



Housing, Basic Infrastructure Services for All and Public-Private Partnerships

Ar. Bhavna Shrivastava

Research Scholar (Architecture and Planning Dept.)
Department of Architecture and Planning, MANIT, Bhopal,
Madhya Pradesh, India, Pin code 462051.

Abstract

This paper aims to develop a conceptual framework within which housing and basic infrastructure services for all can be delivered in urban India. Public-private partnership (PPP) is the most prominent urban housing policy that has emerged in the last decade in India. Housing reforms in Kolkata, under the flagship of PPP has taken the city into a different league after decades of ineffective housing policy. Despite high and sustained GDP growth rates over the past two decades, the vast majority of Indians continue to live in substandard housing with few basic amenities or pay disproportionately high portions of their income for formal housing and services like water. The framework developed here stresses integration – an alignment of the economic, legal, planning, financial systems and a clear mapping of requirements – tenure mix, associated infrastructure in order to ensure targeted and productive investment. Above all it highlights that housing cannot be thought of in isolation but must be provided along with infrastructure – physical and social. Against the elements highlighted in the framework, the paper evaluates the current issues and challenges in the Indian urban housing market and makes recommendations for tools and approaches that can guide movement towards a more holistic approach. This paper investigates the dynamics of PPP policy in Kolkata, where public housing agencies have assumed both facilitator and regulator roles within a socialist institutional setting to achieve a balance between market forces and the needs of the low-income people.

Keywords: Public-private partnership; Public housing, services, housing market.

Introduction

Economic growth and urbanization have become inextricably linked. With more than 51 percent of the world population now living in cities, the debate in recent years has been on whether to deplore urban living for mushrooming of slums where housing conditions are appalling, sanitation is almost non-existent, epidemic diseases can thrive, exploitation and physical dangers are widespread or to welcome for opportunities city life offers – jobs, health care, schools and opportunities for women (UNFPA, 2011).

Adequate housing is necessary for social welfare as it provides protection from weather, place to bring up families and a place to work. While policy debates have more or less accepted that urbanization is an irreversible phenomenon with more positive than negative externalities, the biggest challenge associated with urbanization is that it has not kept pace with the housing needs of those living in cities and those migrating to the cities. More than thirty percent of world's urban population are either living in poor housing conditions in slums or are homeless (UNHABITAT, 2010).

The situation is precarious when we look at the regional distribution. The percentage share of urban people who live in poor housing conditions in Sub-Saharan Africa is about 61 percent in 2010 followed by South Asia (35 percent) and South Eastern Asia (31 percent). In Eastern Asia 28 percent of urban population lives in slums while in Latin America and Caribbean the percentage is about 24 percent (UNHABITAT, 2010). The most disadvantaged are the low income families, who due to lack of housing have been driven into informal shelter in the burgeoning slums in many cities of all sizes. In many of Africa's cities and towns, for example, less than ten percent of the population lives in formal sector housing (Struyk and Gidding, 2009).

While it is well understood that housing and basic infrastructure provide an enabling environment for the overall development and urbanization and all cities attempt to provide better housing and basic infrastructure for its residents through increased public spending, policy interventions and various other enabling conditions, it is unclear why the outcomes are still appalling. On one hand, it could be argued that the scale of urbanization is so large and fast-paced that any attempt to provide better housing and basic infrastructure would fall short of the requirements. On the other hand, it may well be that the framework within which these attempts are being made are inadequate and marred with imperfections that do not allow the situation to improve. The Global Human Settlement Report 2003 (UNHABITAT 2003) argues that despite “modern technology, improvements in social attitudes and organization, and the existence of a large pool of wealth in the developed countries should make it possible to weather the remainder of this global challenge (cities without slums) ... (but) that is, in fact, not happening”. The report further argues that “slums and urban poverty are not just a manifestation of a population explosion and demographic change, or even of the vast impersonal forces of globalization” but a result of “a failure of housing policies, laws and delivery systems, as well as national and urban policies” (ibid).

India is fighting her own battle with regard to affordable housing with an estimated shortage of urban housing to the tune of 26.5 million in 2012, most of which is for the low income households. Our paper develops a conceptual framework necessary for delivering “housing and basic services for all” detailing various linkages between local housing

markets, planning, legal and economic systems, national housing policy and the constitutional rights related to housing and basic services and applies it to urban India.

