

Tiwari, Piyush; Rao, Jyoti

Working Paper

Housing markets and housing policies in India

ADB Working Paper, No. 565

Provided in Cooperation with:

Asian Development Bank Institute (ADBI), Tokyo

Suggested Citation: Tiwari, Piyush; Rao, Jyoti (2016) : Housing markets and housing policies in India, ADB Working Paper, No. 565, Asian Development Bank Institute (ADBI), Tokyo

This Version is available at:

<https://hdl.handle.net/10419/161441>

Standard-Nutzungsbedingungen:

Die Dokumente auf EconStor dürfen zu eigenen wissenschaftlichen Zwecken und zum Privatgebrauch gespeichert und kopiert werden.

Sie dürfen die Dokumente nicht für öffentliche oder kommerzielle Zwecke vervielfältigen, öffentlich ausstellen, öffentlich zugänglich machen, vertreiben oder anderweitig nutzen.

Sofern die Verfasser die Dokumente unter Open-Content-Lizenzen (insbesondere CC-Lizenzen) zur Verfügung gestellt haben sollten, gelten abweichend von diesen Nutzungsbedingungen die in der dort genannten Lizenz gewährten Nutzungsrechte.

Terms of use:

Documents in EconStor may be saved and copied for your personal and scholarly purposes.

You are not to copy documents for public or commercial purposes, to exhibit the documents publicly, to make them publicly available on the internet, or to distribute or otherwise use the documents in public.

If the documents have been made available under an Open Content Licence (especially Creative Commons Licences), you may exercise further usage rights as specified in the indicated licence.



<https://creativecommons.org/licenses/by-nc-nd/3.0/igo/>



ADB Working Paper Series

Housing Markets and Housing Policies in India

Piyush Tiwari and Jyoti Rao

No. 565
April 2016

Asian Development Bank Institute

Piyush Tiwari is a professor at the Faculty of Architecture, Building and Planning, University of Melbourne, Australia.

Jyoti Rao is a PhD student at the Faculty of Architecture, Building and Planning, University of Melbourne, Australia.

The authors would like to thank ADBI for funding the project and especially Matthias Helble, Victor Li, and participants at the two workshops organized by ADBI in Tokyo for insightful comments on the paper.

The views expressed in this paper are the views of the author and do not necessarily reflect the views or policies of ADBI, ADB, its Board of Directors, or the governments they represent. ADBI does not guarantee the accuracy of the data included in this paper and accepts no responsibility for any consequences of their use. Terminology used may not necessarily be consistent with ADB official terms.

Working papers are subject to formal revision and correction before they are finalized and considered published.

The Working Paper series is a continuation of the formerly named Discussion Paper series; the numbering of the papers continued without interruption or change. ADBI's working papers reflect initial ideas on a topic and are posted online for discussion. ADBI encourages readers to post their comments on the main page for each working paper (given in the citation below). Some working papers may develop into other forms of publication.

Suggested citation:

Tiwari, P., and J. Rao. 2016. Housing Markets and Housing Policies in India. ADBI Working Paper 565. Tokyo: Asian Development Bank Institute. Available: <http://www.adb.org/publications/housing-markets-and-housing-policies-india/>

Please contact the authors for information about this paper.

Email: piyush.tiwari@unimelb.edu.au; jyoti.rao@unimelb.edu.au

Asian Development Bank Institute
Kasumigaseki Building 8F
3-2-5 Kasumigaseki, Chiyoda-ku
Tokyo 100-6008, Japan

Tel: +81-3-3593-5500
Fax: +81-3-3593-5571
URL: www.adbi.org
E-mail: info@adbi.org

© 2016 Asian Development Bank Institute

Abstract

Issues of housing in India are synonymous with ignorance of housing in active government involvement at the policy and program formulation levels. They are also due to the problems that unplanned urbanization, income disparity, poverty, illiteracy, and unemployment brought. These issues extenuated the housing problem, causing a housing shortage of 51 million in 2011. Though India has a long history of establishing policies, programs, and institutions to cater to housing, without allocating adequate resources, their impact in ameliorating the shortage has been marginal. This paper argues that to address the housing shortage in India, there is desperate need to prepare a framework for housing by (i) including housing as a constitutional right; (ii) resolving issues of unclear land titles and ensuing claims; (iii) building adequate financial resources for affordable housing programs; (iv) building responsive instruments to facilitate the affordability of housing by all income segments; and (v) overcoming market segmentation, which is currently catering to the housing needs of creditworthy clients and is overlooking the growing demand from middle- and lower-income segments. India needs to leverage its extensive architecture of agencies, policies, and market frameworks for housing by equipping them with adequate resources so they can deliver housing for all.

JEL Classification: R21, R31, R23

Contents

| | | |
|-----|---|----|
| 1 | Introduction | 3 |
| 2 | Economic and Demographic Context | 4 |
| 3 | State of Housing..... | 8 |
| 3.1 | Scale of the Problem..... | 8 |
| 3.2 | House Area and Congestion | 11 |
| 3.3 | House Affordability..... | 12 |
| 4 | Housing Policies and Programs | 14 |
| 4.1 | The Nehru Era (1947–1964) | 14 |
| 4.2 | The Gandhi Era and the Green Revolution (1965–1990) | 18 |
| 4.3 | Postliberalization (1991–2000)..... | 21 |
| 4.4 | Economic Globalization (Post-2000) | 22 |
| 5 | An Evaluation of Housing Policies..... | 23 |
| 6 | The Lessons | 26 |
| | References | 31 |

1 INTRODUCTION

With urbanization and growing economic disparity, the challenges associated with housing availability, housing provisioning, and use have become far more extenuated in India. The prevailing economic, political, and policy environment provides the context within which concerns about affordable housing, homelessness, poor housing quality, and mismatches in demand and supply of housing can be understood. The political and economic vision for development of modern India immediately after independence, which focused on capital goods during the 1950s and the 1960s, shifted toward an agrarian economy, with the deepening of democratic roots in the 1970s and the 1980s. Policy disincentives toward an urban economy through industrial licensing, import restrictions, and other such policies hampered the country's industrial growth. Since the 1990s, with globalization and market liberalization, the economic structure has shifted to services. The policy approach toward housing has followed these ideologies of the time. The role of government transitioned from provider to facilitator. Even though adequate housing has been recognized as a necessity for social welfare, India did not have an explicit national housing policy until 2007. A number of programs associated with housing have been implemented since independence by different governments. One of the challenges of the lack of policy backup (and appropriate constitutional backing) has been that these programs lacked continuity and interconnectedness. Postindependence investment strategies of the government led to the migration of the population from rural to urban areas as new employment opportunities emerged in cities while the rural economy was stagnating. Whether the growth agenda was complemented with a social agenda involving providing good-quality housing in cities is a question that is evaluated in this paper.

This paper has two purposes: (i) it reviews the economic, urban, and housing context for India to assess the housing situation through various indicators; and (ii) it assesses the trajectory of housing programs in India since independence and the housing policy since 2007, and evaluates them within the context of economic, political, and historical forces that have shaped India's market economy and society.

To analyze housing in India more closely, this paper examines the following policy-related questions:

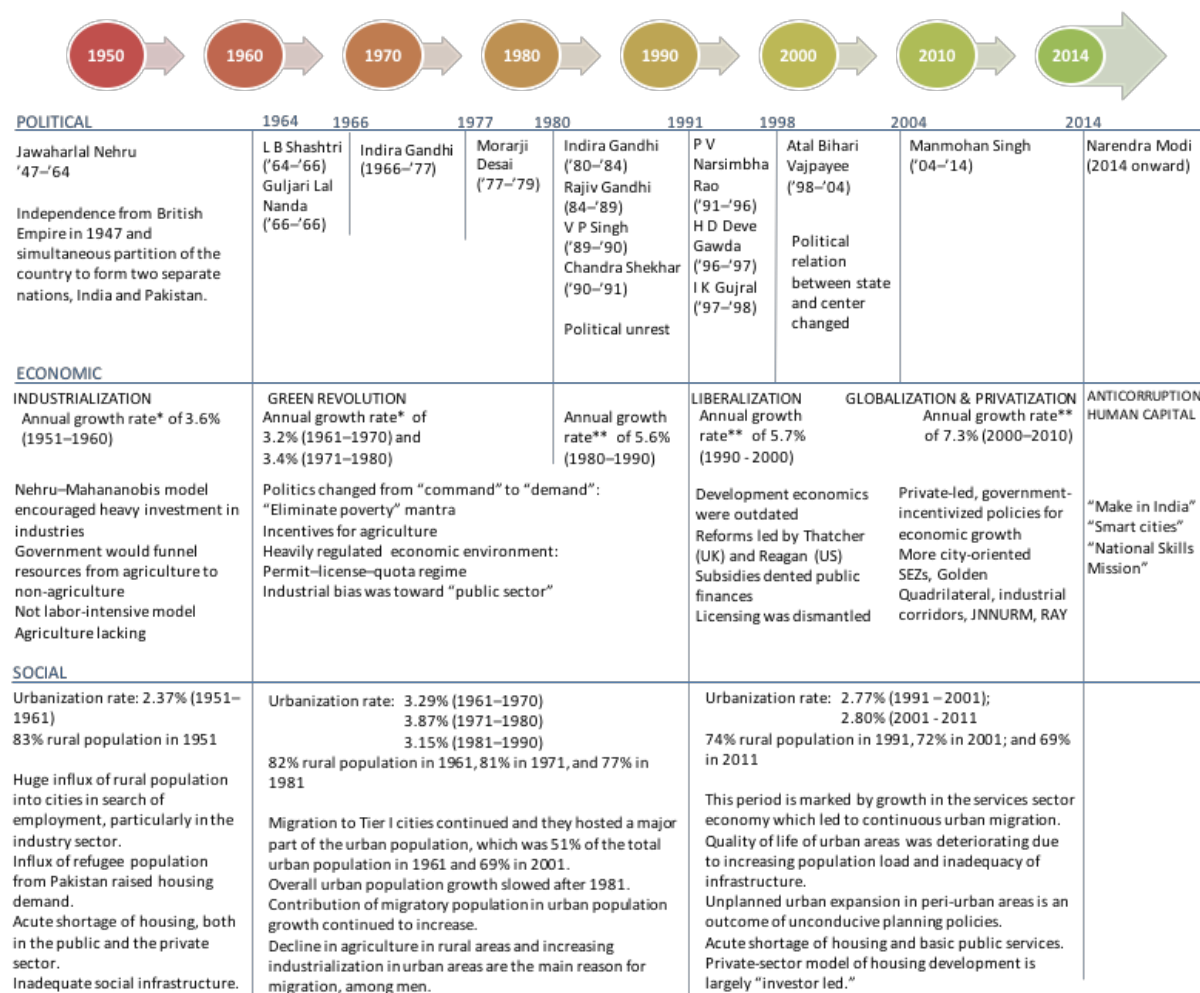
- a. What is the current status of the housing market?
- b. What housing policies and programs have been implemented in India?
- c. What are the income groups that have been targeted by the housing policies?
- d. What is the assessment of housing policies and programs in India?
- e. What are the lessons learned from the implemented housing policies and programs in India?

