face is, apart from flats if we were to give cheap money for self-construction, where would it end up in a household? It gets diverted. If we have to police it, it brings up the cost, so we are back to the level of 12–13 percent to be able to deploy. So you can't subsidize for particular use in a milieu that has high interest rates; it gets diverted. We do home equity loans which are about 5 percent more than home construction loans to stop diversion. So, while policy wise there is room, with the present inflation situation there is very little room to bring down rates. Any subsidy will get diverted.

Role of HUDCO in affordable housing

P G Ganapathy

Could you tell a little bit about HUDCO's role in affordable housing? Are you involved in publicly funded projects like the government projects, or are you operating independently? Are you financing the private sector? Could you highlight your experiences?

S V Kamath

HUDCO's association historically has been with the state government – initially with state government agencies, housing boards, development authorities, municipal corporations, and all along HUDCO's mandate and thrust has been on financing economically weaker sections and lower income groups at a subsidized rate of interest. We have been doing this through subsidization from operations in higher income segments, commercial segments and of late, in infrastructure.

Basically our association has been with implementing agencies, larger programmes – project funding has been our area. From 1985 onwards in the initial decade the thrust was on low cost housing. A decade later, quality and

cost effective housing became important. In the context of urban awakening, this is getting a new label – affordable housing. If we look at it in the right perspective we can identify opportunities and create markets out of it; that is where the need and requirement demand is.

Public versus private housing

P G Ganapathy

Do you have something on the public side, Monitor, or have you only looked at the private side of affordable housing? If you take the entire spectrum of up to Rs. 25,000/- household incomes or even below Rs. 10,000/- do you have an estimate of the percentage being catered to by the private market?

Vikram Jain

I have no data on the contribution of the public sector. In the last 5–8 years, about 78,000 low income homes, below Rs. 10 lakhs, were catered by the private sector, with about 30,000 coming up in the last few years. In the last few years there has been uptake but it has been marginal compared to the huge demand.

Public purpose and the role of the state

Audience Q: As a general reaction, one could say that the beast has grown much bigger since the 80s. It was a similar approach, the consumption index related to investments in gold or real estate which brought about the crash in 2008 in United States housing. I am not finance person but in my own understanding I believe that's how it goes. We too might hit that and trip over badly... Secondly, housing is not purely a market thing. There is a sense of public purpose. There is a history of deprivation and exclusion in the country. I see the risk of collapse of market as well as risk of ingrained exclusion becoming worse. If the government is not going to step in and do something substantial then we are in trouble.

Srinath Mukherji

You are right. This is a dilemma that not only India but every country faces. In a situation that is market driven such as mass commodities, shares, stocks, bonds, real estate, and gold, what is the mechanism and the degree to which the government should intervene? Governments should ideally take counter-cyclic measures.

Customer preferences

Srinath Mukherji

Further, in real estate, there is the question of customer aspirations. We found that people who may be struggling to buy a one bedroom home and did not have a car, wanted a car park. People want more bedrooms. We are finding it very difficult to make it affordable.

Audience: So it seems as if there is an increasing "switch-up" situation in the market and steps should be taken to tackle affordable housing both from the supply side and in terms of the customer's preferences.

Srinath Mukherji

We have to understand that apartments and homes are also assets. The apartment dynamic has a dual aspect. One

is that of living in it and the other one is for its re-sale value.

Rajesh Krishnan

I think marketing has a lot to do with this. It is not just about cheap homes. When the Maruti 800 first came to market it was cheap but it was an aspiration product. If we can position cheap homes as an aspiration product the customer who wants to buy a home will want to buy these Rs. 10 lakh homes. In my mind marketing and positioning has a lot to do with the rate that the customer perceives and takes this product for. There is huge demand for small format homes, and the small format sells quicker.

Affordability

Audience Q: When it comes to affordability, there are two things – land component and building component. The land component is fixed. In building component we need to do research and innovation. Compared to other fields there seem to be minimum innovation standards in affordable housing.

Srinath Mukherji

We figured that lot of housing or room stock in India other than in metros is not going to be necessarily builder built. It will be done by people like you and me or people with freehold plots, who would have constructed a room and are adding another room because their son is getting married, for a third party, for rental and so on. That is where rooms are being added in India and it is not in the builder-constructed apartments. Urbanization is happening in places where people are constructing with a contractor or a mason. We call it self-construction. We do most of our financing for self-construction or own construction which has its risks and challenges. At that level there is no easy way to do innovation even in building construction material because leave aside technology, you don't even have a regularized mason registration. If innovation has to happen it has to be in mason training. The National Skill Development Corporation has to take up the issue as to who is going to train the masons of India on new technology and material. So let's be pragmatic about the issues on the ground.

P G Ganapathy

A very straight question – Is it possible, in Bangalore, for the private sector to provide an affordable home of 500 sq ft at rupees 5 lakhs, meeting all the requirements?

Rajesh Krishnan

This is where real policy innovation comes in. Today when developers ask for financing, the only financing comes from equity where investors are expecting 30 percent annualized returns.