While the conceptual framework can be applied to any country, the specific details would depend on individual country's institutions. Using a case of India, the paper examines where the challenges lie in delivering housing and basic services for all. The objective is not to 'quantify' the shortages or investment requirements etc. but to present a 'qualitative' discussion on institutional linkages that are important for the 'delivering housing and basic services for all' and evaluate current practices against a fully functioning institutional arrangement. The paper also proposes key action items to enable delivery of housing and basic infrastructure services.

Public-private partnership (PPP) is the most prominent urban housing policy that has emerged in the last decade in India. Kolkata, the capital city of the State of West Bengal, has been in the forefront of housing market revival with its own PPP model, regarded nationally as highly successful (Jain, 2003; Rao, 2000a). Demographically, the city is one of the 10 largest urban agglomerations in the world, exhibiting some of the worst housing conditions, with statistically one-third of the current population living in slums. The World Development Indicators Report has projected the population to reach 17.3 million by the year 2015, an increase of 2.3 million over the present population of 14.96 million (World Bank, 2001). To sustain this demographic trend, the magnitude of infrastructure investment required is phenomenal, necessitating resource pooling from all sources, including the private sector.

Number of Units

The urban housing shortage in the country by March 2012 would be about 26.5 million units (MoUD, 2007). Of this, approximately 23 million units, is for the Economically Weaker Sections (EWS) (see income categories definitions below) whereas 3.1 million is the shortage for the Lower Income Group (LIG). It is important to understand the nature of shortage. While about 9.3 million households in urban India do not have access to any kind of housing, the rest of the shortage (17.2 million) arises from households living in inadequate housing conditions in slums, congested housing or obsolete housing. 5

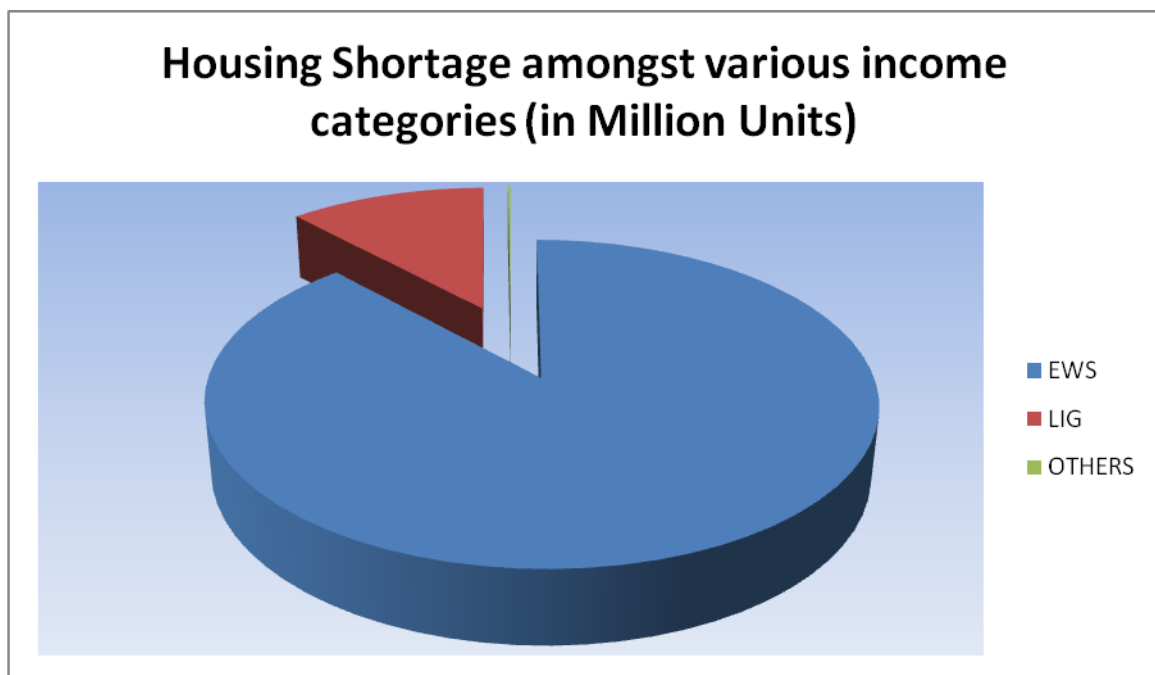


Figure 1: Urban housing shortage in India (2012)