The remainder of the paper is structured as follows: Section 2 discusses the economic and demographic context of India. Section 3 examines the existing challenges of adequate housing in India by presenting key indicators. Section 4 provides details about various housing programs and policies. Section 5 presents an assessment of policies and programs on housing stock. Finally, section 6 summarizes the lessons from previously implemented policies and programs.

2 ECONOMIC AND DEMOGRAPHIC CONTEXT

The political, economic, and social environments form the context within which housing policies and programs are formulated. Figure 1 presents a snapshot of political, economic, and social (including housing) environments and interlinkages between them on a temporal scale since India's independence in 1947.

Figure 1: Timeline of Economic, Political, and Social Environments of India since Independence (1947)



* From R. Nagaraj. 1990. Growth Rate of India's GDP, 1950–1951 to 1987–1988: Examination of Alternative Hypotheses. Economic and Political Weekly 25(26): 1396–1403.

** From R. Jha. 2011. India's Economy Growing Rapidly and Unequally. <http://www.eastasiaforum.org/2011/04/28/india-s-economy-growing-rapidly-and-unequally/> (retrieved on 18 Dec 2015)

JNNURM = Jawaharlal Nehru National Urban Renewal Mission, RAY = Rajiv Awas Yojana, SEZ = special economic zone, UK = United Kingdom, US = United States.

Source: Authors, based on Tiwari (2016).

During the leadership of Jawaharlal Nehru from 1947 to 1964, Indian economic policies focused on self-reliance, import substitution, and development of capital goods industries, and most resources were channeled into these sectors. The economy was centrally planned through 5-year plans. The industrialization that followed led to migration from rural hinterland to cities. Declining agricultural productivity also acted as a strong “push” factor. Migration to cities generated demand for housing, which, to some extent, were provided by public sector industrial employers to their employees and through various programs, as discussed later, but largely were unaddressed. During the post-Nehru period of 1965–1990, democracy took root beyond Delhi and in rural areas where most voters lived. The economy transitioned from a “command” economy to a “demand” economy and vote-bank politics led to populist policies. The mantra of policies and programs was to remove poverty and provide incentives to the agriculture sector (Tiwari et al. 2015). The economic environment was heavily regulated and there was a bias against private industrialization. Migration to urban areas continued unabated, creating deplorable living conditions in cities and causing formation of slums. The huge subsidies that were offered to the agriculture sector and the capital investment program that followed to support the rural economy did not yield much economic growth but depleted public finances (Tiwari et al. 2015). The annual economic growth during 1947–1990 averaged at about 4%. There was a general sense globally (e.g., in developed economies such as the United Kingdom and the United States, as well as in developing economies such as Brazil) that the private sector needed to play a greater role in the economy and the industrial licensing regime that had stifled private sector growth needed to be loosened (Tiwari et al. 2015). This led to the decade of liberalization (1991–2004). The economy grew at an average growth rate of 6%. The difficulty, however, was that India had missed the development of the manufacturing sector. Cities continued to grow and the backlog of poor living conditions was huge. After 2004, the economy moved into the globalization and privatization period, which is largely privately led, service sector oriented, and cities-driven. The focus of government policies and programs was on infrastructure development and providing incentives for sectors that could raise India’s global competitiveness (Tiwari et al. 2015). Cities were back in focus through programs such as reform-led infrastructure investment programs for cities, the Jawaharlal Nehru National Urban Renewal Mission (JNNURM), and housing programs such as Rajiv Awas Yojana (RAY) and, more recently, Housing for All (Urban) 2015–2022. In 2014, a new government under the leadership of Narendra Modi was elected. The policy focus of this new government is to revive manufacturing in India, develop “smart cities,” and build human capital through the National Skill Development Mission.

The demographics and demographic shift form another important context to understand the housing situation. With a total population of around 1.22 billion, India is the second-most populous country in the world (World Bank 2015). India is undergoing various transformations caused by the gradual shift of the population from rural to urban areas. Table 1 presents the population trends and the rural-to-urban shift indicated by a change in the rural–urban population composition and also by the increasing numbers of towns and urban agglomerations.

Table 1: Trend of Urbanization in India, 1951–2011

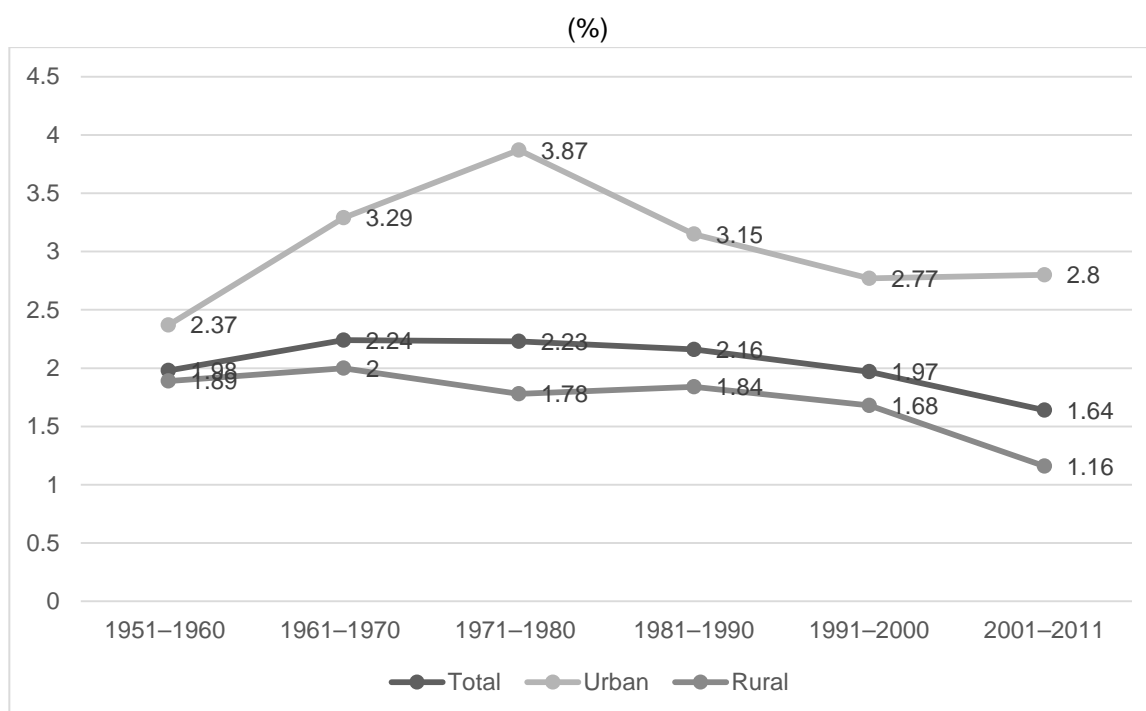
| Year | Total Population (million) | Urban ^a Population (million) | Rural Population (million) | No. of Towns and UAs |
|------|-------------------------------|--|-------------------------------|-------------------------|
| 1951 | 361 | 62 | 299 | 2,843 |
| 1961 | 439 | 79 | 360 | 2,365 |
| 1971 | 548 | 109 | 439 | 2,590 |
| 1981 | 683 | 159 | 524 | 3,378 |
| 1991 | 846 | 217 | 629 | 3,768 |
| 2001 | 1,029 | 286 | 743 | 5,161 |
| 2011 | 1,211 | 377 | 833 | 7,933 |

UA = urban agglomeration.

^a The Census 2011 adopted the following definition for an urban area (town and city), following the pattern of the Census 1961: (a) all places with a municipality, corporation or cantonment, or notified town area; and (b) all other places that satisfied the following criteria: (i) a minimum population of 5,000; (ii) at least 75% of the male working population was nonagricultural; and (iii) a density of population of at least 400 per square kilometer.

Source: Authors' calculations based on Tiwari et al. (2015).

India's urban population is 377 million, living in 7,933 urban centers including 53 cities with populations above 1 million and 3 megacities (Greater Mumbai, Delhi, and Kolkata) (Census 2011). The growth in the urban population, however, has stagnated at around 2.80% since 2001. The growth in the rural population has slowed down to 1.16% in 2011 (Figure 2).

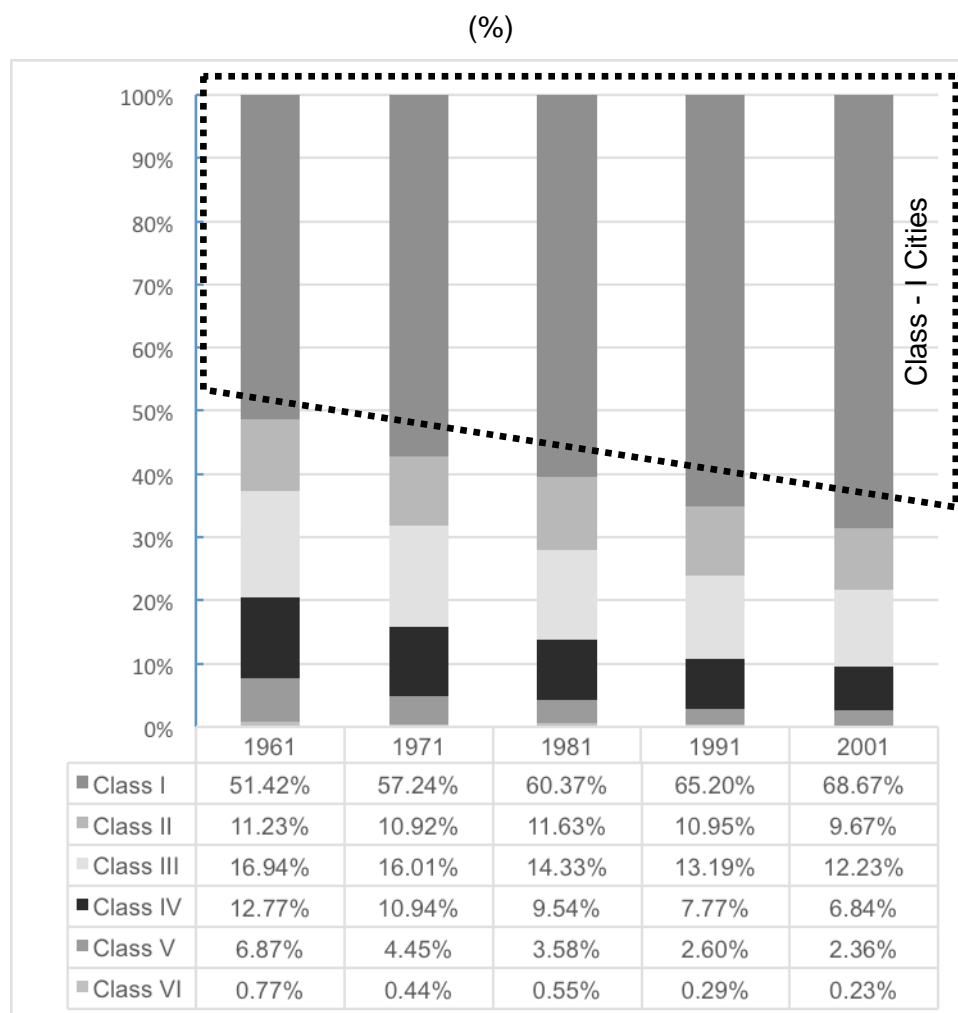
Figure 2: Annual Exponential Growth Rate of Population in India, 1961–2011

Source: Authors' calculations based on Tiwari et al. (2015).