Unless I provide that I can't get financing. But if there are people willing to give you money at 5–10 percent, you can use the benefit of low cost of financing to subsidize housing for the poor. There are several CSR investors, banks and others who are willing to give you money at 5–10 percent. If you structure this you can get access to financing at 10 percent. This means instead of selling a house at Rs. 3000 per sq ft you can sell it at Rs. 1000 per sq

ft. Instead of getting land at market price, if somebody is saying do social growth but give my money back with 5–10 percent returns, we can pursue that option.

Audience

Further, to tackle the problem of low cost building projects that are far from the city centre, we need to have a densification programme, inclusive zoning and so on. The master plan should look at that.

V Balasubramanian

In conclusion, I would say that to be more effective in policy making, we need to have a dialogue between politicians, bureaucrats, academics and experts, and the industry.

Organizing policy workshops and inviting these stakeholders may initiate free exchange of views that educates everyone, especially those who rule us.

P G Ganapathy

Thank you all for participating and making this a rich and insightful discussion.

References

- Berry, M. (2003). Why is it important to boost the supply of affordable housing in Australia—and how can we do it? *Urban Policy and Research*, 21(4), 413–435.
- CREDAI. (2013). *Assessing the economic impact of India's real estate sector*. New Delhi. At http://www.credai.org/sites/default/files/Assessing_the%20economic_impact_of_India_Real_Estate_Sector_Report.pdf Accessed 03.03.15.
- Freeman, A., Chaplin, R., & Whitehead, C. M. E. (1997). *Rental affordability: A review of international literature*. Discussion Paper No. 88. Cambridge, England: Cambridge University, Department of Land Economy.
- Gan, Q., & Hill, R. J. (2009). Measuring housing affordability: looking beyond the median. *Journal of Housing Economics*, 18(2), 115–125.
- Hancock, K. E. (1993). 'Can pay? Won't pay?' or economic principles of 'affordability'. *Urban Studies*, 30(1), 127–145.
- Hegedüs, J., & Teller, N. (2004). *Housing subsidies supporting low-income households (A review of international experiences)*. Prepared for Directorate General III Social Cohesion Social Policy Department, Metropolitan Research Institute.
- High Level Task Force on Affordable Housing for All. (December 2008). *Report of the High Level Task Force on Affordable Housing for All*. New Delhi: Government of India. Retrieved 11.03.2013, from <http://www.naredco.in/pdfs/report-high-level-task.pdf>.
- Holmans, A., Scanlon, K., & Whitehead, C. M. E. (2002). *Fiscal policy instruments to promote affordable housing*. Research Report, VII. Cambridge, UK: Cambridge Centre for Housing and Planning Research.
- Horner, H. (2009). *Affordable housing research and recommendations*. Minneapolis, MN: McKnight Foundation. <http://www.mcknight.org/files/pdfs/Research_MN_Values_Attitudes.pdf> Accessed December 2014.
- Jones Long Laselle. (2012). *On point: Affordable housing in India: An inclusive approach to sheltering the bottom of the pyramid*.
- Kundu, N. (2003). *The case of Kolkata, India. Understanding slums: Case studies for the global report on human settlements*. Available at http://www.ucl.ac.uk/dpu-projects/Global_Report/pdfs/Kolkata.pdf Accessed 24.12.14.
- Lalwani, N., Merchant, K., & Venkatachalam, B. (2010). *Micro mortgages: a macro opportunity in low-income housing finance. Monitor Inclusive Markets, October*.
- Lubell, J., Crain, R., & Cohen, R. (2007). Framing the issues – the positive impacts of affordable housing on health. *Center for Housing Policy*, 34.
- Milligan, V., Gurran, N., Lawson, J., Phibbs, P., & Phillips, R. (2009). *Innovation in affordable housing in Australia: Bringing policy and practice for not-for-profit organisations together*. Final Report, 134.
- MoHUPA. (2007). *National urban housing and habitat policy 2007*. New Delhi: MoHUPA, Government of India.
- MoHUPA. (2011). *Guidelines for affordable housing in partnership (Amended)*. New Delhi: MoHUPA, Government of India.
- Monitor Deloitte. (2013). *State of the low-income housing market: Encouraging progress & opportunity to realize dreams of millions*. Mumbai. At <http://www2.deloitte.com/in/en/pages/strategy/articles/state-of-the-low-income-housing-market.html> Accessed 03.03.15.
- Mueller, E. J., & Tighe, J. R. (2007). Making the case for affordable housing: connecting housing with health and education outcomes. *Journal of Planning Literature*, 21(4), 371–385.
- Rohe, W. M., & Stegman, M. A. (1994). The effects of homeownership: on the self-esteem, perceived control and life satisfaction of low-income people. *Journal of the American Planning Association*, 60(2), 173–184.
- Rohe, W. M., & Stewart, L. S. (1996). Homeownership and neighbourhood stability. *Housing Policy Debate*, 7(1), 37–81.
- Stone, M. (1993). *Shelter poverty: New ideas on housing affordability*. Temple University Press.