There are also severe shortages amongst the Higher Income Group (HIG) and Middle Income Group (MIG) categories. However these are less acute. A Monitor Group study estimates a market of approximately 21 million unserved urban households who can afford to buy homes costing Rs. 0.3 million to Rs. 1 million with their monthly household income of Rs. 8,000 -11,000. This group is the 30 percent that fall just below the top 15 percent who can afford homes at the current market prices. These households currently occupy housing of poor quality which may be either formal or informal – in slums or dormitories. Basic amenities such as individual water and sanitation connections, street lighting or social infrastructure like gardens and common areas are often missing. This housing is typically rented and renters may be subject to sudden rent increases (*"Building Houses"*, 2010; Hingorani, 2011).

An insufficient mix of tenures

The current structure of tenure varies widely according to a number of factors - the households' income category, whether the housing is in rural or urban areas, or by tier of city. According to NSSO (2010), of the households who had access to housing in urban areas, 61 percent owned their homes while the rest lived in rental housing (largely private with some employer provided). Broadly speaking, HIGs tend to own their homes or are able to participate in the formal private rental market. While MIG and LIG households in rural areas might own their own homes, these groups would typically find it vastly unaffordable to buy homes in the larger metros (see Table 1). These groups would then choose the informal market where they could rent or 'own' in slums. The major cities - Mumbai, Chennai, Delhi, Bangalore, Kolkata and Hyderabad - alone accounted for 68% of the slum population in 2001 (Census, 2001). Almost across the board, there is a paucity of formal subsidized rental or ownership housing that caters to LIGs. The paradox is that there is

a large rental market in the informal sector whether through slumlords who illegally own and rent out land and units or through unregistered ‘dormitories’ or ‘paying guest’ facilities. 6

Development of a formal rental market was stunted by the 1961 Rent Control Act. While this Act was designed to protect renters from eviction and rapid increases in market rent, by freezing rents at a certain level, it became a disincentive to landlords who found it unprofitable to rent and often lost their properties to tenants who they could not evict. More recently, with the repealment of the Act the private rental market is picking up amongst MIGs and HIGs, with shorter 11-month leases to guard against squatting. The notable absence from housing markets is the public rental housing in India, which is a major tenure of affordable housing in countries like UK, France, Netherlands, etc.

Affordability

While the recent programme of the national government aimed at affordable housing, Rajiv AwasYojana (RAY), does not explicitly define affordable housing, we can assume that the Ministry of Housing and Urban Poverty Alleviation (MHUPA) definition is applicable to this scheme. A government-organized task force, “Affordable Housing for All”, assembled to advise MHUPA on solutions for promoting equitable housing, revises the official definition by suggesting that the carpet area for EWS and LIG housing should be 300 sq. ft. and 600 sq. ft. respectively, and the price of housing for EWS and LIG should “not exceed 4 times the household gross annual income.”¹ State government definitions of affordable housing differ marginally from the national definition. For example, the Development Control Regulations, largely implemented in the Mumbai Metropolitan Region (MMR), narrow the size criterion to 225 sq. ft. - 270 sq. ft. for affordable housing units.

Similarly, independent advisory organizations have established their own definitions for India. The McKinsey Global Institute states that affordable housing should be defined based on varying incomes and sizes, rather than the concept of “one size fits all;” they define the market for affordable housing as households earning less Rs 90,000 (EWS) and those earning between Rs 90,000 and Rs 200,000 (LIG), annually. Based on its lending practices, the largest private sector mortgage lender in India, HDFC, maintains that the maximum purchasing affordability is 5.1 times the annual income of a household. KPMG’s report on affordable housing in India, stratifies housing size according to income levels and construction plans; for EWS and LIG households, with annual incomes of less than Rs 150,000, housing units should be less than or equal to 300 sq. ft., will have few amenities, be located on city peripheries (though rarely within the city) and be financed by micro-finance institutions (MFIs), while LIG households with annual incomes between Rs 150,000 and Rs 300,000, housing would have basic amenities, between 300-1200 sq. ft., located within the city and financed by the formal banking sector.

Internationally too, definitions vary. In the United States, the Department of Housing and Urban Development defines affordability as when a household “pay(s) no more than 30 percent of its annual income on housing.”² When housing expenditure is above 30% of annual income, families are “cost-burdened” and must be provided financial support. A similar definition is used in Australia (Yates and Milligan, 2007).