The decadal growth rate of the urban population has been less than 3% except during the 3 decades from 1971 onward, which is a consequence of industrialization and the decline in the rural economy.

Class-I cities with populations exceeding 100,000 are witnessing huge growths in their populations, as shown in Figure 3, increasing density and congestion. The concentration of the population in these cities has resulted in the formation of monocentric primate cities and a lack of a uniform distribution of economic centers over space. Class-I cities comprise about 70% of the urban population and, interestingly, within the Class-I cities, the million-plus cities dominate the landscape in population terms and, in the 3 decades since 1981, their share of the urban population has gone up from 26% to 42.6%, whereas the share of the urban population in other categories of cities has been consistently declining (Figure 3).

Figure 3: Share of Urban Population in Classes I–VI of Cities and Towns in India



Note: Class-I cities have at least 100,000 inhabitants, Class-II cities have more than 50,000 inhabitants, Class-III towns have more than 20,000 inhabitants, Class-IV towns have more than 10,000 inhabitants; Class-V towns have more than 5,000 inhabitants, and Class-VI towns have fewer than 5,000 inhabitants.

Source: Tiwari et al. (2015, 30).

The implication of the urbanization trend has been that the Class-I cities have been witnessing serious problems related to housing shortage. The problem of housing shortage that was earlier limited to metropolitan cities has spread to other Class-I cities as well (Tiwari et al. 2015).

3 STATE OF HOUSING

3.1 Scale of the Problem

The housing shortage in India does not appear very big, considering the size of the homeless population in the country in 2011 was only 1.77 million (0.15% of the total population), which is slightly less than what it was in the previous decade, as seen in Table 2.

Table 2: Homeless Population in Rural and Urban India in 2001 and 2011

(population in million)

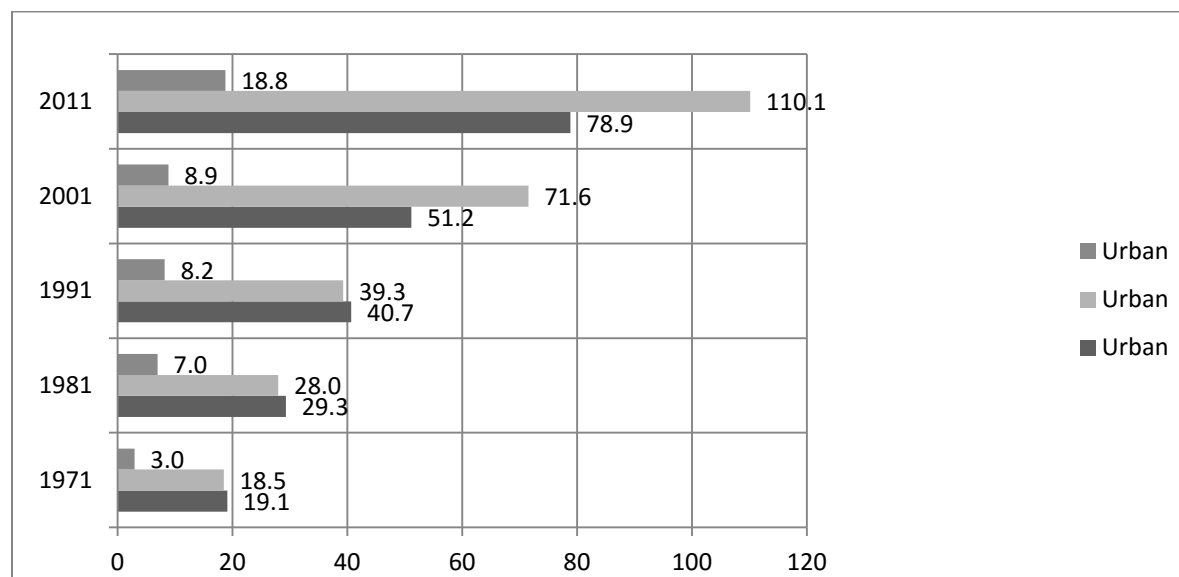
| | | 2001 | 2011 | Decadal Growth Rate (%) |
|-----------|---------------------|----------|----------|-------------------------------|
| All India | Total population | 1,028.61 | 1,210.57 | 17.7 |
| | Homeless population | 1.94 | 1.77 | –8.8 |
| Urban | Total population | 286.31 | 377.11 | 31.7 |
| | Homeless population | 0.78 | 0.94 | 20.5 |
| Rural | Total population | 742.3 | 833.46 | 12.3 |
| | Homeless population | 1.16 | 0.83 | –28.4 |

Source: Authors' calculations based on Kumuda (2014).

The homeless population contributes only marginally to the housing shortage. The problem becomes acute when, in addition to homelessness, the replacement needs of houses in bad physical condition (due to age and structural durability), as well as the ones that offer substandard living conditions (due to the level of congestion inside the house), are also considered. The nature of housing shortages in rural and urban areas is different. For example, the condition of the physical structure of the house is a much bigger concern in rural areas than in urban areas where issues of congestion need to be addressed.

Figure 4 shows that trends in urban population increases are accompanied by increases in housing shortages. It is disappointing to note that, despite numerous housing programs implemented every 5–10 years, housing shortages (in absolute terms) have been consistently increasing.

Figure 4: Urban Households, Housing Stock, and Housing Shortages in India, 1971–2011
(million)



Note: Housing shortage = Households living in nonserviceable *katcha* (nondurable) + households living in obsolescent houses + households living in congested houses + households that are homeless. Data from National Buildings Organisation (2013).

Sources: Authors' calculations based on Census 2011, Centre for Good Governance (2003), National Buildings Organisation (2012), and Planning Commission of India (2012–2017).

Tiwari and Parikh (2012) estimate that the total housing shortage in India is approximately 51 million units and an additional 113 million houses will be required if semipermanent units are also replaced. This would mean that 21% of households are in urgent need of housing and another 46% are living in inadequate housing conditions and, thus, 67% of India need decent housing. Over and above these, the problem of lack of access of households to basic services (electricity, water, and sanitation) greatly increases the challenge of providing decent housing. It is surprising that after 70 years of planning and policy designing since independence, a total of 53% of households do not have access to drinking water in their premises, 53% of households do not have toilets, and 33% of households do not have access to electricity (Census 2011).

Although the Planning Commission estimated the housing shortfall in urban areas to be 18.78 million housing units in 2012 (Figure 4), Tiwari and Parikh (2012) estimate this shortage to be higher by about 3 million at 21.87 million because of the inclusion of “nondurable” houses in their calculations (Table 3). The increase in housing shortages over time is a consequence of the continuous dilapidation of housing stocks from previous decades. Using the values in Table 3, we find that 27% of the shortages in urban areas are due to the existence of physically unfit structures (nondurable and obsolete) and that 69% of the housing shortages in urban areas are attributed to congested living conditions. This not only poses questions about the quality of life in Indian cities but also about overpriced houses, compelling households to adapt to congestion. The addition of new housing stock in the market has not reduced shortages, implying that the target consumers for the new stock are different from those households who are creating the market demand for housing, and the stock is unaffordable even for the targeted consumer group, which leads to lesser absorption and higher vacancy rates.

Table 3: Housing Need in India in 2011

| Factors Taken for Assessing Housing Shortages | Rural Housing Shortage (million) | Urban Housing Shortage (million) |
|--|---|---|
| No. of nondurable houses | 10 | 3 |
| Shortage due to congestion ^a | 10.86 | 15.09 |
| Shortage due to obsolescence ^b | 7.18 | 2.84 |
| Homeless population | 0.83 | 0.94 |
| Total | 28.87 | 21.87 |

^a This is calculated by multiplying the number of households with an appropriate “congestion factor,” which is defined as the percentage of houses in which at least one couple does not have a separate room to live in. This includes households in which couples are sharing a room with at least one other member aged 10 years or more. The congestion factor in rural India is 6.5% and in urban India 19.1% (Tiware and Parikh 2012).

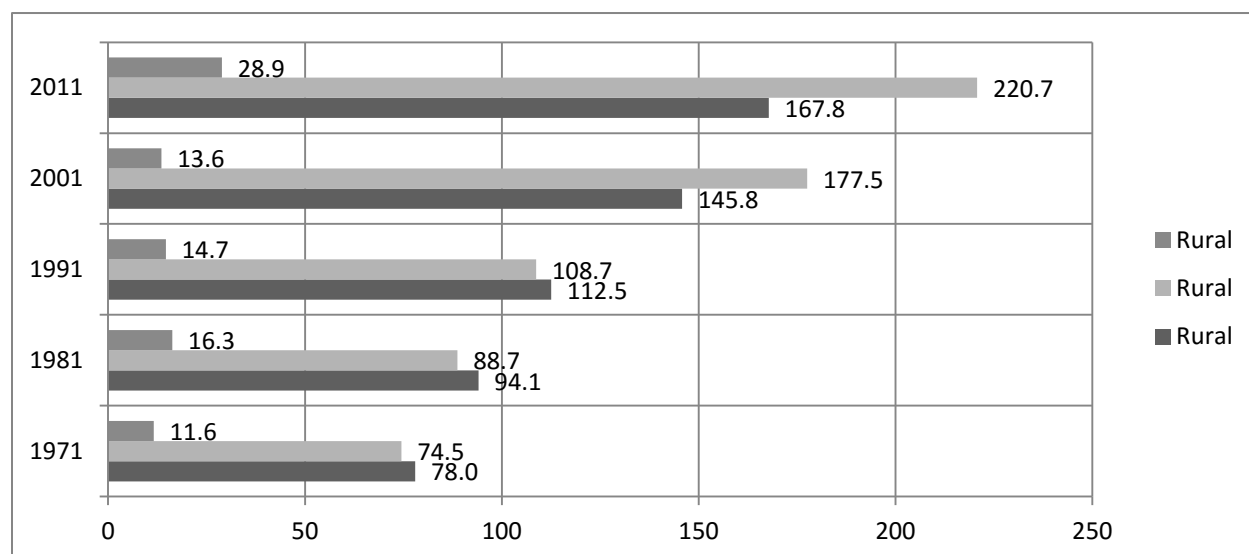
^b This is calculated by multiplying the number of households with an appropriate “obsolescence factor,” which is defined as the percentage of households living in dwelling units aged 40–80 years that are in bad condition plus the percentage of households living in structures aged more than 80 years, irrespective of the condition of structures. The obsolescence factor in rural India is 4.3% and in urban India 3.6% (Tiware and Parikh 2012).