While international definitions of affordable housing are mainly dependent on income and cost criteria, in India, the size of the housing unit is also considered to ensure adequate living space for large families. While specifying unit size does serve a purpose, the primary concern should be to provide basic shelter not to complicate it with unfeasible restrictions. Using data from the National Statistics Sample Survey (Round 64, Year 2007-2008) adjusted to 2010-2011 we estimate the segments of the urban population that at current market-rate housing prices, cannot afford to buy a house even in non-prime areas of the cities.

City	Annual consumer expenditure, family of 5 (2010-2011)					Ratio: House price/Annual consumption expenditure				
	0-20	20-40	40-60	60-80	80-100	0-20	20-40	40-60	60-80	80-100
Mumbai	47,082	73,754	98,584	134,908	275,416	41	26	20	14	7
Delhi	57,618	82,743	105,215	138,666	288,973	28	20	15	12	6
Kolkata	40,377	59,976	81,711	116,709	235,481	24	16	12	8	4
Hyderabad	42,366	63,365	84,585	120,835	259,427	23	15	11	8	4
Chennai	42,292	61,596	80,164	111,773	223,398	31	21	16	12	6
Bengaluru	42,734	66,901	92,174	134,834	277,626	24	16	11	8	4

Table 1: Housing affordability across fractile classes

Source: National Statistics Sample Survey (Round 64, Year 2007-2008)

Judging affordability as eligibility for a loan (the typical income criterion for a commercial loan is having an annual income that is at least one-fifth of the house price), only the highest fractile class can afford to borrow to buy houses and that too not in Mumbai and Delhi. However, since we are using consumer expenditure as a proxy for household income, one can expect that a few more households than shown above might be eligible.

Basic infrastructure services

The current state of basic infrastructure services in the urban India, especially water supply and sanitation (WSS), is inadequate by most standards. This is complicated further by the fact that only a handful of cities in the country would have an updated consumer database, asset register, record of water produced/consumed, or even revenue accounts to enable accurate estimation of cost recovery, which makes objective assessment impossible. Estimates of the proportion of households with access to an improved water source are relatively high at about 92 percent (NSSO, 2010). However,

access to piped water supply is only to 75 per cent, while households with direct connections are approximately 55 per cent (Bhatnagar and Ramanujam, 2011). Moreover, recent data for 28 urban centres suggest that only eight meet the 135 litres per capita per day (lpcd) water supply benchmark (nine reported less than 100 lpcd) and none have 24 hour supply (21 reported water supply of less than 5 hours a day) (ibid). The situation with regard to sanitation is far worse. Only 58 percent of households had access to exclusive toilet facilities (NSSO, 2010). Access to these services has an income dimension with most disadvantaged being the poor. Thus there is a huge gap between what is desired and what exists on the ground.

Housing Markets

At a very broad level, households can be classified on an economic basis. As described earlier, in India the broad classifications are low income, middle income and high income groups (LIG, MIG and HIG). This economic categorization is relevant as it allows us to map the affordability level of the household with the type of housing (defined by cost, size, amenities, tenure and location) that will be demanded. Naturally, there are other considerations that will determine demand – e.g. size of household, age demographics, or which tier of city a household lives in. A middle income household, defined by income alone, will be able to afford ‘more’ housing in a smaller city than in one of the major metros. Typically as one moves up the income spectrum, markets will be largely responsible for housing delivery. It is particularly at the middle and lower ends of the income spectrum that policy interventions would be needed.

Recognizing varying levels of affordability and income, the next step is to identify a range of housing tenures that will meet the needs of different demographics. This is shown in the third row from the top. At the extreme left is the public rental housing, which by nature is subsidized, for households who cannot afford other tenures of housing. The large public subsidy component requires that this form of tenure is well targeted and at the same time minimizes chances getting them into ‘poverty trap’ (Bertaud, 2007), which arises when households consume more housing facilitated by government subsidies than what their incomes would allow. The next level of tenure are *transit homes* for households moving from one tenure to another e.g. households moving from squatter settlements or public rental housing to next level of housing tenure. This housing might also be for new migrants to a city until they find suitable housing.

MIGs might be able to access the *private rental or private ownership* housing market. However, public agencies may need to support this group by supplying *public ownership houses*, which have some element of subsidy in the land or mortgage cost. For HIGs markets should be able to supply *private ownership and rental housing*.