Source: Authors' calculations based on Tiware and Parikh (2012).

The problem of housing shortages is more serious in rural areas (in absolute terms) than in the urban centers due to the size of the rural population in India (69% of the total population), of which 17% (28.9 million) are in urgent need of houses, as shown in Figure 5.

Figure 5: Rural Households, Housing Stock, and Housing Shortages in India, 1971–2011

(million)



Note: The rural housing shortage in 2011 is estimated to be 28.9 million by Tiware and Parikh (2012). The shortages reported in the figure for 1971–2001 are National Buildings Organisation (NBO) estimates, which are highly conservative because the methodology adopted by the NBO does not account for replacement of all nondurable houses.

Sources: Authors' calculations based on Census 2011, Centre for Good Governance (2003), NBO (2012), Planning Commission of India (2012–2017, and Tiware and Parikh (2012).

Housing shortages in rural areas have almost been stagnant (except in 2011), though the number of households has doubled in the past 4 decades. This indicates that, with the availability of land in rural areas, construction of a house is easier, although the quality of construction has been lacking. According to the estimates of Tiware and Parikh (2012) (see Table 3), 59% of the shortages in rural area are due to the bad condition of the physical

structures (nondurable and obsolete) and 37% is due to congestion, which is contrary to the pattern in urban areas where congestion is a bigger challenge than the quality of structures.

3.2 House Area and Congestion

A decent house with adequate privacy is a prerequisite for a healthy built environment. A big household size and less household income compel toleration of a congested living environment, which is further exacerbated by unaffordable housing prices. Usually, one room is shared between 2–3 users (average size of a house is two rooms and average household size¹ is 4.9 persons) (Census 2011), demonstrating congested living. Housing conditions have not changed much but instead have deteriorated further because of shrinkage in house sizes and the increasing numbers of persons sharing rooms. Table 4 presents statistics on the number of persons per room across various income groups in rural, urban, and slum areas.

Table 4: Housing Congestion in Various Income Groups in Slums (Urban), Urban (Non-slum), and Rural Areas in India in 2002

| MPCE Class (Rs) | Slums and squatter settlements (persons per room) | Urban (non-slum areas) (persons per room) | MPCE Class (Rs) | Rural (persons per room) |
|---------------------------|---|---|---------------------------|------------------------------------|
| 0–300 | 2.4 | 3.3 | 0–225 | 3.7 |
| 301–350 | 3.7 | 3.5 | 226–255 | 3.4 |
| 351–425 | 3.3 | 3.4 | 256–300 | 3.2 |
| 426–500 | 3.8 | 2.8 | 301–340 | 3.5 |
| 501–575 | 4.1 | 3.4 | 341–380 | 3.1 |
| 576–665 | 3.9 | 2.7 | 381–420 | 2.8 |
| 666–775 | 3.3 | 2.6 | 421–470 | 2.9 |
| 776–915 | 3.3 | 2.3 | 471–525 | 2.6 |
| 916–1,120 | 2.6 | 2 | 526–615 | 2.4 |
| 1,121–1,500 | 2.2 | 1.7 | 616–775 | 2.1 |
| 1,501–1,925 | 1.9 | 1.6 | 776–950 | 1.8 |
| >1,925 | 1.5 | 1.2 | > 950 | 1.4 |
| All classes | 3.3 | 2.3 | All classes | 2.7 |

MPCE = monthly per capita expenditure.

Source: Authors' calculations based on National Sample Survey Office (2002).

Lack of privacy is a serious concern in rural areas where 3–4 persons share one room, more so among the lower monthly-per-capita-expenditure (MPCE) classes where it is comparable to the situation in urban slums. As we move above the MPCE class of Rs526–Rs615, the level of congestion decreases to below 2.4 persons sharing one room in rural areas, whereas similar situations are achieved in urban areas for the MPCE class of Rs776–Rs915 or higher and for the MPCE class of Rs1,120–Rs1,500 or higher in urban slums. This indicates that though the overall average number of single-room users in rural areas is 2.7, which is higher in congestion level if compared to the urban average of 2.3 users, the ease of access to decongested housing is better in rural than in urban areas in terms of affordability.

Unlike urban areas, where there have been programs to address housing deprivation for the poor, the rural areas have had few programs, as discussed later. One would expect it to have been relatively easier to improve the condition of low-income households in rural areas because

¹ Average size of households = Total population/No. of households (MOSPI 2011, 182).

land procurement for housing development would probably be less expensive as compared to that in the urban areas. The challenge, however, lies in the dependency of house construction activity on private builders and developers who do not perceive that rural markets are profitable. The onus to construct or upgrade houses in rural areas, therefore, lies with public agencies that have been reluctant to become producers of housing stock.

Moreover, though the average house area available per person is lowest in urban slums (4.5 square meters [m^2]), second-lowest in rural areas (7.5 m^2), and highest in cities (8.6 m^2), comparing rural and urban conditions across similar MPCE classes reveals that housing is still much more spacious in rural than in urban areas, especially for higher income groups. Though the house area is relatively bigger in rural areas, there are challenges of poor quality of design and construction, obsolescence, and nondurability, contributing severely to housing shortages.

3.3 House Affordability

Affordable housing refers to any housing that meets some form of affordable criterion, the prime ones being (i) income level, (ii) size of the dwelling unit, and (iii) proportion of expenditure required for the housing (see Table 5). In India, the Ministry of Housing and Urban Poverty Alleviation (MHUPA) provides guidelines on the affordability and construction of such housing according to income groups and, according to a recent report by the Deepak Parekh Committee (2008), constituted by the MHUPA, an affordable housing unit for economically weaker sections (EWS) and lower-income groups (LIGs)² should be financeable by home loans with estimated monthly installments (EMIs) not exceeding 30% of the household gross monthly income, and it should be constructed such that the carpet area of the housing unit is between 30 m^2 and 60 m^2 . Similarly, for the middle-income group (MIG), the EMIs should not exceed 40% of the household gross monthly income and the carpet area of the house should be about 120 m^2 . The criteria were later revised by Wadhwa (2009) because it was realized that the housing needs of the population from below the poverty line (BPL) should also be taken into consideration. The new definition proposed 5% as the affordable cost for housing for BPLs and reduced the figure from 30% to 20% for EWS, but retained it as 30%–40% for LIGs and MIGs. The Deepak Parekh Committee not only defined the size of the housing units but also specified the standards for a decent house and gave the ambitious definition of “adequate shelter” as something meaning “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” (Deepak Parekh Committee 2008, 7). Whereas affordable housing guidelines aim at providing decent housing to all, the practical implementation of these guidelines were found to be challenging, thereby missing all three criteria together, especially for LIGs where the gap between household income and house price is extremely high.

² The groups EWS and LIGs are defined by having an annual household income of no more than Rs100,000 and between Rs100,000 and Rs200,000, respectively (MHUPA 2013, 5).

Table 5: Defining Affordability for Various Income Groups and Housing Shortage in Urban India, 2007–2010

| Income group | Defined/Desired affordability | | | | Affordability status in 2010 | | Number of housing units required (million, 2007) |
|---------------------------------|--|---------------------------|---|---|---|---|--|
| | Monthly income of household (Rs, 2010) | House Size (square meter) | Affordability (1): House price (rent/EMI) as percentage of monthly income | Affordability (2): Ratio of house price to annual income of household | House price* (rent/EMI) as percentage of monthly income | Ratio of house price* to annual income of household (in 2010) | |
| Below poverty line BPL | ≤ 2,690 | 21–27 | 5% | 2 | 266% | 76 | 21.78 (which is 99.86% of 21.81 households) |
| Economically weaker section EWS | 539–3,300 | | 20% | 3 | 217% | 62 | |
| Lower-income group LIG | 3,301–7,300 | 28–40 41–60 | 30% | 4 | 98% | 28 | 2.89 (which is 10.48% of 27.57 households) |
| Middle-income group MIG | 7,301–14,500 | 61–112 | 30%–40% | 5 | 49% | 14 | 0.04 (which is 0.24% of 16.92 households) |
| Higher-middle-income group HMIG | 25,829 (avg.) | >112 | 30%–40% | 5 | 28% | 8 | |
| Higher-income group HIG | 85,152 (avg.) | | 30%–40% | 5 | 8% | 2 | |

Sources: Authors' calculations based on Wadhwa (2009), Jones Lang LaSalle (2010), and Ministry of Housing and Urban Poverty Alleviation (2013).

The gap is widest for BPLs, which constitute approximately 22% of the population of India and includes 14% of the urban population and 26% of the rural population (Planning Commission of India 2013). With income constrained to the extent that BPL persons cannot even afford to pay for adequate food, it is really challenging to fill the gap for a house, especially when it is as wide as between homelessness (assuming that most of the BPL population are homeless or live in extremely dilapidated housing conditions) and home ownership. Wadhwa (2009) defines affordability as a proportion of income that can be spent on housing and assumes that the BPL class can at best afford to pay up to 5% of their monthly income as rent or EMIs for housing (Table 5). This amounted to merely Rs134 in 2009 when average market rent in tier-I cities³ was Rs7,148⁴ for a house of 28 m², which is nearly 53 times higher than what BPL households can afford. The situation is only slightly better for the EWS and LIG classes, for which the

³ Tier-I cities include Mumbai, National Capital Region (NCR) of Delhi, Pune, Hyderabad, Bangalore, Chennai, and Kolkata.

⁴ The figure is calculated by the author by deriving market rent from the *Economic Times*. Rent is assumed to be 3.5% of house cost.

average market rent of Rs7,148 is 13 times and seven times, respectively, what they can afford to pay for housing. Even the MIG class is unable to afford a small house of 28 m² and, thus, housing is observed as affordable only for approximately 16% of the population (Jones Lang LaSalle 2010) belonging to higher middle-income and higher income groups, as shown in Table 5.

The discussion above indicates that the formula to achieve “housing for all” is not simple and there is a need to derive different types of housing that offer variations in sizes of houses, structural quality, infrastructure services, and tenure types to meet the requirements of various income groups while also making housing affordable. So far, the approach has been to make home ownership possible and, accordingly, the definition of affordability takes into consideration only house size. For example, affordable houses are defined as “dwelling units with carpet area between 21 m² and 27 m² for the EWS category and 28–60 m² for LIG category (LIG-A: 28–40 m²; and LIG-B: 41–60 m²)” (MHUPA 2013, 4) and the sale prices of these houses are left at the discretion of states and/or union territories. On the basis of the market price, a house between 21 m² and 27 m² would cost Rs1.85 million–Rs 2.38 million whereas the affordability of the target segment would be Rs97,000–Rs119,000. Targeting to provide home ownership to the EWS segment, while keeping it affordable for them, would thus mean that almost 95% of the cost of a house would be subsidized by the exchequer. This huge gap between affordability and the actual market price of a house is further widened by the absence of formal financial instruments for lower income classes that also lack accumulated or inherited wealth and, therefore, neither have the capacity to make an initial down payment, nor do they have the capability to pay monthly installments. Thus, the aim of “housing for all” becomes unachievable and it is no surprise that most of the housing policies have failed to provide ownership to the target income class and have rather ended in serving as an alternate investment option for higher income groups.

4 HOUSING POLICIES AND PROGRAMS

The discussion above indicates that the housing condition is a complex interplay of economic and social dynamics. With regard to housing, policy makers have also faced dilemmas such as (i) whether housing is a productive or nonproductive sector of the economy, and (ii) whether housing is a public or private good. The economic and political ideologies and priorities, and demographic trends, as discussed in section 2, have played an important role in shaping public policies and programs in India. This section discusses housing policies and programs during the four phases of political and economic growth in India (discussed in section 2). These phases were immediately after independence (1947–1964), here termed the Nehru Era; during the Green Revolution (1965–1990), termed the Gandhi Era; during the privatization phase of the economy (1991–2000), termed the Post-Liberalization Era; and, finally, during the economic globalization phase (post-2000).

4.1 The Nehru Era (1947–1964)

The current housing conditions in India have a legacy from the postindependence (1947) era of housing planning and policies, which, in turn, are interlinked with economic and political drivers. As discussed earlier, the beginning of the economic policy environment in India was characterized by its focus on facilitation of industrial activities and production of capital goods. In contrast to the economic objectives, which were to be delivered with limited available capital, provisioning of housing was seen as a capital-consuming exercise with no assurance of any direct economic return. To some extent, this view was also reflected in the mindset of architects

of the constitution of modern India, which did not include housing as a constitutional right. Consequently, housing was neither accorded priority status for policies and programs nor did it become a constitutional obligation for the government.

The postindependence emphasis on public investment in capital goods was the starting point of policy building for democratic India, and this caused a reduction in the involvement of public agencies, both financially and functionally, in the provision of social goods such as housing. Although housing conditions in urban India were precarious due to lack of support from either the rulers of preindependence India or the industrialists who employed migrant workers in their factories, the demand for housing in big cities became acute during World War II (1939–1945). The sudden increase in work opportunities in towns after the emergence of war-related production plants led to huge rural–urban migration. The usual push factors from villages, i.e., uncertainty in crop production, increasing debts, lack of opportunities for employment, and persistent underemployment in agriculture, did not allow the migrants to move back to the villages even when these industries started to decelerate. Housing demand for industrial workers continued to build up and was usually met by the provision of workers' units (traditionally called *chawls*, comprising a single room and kitchen with shared amenities), either by the industrial estate owners themselves or by other landowners in the form of rental units. Alongside this formal arrangement for housing, there was the development of unauthorized squatter settlements and shanties on private and public land, which became the first home to migrants. The common elements across all formal and informal housing types were the poor quality of construction and the lack of basic infrastructure such as water supply and sanitation. Employers with limited resources were not able to meet the demand for the production of workers' units, and they started taking the stand that “not they but the state has the responsibility for providing houses for the working class and that apart from their other handicaps, they have not sufficient means for investing in house building” (Planning Commission of India 1951–1956).

The partitioning of the country after independence led to a huge influx of refugees from newly formed Pakistan. Refugees mainly arrived landless and were desperately trying to settle in urban areas to get involved in nonprimary activities. The government tried to settle them in towns by providing them with land for housing in newly established “Model Towns.” House prices increased unabated, because, on the one hand, the urban population was increasing and, on the other, the private construction industry, which was the major contributor in the provision of housing, was shrinking because of scarcity and the high prices of building materials. Slowdown in new house construction activity put pressure on the existing housing stock and this led to extraordinary rent increases. As an immediate relief measure, the government expanded the pre-World War II measure of the Rent Control Act in almost all major cities of the country, although it was otherwise levied only in Mumbai since 1918. Rent control further constrained the supply of rental houses in urban India.

Legislative controls on prices (such as the Rent Control Act, which deals with the acquisition of private housing by the government to fulfill the housing needs of government officials at regulated prices) proved to be major hurdles for private developers who were mainly involved in building activities and were not seeing any progress in the development of new housing, or expansion or upkeep of the existing stock. Increases in costs of building materials and labor during and after the World War II further extenuated the problem and made construction of new houses unprofitable. Lack of interest of private builders mandated government intervention, which was felt necessary to overcome acute shortages of housing. Initial steps were taken by the introduction of housing boards.

Urban public bodies and planners working with the government agencies were hesitant to accept the existence of slums and informal settlements in urban areas, and the focus of the

policy was forceful eviction, slum clearance, and strict imposition of development controls so as to allow standard-quality housing only. Though similar policy thinking prevailed in other developing countries with similar problems, the consequences were dire as it hindered any attempt to improve the living conditions of the urban poor.

While accommodation for industrial workers was supported with subsidies, and lower-income government servants were provided with public housing, others in the LIG were left to the fate of the market or to slum living. There was a realization among policy makers that the private sector was not in a position to supply housing for the LIGs, which led to suggestions that the state fill the gap and assist the construction of suitable houses for LIGs and MIGs (both in urban and rural areas). However, there was no serious implementation effort due to the lack of resource allocation and of staff capacity to design and deliver an appropriate program (Sivam and Karuppannan 2002).

The following were important programs introduced to meet the shortage of housing, as realized during the 1950s (Planning Commission of India 1951–1956):

- Housing for industrial workers: The Industrial Housing Scheme, formulated in 1949, provided subsidies to private employers for construction of workers' units under the condition that the rental charged to workers will not exceed 10% of their income. The problem of this scheme was that when public sector employees could not be provided with housing and had to rent in the private market, they were only provided rental assistance equal to 10% of their income. This amount later became insufficient as the market rents soared.
- Housing for lower- and middle-income groups: Though there were no explicit subsidies, encouragement was provided to private developers and cooperative housing societies to meet housing shortage in the market through a number of facilities:
 - *“Provision of suitable building sites, where possible, at reasonable cost;*
 - a. *Empowering the statutory housing boards to guarantee loans which a private builder may obtain from a bank or an insurance company to finance construction of buildings, the buildings in such cases being hypothecated to the housing boards;*
 - b. *Reorganizing the then existing system of distribution of essential building materials, such as steel, cement, coal, etc., and taking steps to reduce the high prices of these materials which are all subject to price controls, and, for this purpose, conducting necessary investigations; and*
 - c. *Provision on the lines of Section 39 of the Delhi and Ajmer Rent Control Act XXVIII of 1952, which exempts premises that were constructed between certain periods from the operation of the rent fixation law; and*
 - d. *Discouraging land holding in urban areas, for which purpose the taxation structure on vacant lands should be so designed as to make all land holding unprofitable”* (Planning Commission of India 1951–1956).

This led to releasing more land for development purposes.

- Reduce the cost of construction by using modern implements and machinery, and standardization of size, thus encouraging mass production of building elements such as bricks, doors, windows, and so on.

In 1950–1980, the industrial economy had taken root, with the share of manufacturing growing from 11% to 18% of the country's gross domestic product. The housing programs, which were

focused on providing housing for industrial workers, were directly contributing to campus-like industrial townships. However, the overall investment in housing, as a percentage of total planned outlay, remained low at between 1.5% and 2%.

During this time, the service sector of the economy was also growing at almost the same pace as manufacturing. On the supply side, housing programs were encouraging the production of new housing stock by overcoming challenges of high material and labor costs, and, on the consumer (or demand) side, there were provisions for subsidies and long-term financing options.

The 1950s and 1960s were a period of major institutional development. In these years, the government introduced state housing boards mandated to construct houses for allotment to public; the Ministry of Works, Housing and Supply (now MHUPA) at the center with responsibility for urban poverty, housing, and employment programs; the Central Public Works Department to carry out all centrally financed civil works; the National Buildings Organisation (NBO) with a mandate for technology transfer, experimentation, development, and dissemination of housing statistics; and the Town and Country Planning Organisation, a technical wing of the Ministry of Urban Development, with responsibility for preparing the Master Plan for Delhi and surrounding regions and to advise on the development of steel towns, river valley projects, and so on. With emphasis on reducing the cost of housing supply, the NBO was also tasked to develop low-cost housing designs and suggest ways to reduce costs through appropriate choice of building materials and efficient utilization of labor (Hingorani 2011). The low-cost movement contributed to the development of new designs and materials; however, its contribution in increasing housing supply remained weak, mainly due to lack of acceptance of these designs and materials by developers and home buyers.

India did not have an explicit national housing policy until 1988. However, a number of scattered attempts were made to pave a path toward formulation of a comprehensive policy in 1988. In 1957, in an attempt to streamline financing for housing, the Minister for Works, Housing and Supply recommended establishing state housing corporations with the role to furnish debt finance for housing projects with the central government providing the required subsidy. This was a major step as the policy stance of the national government shifted from providing grants to individuals to assisting state and local governments who were far more aware of the situation on the ground (Hingorani 2011). The difficulty of such a devolution of responsibility, however, was that while the responsibility for implementation of housing schemes was increasingly devolved to state governments and their housing agencies, they remained dependent on the central government for funding. The period also saw policy moves to target subsidies to low-income households, promote the use of local building materials, and set up housing boards and other institutions to implement housing projects.

However, due to the lack of a coherent housing policy, housing was provided through a fragmented set of programs targeted at different income groups and demographics, lacking direction and continuity and at times overlapping in their scope and target participants. The programs initially focused on higher-, middle-, and lower-income groups and, in later programs, narrowed down their scope to the poor. This was also reflected in the 5-year plans during 1956–1966. The number of LIG households was so large that it became impossible to provide housing to them in a defined period and hence the concept of EWS was introduced in 1966 through the annual plans (1966–1969). Realizing that housing programs in isolation did not work, the recognition came that housing policies need to be contextualized within economic and industrialization policies (Hingorani 2011).

The Nehru era, particularly the 1960s, contributed significantly to the development of the housing institutional structure of the nation. Focus, though interventionist, was on land,

materials, construction, and finance. Policy makers recognized that the availability of sufficient and affordable land was central to the success of all housing schemes, and emphasis was placed on the preparation of master plans and regional plans for different categories of urban areas (Hingorani 2011). Emphasis was also placed on research and development with the objective to develop new and cheaper building techniques and on obtaining housing statistics to better inform programs in their development and evaluation. The creation of state housing boards with a mandate to stimulate construction was also given a push during this time. Recognizing that without adequate finance the level of housing activity by public authorities would be low, as was in the past, financial institutions with a mandate to provide financial assistance to metropolitan authorities, newly established state housing boards, and other urban institutions were set up.