The source of funds to pay for housing will also lie across a spectrum. At the higher ends of the spectrum, *financial markets* should work efficiently in supplying credit for purchase of dwelling units. However, since financial markets are likely to exclude LIGs and some MIGs, other options have to be made available for those households whose incomes are not sufficient to afford rent or credit to buy homes. Such households would require *public subsidy for rental or ownership housing*, which have to be ‘*means tested*’. Subsidies could be demand-side such as housing allowances and interest rate subsidies or supply-side such as grants and tax credits to affordable housing builders. Demand side subsidies would need to be complemented with supply side interventions so that more housing is available, otherwise the impact of these subsidies would be price inflation.

Particularly in the case of India or countries with large informal economies, there may be LIG and MIG households who can afford credit but are precluded from the formal finance market. A well-functioning microfinance market would be necessary for such households. An efficient housing finance market would on one hand offer a range of products that meets the need of its clients and on the other hand match its asset and liabilities so that financing is sustainable. Subsidies must be well-targeted and mechanism put in place to monitor delivery to prevent them from being an unproductive drain on the exchequer. This is of particular concern in India where misuse of subsidies is all too prevalent, and will undoubtedly be difficult to achieve. The fifth layer in the pyramid deals with land. In a number of countries, skewed land holding patterns, legacy planning issues or even land mafias have created persistent structural distortions in the market for land. There will be a range of ways in which land for housing will have to be made available. One possible, although contentious, way is through the use of “*eminent domain*” by the government. Another is through ‘inclusionary zoning’ or reservation of land by local bodies or private developers to accommodate lower income households. For other households, land could be transacted in the *free market*. This framework does not preclude the use of other models of obtaining land, for example, the model adopted by the Baan Makong community in Thailand with regard to slum regularization, where communities were asked to themselves negotiate tenure to the land on which they were living. Communities often made outright purchase of land at prevailing market prices through a combination of their own savings and subsidized loan from the government. Making subsidies, land and housing available to poorer households, will require *budgetary allocation* from governments at all levels – national, state and city. These must be planned and coordinated across scales to ensure efficient use of resources. Given the scale of housing required there is equally space for the *market and private capital* in the housing market.

In sum, a well-functioning housing market requires policy coherence between its different constituent elements. Government has a big role to play through laws, policies and fiscal support in those areas where markets cannot function on their own.

The State of Public Sector Housing in Kolkata and the Rise of Public–Private Partnerships

Public housing in Kolkata is supplied by multiple agents and organizations, such as the WBHB, the Kolkata Metropolitan Development Authority (KMDA) and other State construction and urban development departments. The supply of public housing formally began with the establishment of the WBHB in 1972. Since its inception the WBHB has constructed nearly 31,000 dwelling units and the Housing Directorate maintains additional 34,000 rental flats in West Bengal (Government of West Bengal, 2004). KMDA, which is a relatively new player in housing has less than 10,000 housing units to its credit, although it has greater contribution in other spheres of urban development like water supply, drainage, sanitation, slum improvement and upgrading projects. As over one million new households were formed over

the 30-year period, the scale of public housing production remained extremely sluggish, implying approximately 1 unit of public housing constructed for every 13 new households. Equally dramatic has been the worsening housing quality situation in the city. As early as 1981, an estimated 66% of the total 2.0 million households in the KMA (i.e., 1.32 million families) were living in one-room units (of which 0.56 million were located in slums), indicating a high proportion of 'over crowded' households. An additional 20% or 0.4 million families were living in 2-room units and only the remaining 14% (0.14 million families) in 3–6-room units (Chakravorty, 1991, p. 165). Twenty years later, the average-occupancy rate for a quarter of KMA households still stood at 7 persons per room with about 59% of families living in one-room units (Hasan & Khan, 1999, p. 104–105).