A review of the period indicates that the top-down approach to housing provision, with heavy involvement by the central government in all aspects from land acquisition to construction and allocation, proved to have limited success. The new housing supply fell behind the demand as a result of failure in the implementation of programs, lack of funds, and rising construction costs (Sahu, Zachariah, and Baksi 2009). An assessment of these programs indicates that they did very little to benefit the intended target group. These programs did not involve potential beneficiaries in their design and, consequently, there was a mismatch between what was required and what was supplied. There were also cases of misappropriation of LIG houses by HIGs (Wadhwa 1988). The location of affordable housing, where land was available at lower cost which precluded most city locations, made them unattractive to LIGs. These locations were unsuitable for lower-income households as they necessitated long commutes to work, which added to the cost of living of the poor. These houses, however, were attractive to the HIGs as an investment property. The scale of the housing shortage was beyond the scope of any program and the subsidy involved made it very attractive for beneficiaries to get these houses, sell them off in the market at a substantial profit, and move back to the slums. Slum clearance schemes also faced problems and public resistance, and states often found the process of acquiring slum land tedious. Alternative sites to rehabilitate evicted slum dwellers were both expensive and difficult to find near cities. Rental housing was expensive and many slum dwellers found it hard to pay even the subsidized rent (Sivam and Karuppannan 2002).

The two main hurdles for the programs were the difficulty in land procurement and the lack of community involvement. Programs such as the 1954 Low Income Group Housing Scheme had high uptake in areas where affordable sites were available, while the success of programs where state governments found it difficult to procure and deliver sites was limited (Hingorani 2011). The lack of community involvement in project planning and design, restrictions on international investment, and the emergence of affordable forms of housing provision in slums during this period, also contributed to the failure of the programs (Sivam and Karuppannan 2002).

4.2 The Gandhi Era and the Green Revolution (1965–1990)

Regulatory restrictions on the economy increased during the Gandhi Era. India's economy experienced slow growth and extreme volatility between 1965 and 1981 (Sibal 2012). The government strongly intervened in market operations and the economic environment was highly regulated by policy and legislature. The major controls included regulation of domestic businesses with the Monopolies and Restrictive Trade Practices Act of 1969, nationalization of banking with the Banking Companies Act of 1969, controlled productivity through the Industrial Licensing Acts of 1970 and 1973, and check on foreign investment with the Foreign Exchange Regulation Act of 1973 (Sibal 2012). Overuse of regulatory powers by the government created tussles between market actors and regulators that resulted in the government imposing

emergency rule for 2 years during 1975–1977. The economic policies were largely adversarial for industries. At the same time, a huge proportion of the public budget outlay was earmarked for rural areas through capital expenditure and subsidies (Tiwari et al. 2015). All this together put pressure on government resources, and the private sector found the environment stifling.

During this time, the government changed its approach in dealing with housing. Whereas the majority of the preliberalization housing programs that were instituted prior to this period focused on direct delivery of houses to beneficiaries, there were two major initiatives that characterized the 1970s and the 1980s: the Environmental Improvement of Urban Slums Scheme in 1972 and the Sites and Services Scheme in 1980. These initiatives ushered in a complete change in the way slums were viewed. Given financial constraints and unsustainable levels of subsidies provided under previous programs in the 1970s—and the inefficiency of these programs to deliver—a view began to develop that publicly provided housing would not suffice to solve the slum problem (Mathur 2009). Increasing land and material prices, which worsened the affordability level of the target group, meant that increasingly larger subsidies would be needed to make housing affordable in the future (Hingorani 2011). Capital investment programs and subsidies focusing on rural areas had strained government finances, and the direct provision of affordable public housing for ownership was proving to be expensive. This shifted the housing development paradigm away from “redevelop existing slums through subsidies” to “in situ upgrading and ameliorating the living conditions of slum dwellers” or “providing land and infrastructure” so that the poor could build their homes on them. In the past, the size of house specified in programs had been too onerous, and, hence, to ease the delivery of housing through slum clearance schemes, norms were lowered to provide smaller-sized houses to beneficiaries (Wadhwa 1988). An incremental approach to provide access to transport, services, and secure tenure was gaining consideration in programs (Wadhwa 1988). A positive outcome of this change toward upgrading slums was that there was an implicit recognition of the investments made by the poor in their tenements, and, as Hingorani (2011) points out, this helped in “avoiding relocation” and “preserved their access to their livelihood and other essential social infrastructure.” A new partnership structure for sheltering the poor emerged where the government saw itself responsible for tenure, the location, and basic infrastructure, and the poor took on the construction and upgrading of their units (Wadhwa 1988).

During the pre-1970s period, the government was the only provider of financial support for house building through its various schemes for public housing. The government implemented its schemes through state housing boards that were responsible for allocating serviced land and construction of houses to individuals based on social equity principles (Tiwari 2012). The 1970s laid the foundations for growth in the housing finance sector. Housing finance institutions such as the Housing and Urban Development Corporation (HUDCO), the Housing Development Finance Corporation (HDFC), and the National Housing Bank (NHB) were set up to mobilize savings and other resources for channeling investment in housing. The issue of lack of financing was addressed from the demand as well as the supply side, particularly for middle- and higher-income groups, by providing housing loans for households as well as construction finance for developers. The mandate for the public sector company HUDCO was to assist and promote housing and urban development programs with government agencies, which it fulfilled by providing finance for sites and services and other house construction programs of housing boards. HUDCO’s social obligation required them to provide at least 55% of the credit to EWS and LIG households.

HDFC, set up as private sector entity, focused on retail lending based on market principles and targeted mainly middle- and high-income households. The success of HDFC led to the emergence of several housing finance companies (HFCs), either as private sector or joint

ventures with the government, banks, or insurance company sponsorship. An important event of the 1980s was the setting up of the NHB in 1987 with the objective of channeling formal sector resources into housing finance through the promotion of a sound, healthy, and cost-effective housing finance system.

The devolution of responsibility to provide housing to LIGs and EWS from the central government to the state governments and their housing boards also ushered in changes in the way these houses were financed. Cost recovery became a key feature of the programs, while the subsidies were earmarked for infrastructure or sanitation facilities. Residents were encouraged to invest in their houses (Wadhwa 1988). The reliance on subsidies was increasingly reducing and the programs were designed to meet affordability levels of beneficiaries. HUDCO provided loans to state governments, which supplemented internal funds of these governments in financing their programs. Another innovative mechanism to fund programs was cross-subsidization between HIG, MIG, and LIG housing.

The experience gained from the programs indicated that housing programs in isolation would not deliver, and it is important to link the shelter problems of the urban poor with programs that were aimed at addressing the lack of employment opportunities and access to basic services. Programs introduced during the 1980s gradually began to take a more holistic approach by integrating poverty alleviation programs with shelter programs (Hingorani 2011).

During this period, though the macroeconomic policies continued their bias toward rural, there was a growing recognition that urban poverty was different from rural poverty and that there was a distinction between urban and rural housing issues (Sahu, Zachariah, and Baksi 2009). This was also reflected in the programs. For example, the 1979 Integrated Development of Small and Medium Town (IDSMT) Program attempted to decentralize the urban concentration by developing urban infrastructure in small and medium towns. Policy making for the housing sector in India faced challenges as there had been no national policy. One of the most important developments of this period was the formulation of the 1988 National Housing Policy, which changed the course of housing programs in the 1990s by changing the role of government from a direct provider of finished housing, finance, or developed sites to that of a facilitator channeling private sector investment in housing and encouraging private-sector-led construction. The government's role was increasingly viewed as that of an organizer of a legal, regulatory, and financial framework within which housing could be developed and supplied by the private sector (Sahu, Zachariah, and Baksi 2009). Liberalization of the housing finance sector gained further momentum. To boost the flow of funds for housing, the Reserve Bank of India (RBI) issued guidelines that allowed the scheduled commercial banks to allocate 1.5% of their incremental deposits to housing. The regulator also required that 30% of these funds were lent directly to individuals and 70% were lent indirectly to agencies for augmenting the supply of serviced land, constructed units, and subscription to guaranteed bonds and debentures of the NHB and HUDCO. The involvement of insurance companies and scheduled commercial banks increased after the setting up in 1988 of the NHB, which floated separate HFCs to avail the NHB's refinance facilities and tax concessions (Tiwari 2012). The Life Insurance Corporation of India set up its own HFC in 1989 and the General Insurance Corporation in 1990.

The period, however, did not add much to improve housing conditions. Slum clearance programs continued throughout the 1970s and 1980s with affected people being resettled at peripheral locations. The homes that were provided did not meet the requirements of the affected people, which led these homes to eventually filter down to HIG and MIG households. The integrated approach though was promulgated in policy, remained ineffective because programs were fragmented, overlapping in their objectives, and often administered by different ministries or government departments that did not collaborate. Urban poverty alleviation programs remained isolated from other related programs, which reduced their effectiveness

(Hingorani 2011). There were also other programs. Program structure and implementation mechanisms went through frequent changes. Community involvement in designing and implementing programs was minimal (Mathur 2009). The biggest contribution of the period was in the housing finance sector as the housing finance market deepened, which had positive benefits particularly for MIG and HIG households (Wadhwa 2009).

4.3 Postliberalization (1991–2000)

Sluggish progress in addressing deteriorating housing conditions in cities, urbanization trends, worsening affordability, and the growing recognition of the importance of urban centers in the nation's economy brought the policy focus during the 1990s on to cities, and it was acknowledged that urban centers required a different managerial and policy approach than the rural areas (Hingorani 2011). The role of the government in the housing sector as an enabler, away from direct provider of housing or serviced sites, as was proposed by the 1988 National Housing Policy, was further reinforced. Efficient legislative, legal, and financial frameworks for private sector participation were created. It was also recognized that the market alone would not be able to solve housing problems, particularly for the disadvantaged. The policy focus of the government began to concentrate on BPL households, households headed by women, and scheduled castes and/or tribes (Hingorani 2011). These households would require direct intervention and subsidies.

While the devolution of responsibility regarding housing had begun in earlier decades, the power distribution between the three levels of government (central, state, and local) realigned more broadly with the 74th Constitutional Amendment in 1992. Numerous responsibilities for functions such as urban poverty alleviation, slum upgrading, housing, management of urban services, and the protection of weaker sections were transferred to the urban local bodies (ULBs). The problem, however, was that while responsibilities with regard to services were devolved, the devolution of financial resources had been slow, which restricted the capability of ULBs to deliver on new responsibilities. ULBs lacked the capacity to augment financial resources to design and deliver programs. This became the focus of numerous urban reforms in the following years (Hingorani 2011). The dependency of municipalities on financial resources from higher levels of government did not decrease, which often, due to political misalignments, posed a challenge. Historically, a number of agencies and parastatals were involved in dealing with urban issues including housing, and that multiplicity continued. In slum improvement programs, the range of agencies involved included slum boards, housing boards, development authorities, and municipal bodies, which led to problems in implementation.

During the 1990s and the 2000s, the housing finance market deepened further with liberalization and a number of commercial banks in the private and public sector set up their housing finance arms (Sahu, Zachariah, and Baksi 2009). Lower interest-rate regimes, rising disposable incomes, relatively stable property markets, fiscal incentives offered by the government, and the viability of housing finance as a business, as demonstrated by HDFC, triggered the entry of banks in the housing finance sector. These fiscal incentives for housing finance included income tax exemption for builders of small-sized units, tax exemption to any housing project that was an integral part of a highway project, tax deductibility of interest paid on housing loans up to a certain limit, exemption from capital gains if a residential property was held for more than 3 years before sale and the capital gains were invested in residential property or other specified asset, tax benefits to HFCs, and direct subsidies to BPL households for the purchase of housing units (Tiwari and Parikh 2012). Households became far more aware and comfortable with debt for housing as sources available for housing finance evolved. Regulatory guidelines required domestic scheduled banks to extend a minimum of 40% and foreign banks 32%, respectively, of their net bank credit to priority sectors, which included

housing. To strengthen the finances of ULBs, these entities have been encouraged to access capital market financing through issuance of bonds or public–private partnerships (PPPs). Though these were positive developments, due to their weak financial position, most municipalities were unable to access bond markets or raise resources through debt.

There were attempts made to integrate urban poverty alleviation programs with shelter programs (Hingorani 2011). For example, Environmental Improvement of Urban Slums (EIUS) was integrated with an urban basic services scheme, and a new program called Urban Basic Services for the Poor was launched. The new program focused on health and education and also recognized that secure tenure and designing cost-recovery mechanisms for shelters were crucial to the long-term sustainability of the program (Mathur 2009). The year 1997 saw the launch of the National Slum Development Program (NSDP) for upgrading slums and was funded by state and central funds. To address the fragmented nature of earlier programs, the shelter upgrading components of Nehru Rozgar Yojana (the Nehru employment scheme), and the Prime Minister's Integrated Urban Poverty Eradication Programme were incorporated into the NSDP. The program encouraged the involvement of nongovernment organizations, community-based organizations, and private entities (Mathur 2009).

While there was encouragement for the state government and municipalities to develop programs for addressing urban poverty and shelter issues, the central government was shifting its attention to more focused programs directed toward BPL households. In 2001, a centrally sponsored program, Valmiki Ambedkar Awas Yojana (VAMBAY), was launched which entailed the construction and upgrading of houses for BPL households. The program also included the provision of basic amenities through the construction of community toilets. It was implemented through a 50% central government subsidy, with the remaining contribution coming from state or local governments or through a loan from HUDCO. The implementation was the responsibility of the state governments who were required to arrange land and organize debt (Hingorani 2011). The financial share that states could obtain as a loan from agencies like HUDCO was in proportion to the size of their slum population (Mathur 2009).

A number of other programs were launched during this period. The Night Shelter Scheme for Pavement Dwellers, launched in 1990 and implemented by HUDCO in conjunction with municipalities, provided loans and subsidies for the construction of night shelters and sanitation facilities for pavement dwellers. An ambitious plan, the Two Million Housing Programme, was launched in 1998. This was a loan-based scheme aimed at facilitating the construction of 2 million houses every year using funding from HUDCO and HFIs (Hingorani 2011).

An evaluation of the liberalization period indicates that substantial progress was made in deepening housing finance, which had a positive impact on access to homeownership for MIGs and HIGs. However, little progress was made in the regulatory framework governing land. Formal finance, however, was inaccessible to the urban poor because it required clear title to property, approval of building plans by the local authority, and a regular stream of monthly income (Tiwari and Debata 2008).

4.4 Economic Globalization (Post-2000)

The post-2000 macroeconomic environment of economic globalization reinforced the centrality of cities. The global focus shifted from competitiveness of nations to competitiveness of cities. Given this background, a major urban-focused capital investment and urban reform program called Jawaharlal Nehru National Urban Renewal Mission (JNNURM) was launched in 2002. JNNURM sought to ameliorate bottlenecks impeding cities by modifying laws that had distorted the functioning of land and housing markets, to formalize the property right system, and to put in place efficient governance structure at the local level. The program also aimed to reform the

property tax system, rationalize tariffs for services to augment local government finances, and boost investment in urban infrastructure. JNNURM also mandated to repeal the Urban Land (Ceiling and Regulation) Act, which had locked tracts of land in legal litigation and had hindered the supply of housing.

A major program for slum dwellers and the urban poor, Rajiv Awas Yojana (RAY), was launched in 2011, with the preparatory phase during 2011–2013 and the implementation phase in 2013–2022. The objective of the program is to bring existing slums into the formal system with access to basic amenities and to develop institutional and market mechanisms to tackle shortages in land and housing. The program is a reform-linked slum redevelopment and affordable housing program with the assistance of the central government. The reforms promulgated under RAY are tenure security for slum dwellers, reform to the rental and rent-control laws regarding urban housing, and review and amendment to the legislation, rules, and regulations governing urban planning and development structures and systems to meet the needs of urbanization. RAY envisages creating social/rental housing, building affordable housing stock in peri-urban areas, and undertaking slum rehabilitation projects jointly with the private sector. Despite its superior architecture, RAY did not get much response from ULBs and cities (Planning Commission of India 2012–2017). In June 2015, RAY was replaced by a new program called Housing for All (Urban) Mission. This mission will provide central assistance to ULBs and other implementing agencies through states and/or UTs for in situ rehabilitation of existing slum dwellers using land as a resource through private participation, interest rate subsidies on loans for housing of EWS and LIG households, financial assistance from the central government for the development of affordable housing by states and ULBs in partnership with the private sector, and subsidies for beneficiary-led individual house construction or enhancement for EWS households.

5 AN EVALUATION OF HOUSING POLICIES

The impact of the various programs on the condition of housing in India since independence has been limited. As a share of the total budget outlay, investment in housing has been stagnant at about 2%. The physical assessment of various housing programs is difficult, because the data in terms of output of new housing stock and upgraded units for each program are not available. An overall assessment of the housing stock in the country, in conjunction with budgetary allocations, however, indicates that, while most of these programs were well intended in terms of their objectives, they could not deliver much due to the lack of financial resources. Dependency on the central government for funds encouraged a top-down approach, with the programs being formulated at the national level on the basis of feedback from the states, with marginal inputs from the operational agencies and staff directly working at the grassroots level. At times, ad hoc interventions were made, driven often by political and administrative objectives rather than economic considerations and the on-the-ground situation. This resulted in a multiplicity of programs with varying components directed at the same target group and lack of convergence or proper coordination, sequencing, and linkages among them. The programs also lacked public participation in their planning and implementation. Since the 74th Constitutional Amendment in 1992, attempts have been made to devolve the program formulation and implementation role to municipalities. However, the financial devolution is not yet complete because of the lack of resources for implementation of programs.

In the different periods discussed earlier, total budget outlays for housing programs for the national and state governments were small, emphasizing that housing was considered largely a private activity. Among the government programs, the largest impact on housing stock was made by public sector entities that constructed houses for their employees. In the time since independence until 1970, about 400,000 housing units were added through government

schemes in urban areas (Planning Commission of India 1969–1974). A major achievement of this period was in terms of the development of cooperative societies at the state level to develop housing and the establishment of the NBO to undertake research on cheaper building materials. The construction and upgradation programs in rural areas that focused on landless laborers did not make much progress. The bigger challenge was to get land and the appropriate layout not only to meet housing needs but also to address problems such as water and sanitation. The surplus land that was acquired in the rural areas after the abolition of intermediary tenures or enforcement of ceiling laws, or consequent on the consolidation of holdings could not be utilized because a large tract of such land was locked in legal litigation.

The next decade (1970–1980) saw an additional 280,000 housing units added in urban areas, of which the major portion was undertaken by the public sector for its employees and some for EWS and LIG households. The major progress of this decade was in rural housing. The political ideology was also shifting in favor of rural, as discussed earlier, and this was reflected in the programs as well. A total of 7.7 million sites were distributed and about 560,000 houses were constructed under the Rural House Site-cum-House Construction Scheme (Planning Commission of India 1980–1985). The lack of public resources was well understood by policy makers and programs attempted to direct these resources toward the EWS of the community. A major development of this period was the development of the institutional structure for housing finance in the country to promote and encourage self-help housing. The direct role of the government in the provision of housing was shifted to that of provider to facilitator. The focus of governments was to augment resources of public agencies such as HUDCO and state housing boards to enable them to provide infrastructure facilities as a means of encouraging housing in the private sector. The lesson from the burgeoning burden of subsidies in the economy (particularly in the agriculture sector) was that subsidies were avoided in these programs. Instead, efforts were made to secure a reduction in the costs in public housing schemes by reviewing building standards and by using cheap and alternative building materials. Research in building materials was paramount.

During 1980–1985, the share of public sector involvement in housing decreased further. The total number of houses added to the stock through public schemes was about 170,000 in urban areas and about 190,000 in rural areas. Nearly 5.4 million rural housing sites were allocated. The role of the government was more in institutional development to facilitate private activities in housing. The role of financial institutions such as HUDCO and HDFC, as well as cooperative institutions, was further enhanced in providing finance for all income groups. While these institutions were focused in urban areas, the direct role of the government in providing housing in rural areas was still considered necessary. Recognizing the need for mass production of houses, the building codes started evaluating prefabricated technologies for inclusion in Indian codes.

During 1985–1992, total investments in housing for the central and state governments were about 1.3% of the total public outlay (Planning Commission of India 1985–1990). The actual expenditure was far less than the outlay. Given that allocation of land is a state matter, a large part for fulfilling program commitments for housing was bestowed on states. The responsibility to allocate financial resources was also left to states and they struggled. An estimated 1 million housing units were either upgraded or constructed per year under various programs in the public sector during this period. The average amount of assistance per housing unit was a meagre Rs5,000, which implies that most of the assistance was for upgrading. Although the focus of the housing programs was on EWS, the resources deployed were not sufficient to make any significant impact. Consequently, the housing gap continued to widen. The success story of this period was with regard to the strengthening of housing finance institutions. The public sector housing finance institution, HUDCO, financed the construction of about 2 million

houses. The Building Materials and Technology Promotion Council, which had the mandate to reduce construction costs through the promotion of low-cost materials and development of innovative building materials and technologies, identified 200 “building centers” around the country, and 70 of these became operational.

During 1992–1997, an estimated 2 million housing units were constructed, of which 1.4 million were for EWS and LIG households (Planning Commission of India 1992–1997). The actual progress was short of the government’s planned projections. The main achievement of this period was the establishment of mechanisms to finance housing for various income group households. These mechanisms included a refinance facility from the NHB for agencies involved in EWS and LIG housing. The movement of establishing “building centers” expanded further and 239 centers became functional. The rural housing program Indira Awas Yojana (IAY) contributed significantly to the rural housing stock. During 1985–1997, a total of 3.7 million houses were constructed. The IAY is largely a central government program, and the financial resources are shared between the central and state governments according to a 80:20 ratio.