The continued qualitative and quantitative shortage suggests that government intervention in the form of a provider approach in Kolkata in the last three decades of the twentieth century, has only resulted in suboptimal housing investment, stifling the efficacy of the market to increase housing production. Even though housing investment across the Five-Year Plan periods increased in terms of the net amount allocated, it showed a marked decrease as a percentage of total planned investment. While public housing schemes suffered due to under-investment, the need for housing grew alarmingly. Das (2001) estimated that, even assuming a modest shelter of 250 ft² and an average cost of pucca construction at 350 ft², the total investment required to provide shelter for all in the State would come to INR 125 billion (US\$28 million). This was a conservative estimate of the housing investment required in 1991, which obviously has increased significantly since then. At the outset, the emergence of PPP in Kolkata stemmed from the colossal demand for housing, the State government's dwindling budget, massive demand coming from the elite sections of society for better quality of services and wider recognition of housing as a catalyst to boost economic growth. The average annual additional housing need in the KMA is projected to be 90,000 units by the year 2025 (Table 2) (KMDA, 2000, p. 73). This reflects the magnitude of additional growth in Kolkata, assuming that the current housing deficiency will not worsen and slight improvements in occupancy rate.

The WBHB adopted the idea of PPPs to address the cleavage between the demand for and supply of housing for all except the poorest 27% of households. Following the enactment of West Bengal Building (Regulation of Promotion of construction and Transfer by Promoters) Act 1993, the new saga of PPP in the housing sector started. The influence of the concept has been so pervasive that every conceivable public authority in Kolkata is now contemplating partnership in some form or another.

PPP model is expected to boost macro-economic conditions of the city with its multiplier effects. According to Deb (2002), every rupee invested in housing adds 78 paise to the GDP in

India, which alone has forward and backward linkages with as many as 280 industries. The real estate/construction industry provides 16% of employment and is the second largest employer in India next to agricultural sector. The real estate sector has (therefore) tended to focus more on maximizing housing output as a way of maximizing revenue and a way to save the State from industrial recession. The link between the real estate sector and wider economy in the city is increasingly recognized and acknowledged by the State government. To maximize housing investment, the government has declared the housing sector as an infrastructure sector, thereby annexing tax benefits on investments. Concomitantly, the housing finance sector is undergoing a sea change. The housing sector has become a promising venture for commercial banks to channel their funds particularly due to low credit take up in the industrial sector. The fall in interest rates against housing loans has been phenomenal, accompanied by increased volume of housing loan disbursements (The Telegraph, 2003). Fig. 1 shows that while interest rates have halved in the last 5 years, total loan disbursements trebled across the country indicating a changing pattern of the real estate market in a society that has traditionally been skeptical about borrowing. PPP is increasingly regarded as a viable strategy in Kolkata where full privatization would be inconceivable in the State's value laden socialist policy environment.

Conclusion

The paper develops a framework for delivering "housing and basic infrastructure services for all" for the urban Indian context. An important 'conceptual' point raised in the paper is that to deliver on 'housing and basic infrastructure for all', various institutions have to work in tandem – a well-defined constitutional right, housing and habitat policy that has statutory backing, legal and planning regime that facilitates development, housing finance system that is well integrated with broader capital markets, state and local governments that have capacity to develop programmes for housing and basic infrastructure for LIGs and have financial resources to deliver on these. In this context, it is important to note that the goal of 'housing and basic infrastructure services for all' cannot be addressed in isolation from other objectives of the government. More importantly the responses have to be multi-faceted and levers from both housing market and non-housing market would be required in an integrated way. The need for comprehensive framework arises so that fragmentation of policy responses (as is the case in most government programmes such as RAY or even JNNURM), are avoided and a coherent action plan is promoted. The application of conceptual framework to urban India indicates that there are a number of impediments at various levels that have hampered delivery of 'housing and basic infrastructure for all'. While a constitution right with statutory backing will go a long way, addressing inefficiencies in the planning system, housing finance and housing development markets would require capacity building at all levels. State and local governments need to formulate policies, based on careful research and understanding of the areas under their jurisdiction, that will help enable affordable housing developers. Only careful analysis will allow them to facilitate the work of developers while regulating it to make sure the benefits are not misused.

Investments need to be made in developing alternate building technologies and materials. Emphasis needs to be placed on educating and encouraging developers to use green building practices, sustainability features and community centered development. At the same time the fiscal and regulatory framework needs to be revised to simplify and reduce the cost of the construction processes. The paper has discussed the implementation of PPP in response to the increasing severity of the housing shortage and the failure of public provision to keep pace with demand in the last 30 years of State housing programmes in Kolkata. The particular path of enablement that the government has adopted has led to a kind of partnership that is growing, oddly enough, despite the socialist institutional context. PPP is changing the way in which

the government views its developmental role in society, in particular seeking to limit the extent of its investment while facilitating growth in the organizational strength of the private sector. As a by-product of a more general enabling strategy, the PPPs in Kolkata can be seen as illustrating the emergence of a liberalized housing market, relatively free from direct state intervention but rooted in the principles of social housing programmes.

References

- Annez, P., Bertaud, A., Patel, B., & Phatak, V. (2010). Working with the Market: A New Approach to Reducing Urban Slums in India. Retrieved from http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1709847.
- Berry, M. (2006a), "Housing affordability and the economy: a review of labour market impacts and policy issues", Research paper 5, Australian Housing and Urban Research Institute.
- Berry, M. (2006b), "Housing affordability and the economy: a review of macroeconomic impacts and policy issues", Research Paper 4, Australian Housing and Urban Research Institute.
- Bertaud, A. (2007), "Affordable housing: the supply side", presentation for Workshop on Middle & Low Income Housing in China organized by Development Research Center of the State Council (DRC), World Bank (WB) and International Finance Corporation (IFC), Beijing, July 19, 2007.
- Bhan, G. (2009). "This is no longer the city I once knew. Evictions, the urban poor and the right to the city in millennial Delhi", *Environment and Urbanization*, 21(1), 127-142.
- Census (2001), "Census of India", Ministry of Home Affairs, Government of India, New Delhi.
- Deb, A., Karamchandani, A., & Singh, R. (2010). Building Houses, Financing Homes. Retrieved from <http://www.mim.monitor.com/downloads/whitepaper-BuildingHousesFinancingHomes-final-screen.pdf>
- Degnbol-Martinussen, J. (2001). *Policies, Institutions and Industrial Development: Coping with Liberalisation and International Competition in India*. London: Sage Publications.
- HPEC (2011), "Report on Indian Urban Infrastructure and Services", The High Powered Expert Committee for Estimating the Investment Requirements for Urban Infrastructure Services, Ministry of Urban Development, Government of India, New Delhi.
- Hingorani, Pritika (2011). Revisiting Low Income Housing: A Review of Policies and Perspectives, *Paper prepared for the India Urban Conference*, November 2011.
- Hingorani, Pritika (2011). Housing Solutions: A Review of Models, *Paper prepared for the India Urban Conference*, November 2011.
- Kumar, A. (1989). National Housing Policy: The Implications. *Economic and Political Weekly*, 24(23), 1285-1291.
- Mahadevia, D. (2006). NURM and the poor in globalising mega cities. *Economic and Political Weekly*, 41(31), 3399-3403.
- Mathur, O.P. (2009). Slum-Free Cities: A New Deal for the Urban Poor. Retrieved from www.nipfp.org.in/opm_files/.../Final%20Poverty%20Rep.pdf
- Marshall, S. (2010). Of squatters and schemes : considering city-level strategies for housing the poor in India. (Masters Dissertation). Retrieved from DSpace@MIT <http://hdl.handle.net/1721.1/59580>
- Chakravorty, R. L. M. (1991). A housing scenario for the Calcutta Metropolitan Planning Area. In Dasgupta, et al. (Eds.), *Calcutta's urban future*. Calcutta: Government of West Bengal.
- Das, P. R. (2001). Community approach in housing delivery for the poor through NGOs. Eastern Window, Vision 2001 [/http://www.shilpabichitra.com/shilpa2001/Win-037.html](http://www.shilpabichitra.com/shilpa2001/Win-037.html), 8 May 2004.
- Deb, G. (2002). Keynote paper presented in Operation shelter: national conference on housing, 14–15 December, Kolkata. Government of India. (1998). National Housing and Habitat Policy. New Delhi: Ministry of Urban Affairs and Employment.
- McKinsey Global Institute. (2010). India's urban awakening: Building inclusive cities, sustaining economic growth. Retrieved from http://www.mckinsey.com/mgi/publications/india_urbanization/index.asp
- Bhatnagar, V. and Ramanujam, S.R. (2011), "Addressing the Challenge of Financial Sustainability in Urban Water Supply Services—Role of Performance, Monitoring, and Planning", India Infrastructure Report 2011, Oxford University Press, New Delhi.
- Boonyabanha, S. (2009). Baan Mankong: going to scale with "slum" and squatter upgrading in Thailand. *Environment and Urbanization*, 17(1), 21-46.