During the 2000s, LIG housing was provided through Basic Services for Urban Poor (BSUP) and Integrated Housing and Slum Development Programme (IHSDP) components (later RAY) of JNNURM. However, only 1.6 million housing units could be sanctioned under this program between 2002 and 2012. The biggest challenge that this program faced was the scarcity of suitable land, which the Planning Commission of India (2012–2017) attributes to the suboptimal land-use patterns, largely induced by the regulatory regime in place, the lack of long-term urban planning, and the lack of a participatory planning process to determine the most efficient use of parcels of land.

The results and reviews of JNNURM have been mixed, and the suitability of some of the measures it adopted has been questioned. The program remained fragmented and project-based with different aspects of the program involving separate ministries at the central level and being implemented in silos at the local level. There was a lack of community participation in the design, planning, or implementation stages of its projects. The lack of community consultation, particularly in the case of resettlement, led to delays in housing delivery and a selection of projects that were not best suited to the needs of beneficiaries (Hingorani 2011). The project approach favored new construction over in situ redevelopment, despite JNNURM priority given to in situ redevelopment. Delays in implementing such programs led to cost escalations, which, in turn, meant housing was not delivered on the required scale and became unaffordable to the target demographic. A key factor in enabling affordability is extending credit facilities that are accessible and suited to the needs of the urban poor. However, microfinancing options have largely been ignored by JNNURM. The land reforms that were aimed to be achieved have been inadequate. The city development plans, which were developed by cities to access JNNURM funds, are divorced from the urban planning process. JNNURM lacked a clear resettlement policy. Projects funded under the Urban Infrastructure and Governance (UIG) submission required the possible eviction of slum dwellers, in which case clear policies on their rehabilitation were necessary (Hingorani 2011). The bigger problem was that there was a lack of capacity at the central, state, and ULB levels for implementation and program guidance was a major stumbling block for JNNURM. The expenditure on capacity building has been low; several state governments have complained about funding delays, which mean they rely heavily on externally funded capacity-building projects. JNNURM encourages local governments to borrow in commercial financial markets, but few have been able to do so. Similarly, few have augmented their finances through user charges, monetization of urban land, and property taxes as envisioned. From a shelter and basic services perspective, the JNNURM program has had limited impact.

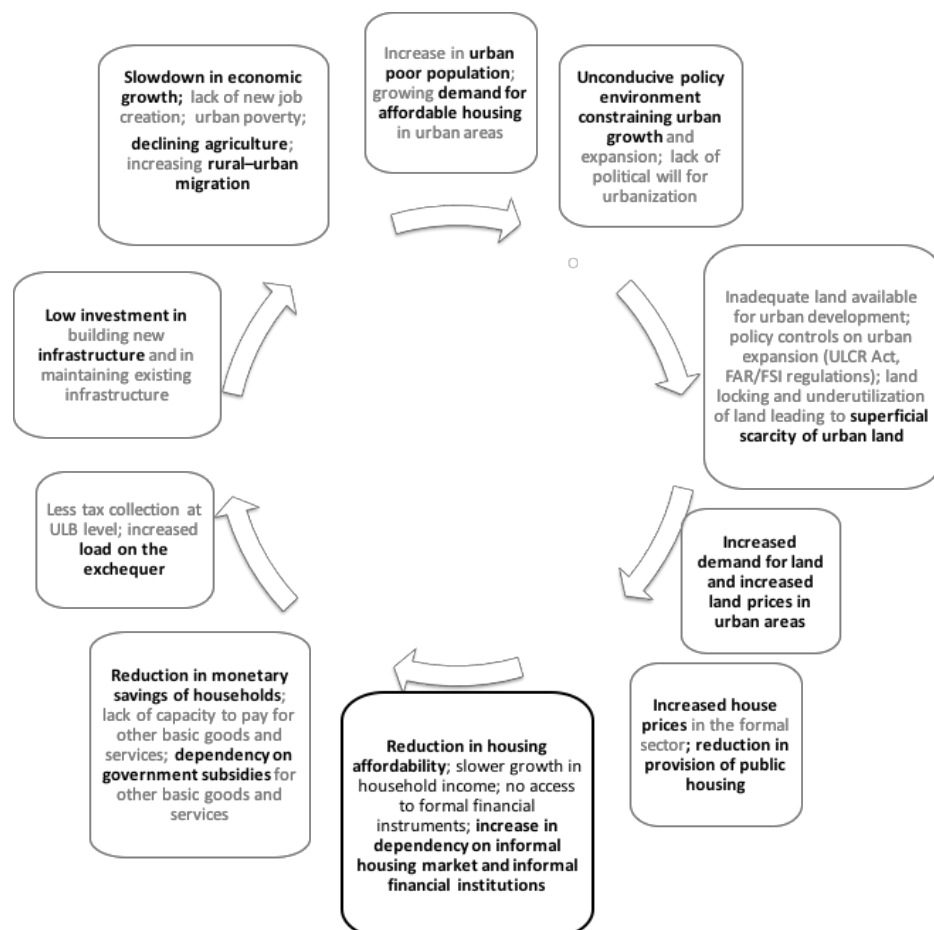
The RAY program had a short implementation span before it was replaced by a new program, Housing for All (Urban) Mission, which was launched in 2015. According to the MHUPA summary statement on the RAY, between 2013 and 2015, a total of 117,707 houses were sanctioned and only 3,378 were completed (MHUPA 2015). The Housing for All Mission aims to build on RAY and fully address the housing shortage by 2022. However, the initial budget allocation by the central government for the program for 2015–2016 is Rs40 billion, which is too small to have any major impact (MHUPA 2015).

6 THE LESSONS

With approximately two-thirds of the country's population living in rural areas, India is urbanizing, albeit with reluctance, as evidenced by policies toward urban areas. Starting as an agrarian economy after independence, the initial conceptualization of urbanization was anti-rural. The lack of emphasis on urbanization at the political and policy levels has resulted in the emergence of unplanned cities that lack the basic infrastructure required for better quality of living and work environments for their inhabitants. Urbanization in India has mainly been an imposition, rather than a desired outcome, of the changing economic scenarios that have been consistently moving away from an agricultural economy. Unplanned cities are not painting a very impressive picture of the urban landscape, and reluctance toward urbanization persists. The lack of development of urban centers, new and existing, is posing a challenge to the secondary and tertiary sector economies, which together constitute 80% of gross domestic product. It is important to understand the vicious cycle of reluctant urbanization and economic decline, because it severely impacts the quality and quantity of basic infrastructure and services, including housing, in urban centers. The situation is explained in Figure 6.

Superficial scarcity of land due to reluctance toward urbanization, as shown in Figure 6, caused land prices to increase, making land procurement expensive for housing purposes. In a reverse scenario, where urbanization was supported by a responsive policy regime, it led to economic growth and household income growth and, thus, increased the household's capacity to pay for a house and other basic services in proportion to the increases in the prices of these basic goods.

Figure 6: Vicious Cycle of Economic Slowdown, Slow Urbanization, and Declining Housing Affordability



FAR = floor area ratio, FSI = floor space index, ULB = urban local body, ULCR Act = Urban Land (Ceiling and Regulation) Act.

Source: Authors.

This paper discusses the range of housing policies and programs that have been formulated in India since independence. However, because housing was viewed largely as a private activity, these programs remained underresourced. Consequently, their impact in adding new housing stock was limited. We offer a number of lessons that can help break the vicious cycle that is presented in Figure 6:

- (i) **Constitutional status for housing:** Though a continuous discussion is happening in India over the issue, the interpretation of housing as an enforceable right is ambiguous. Housing is not included as an obligatory function of the state or the central government under the Constitution of India. There is related mention of “economic and social planning” and “welfare of labor” under the concurrent list of the Constitution of India, but housing is not explicitly included as a basic good (Constitution of India 2006). One of the first and most important housing rights cases to go up to the Supreme Court in India was *Olga Tellis & Ors vs Bombay Municipal Corporation* on 10 July 1985. This case, for the first time, held that the right to livelihood and shelter is an important component of the Fundamental Right to Protection of Life and Personal Liberty. The Supreme Court order

laid down that the slum and pavement dwellers could be evicted only after arranging alternative accommodation for them. A spate of cases, vigorously following the *Olga Tellis & Ors* example, reached the Supreme Court in the 1990s, but they have not yet been able to establish the inclusion of housing as an enforceable right. A study of the most important Indian Supreme Court decisions on housing shows that its reliance on international human rights instruments has not been very extensive or consistent. The unclear constitutional status of housing has led to the formulation of a “weak” housing policy, which did nothing to improve the status of housing in the country because there was no binding obligation for the government to deliver affordable housing.

- (ii) **Land titles in India:** One of the constraints for procuring land for affordable housing has been the weak land titling system that is outmoded. India does not use the Torrens title system to record ownership and the present system is marred with opacity-rendering transactions that are challengeable in courts. Recent governments have tried to address this issue. One of the laws with profound implication for the housing market, and where most activity in recent years has happened, is the Guaranteed Land Titling Bill that ensures security of land titles in urban India. While the importance of “guaranteed land titles” cannot be understated for economic development, the bill is being pushed through the states (second tier of government in India) by the central government through an optional reform mandated to access central government finance for urban infrastructure development under JNNURM. This, at most, is a weak push and only a few states have enacted the bill so far. The incorporation of housing as a right will oblige the appropriate level of government to deliver on that right for LIG households by making available adequate resources. Of course, rights without remedy have little meaning and appropriate mechanisms to deliver on rights need to be developed.
- (iii) **Adequate financial resources for affordable housing programs:** One of the major reasons for the poor performance of most programs aimed at slum upgrading and construction of affordable housing has been that these programs were underresourced. The devolution of responsibility to provide housing to EWS and LIGs to municipalities and other ULBs without devolving financial resources further weakened the capacity of these programs to deliver. Housing for EWS and LIGs require government intervention either in the form of public rental housing or public ownership housing. Public housing (largely rental) has largely been nonexistent in India, except for a small proportion of rental housing provided by government agencies to its employees through various programs, as discussed earlier. Given that even the private rental housing is underdeveloped, approaches ranging from construction of public rental housing by the government on their own or through PPPs to direct demand or supply subsidies to incentivize construction of low-income housing would be required. The municipalities and other ULBs would need to be strengthened financially to enable them to deliver on the programs. The Twelfth Five-Year Plan (Planning Commission of India 2012–2017) proposes a three-pronged approach to strengthen municipal finances—create appropriate tax and nontax revenue streams, attract private capital, and monetize land.
- (iv) **Land for affordable housing:** Besides the land titling issue, discussed earlier, the procurement of land for affordable housing projects is a major constraint that housing programs face. Land in India is largely private and acquisition by public agencies has met with numerous challenges. Until 2013, the use of powers of compulsory purchase, to acquire private land for housing projects, was not possible because housing was not considered a public good. However, with the introduction of the new act of land acquisition in 2014, the opportunity for compulsory acquisition of private land for private development is available, although at a very high cost. The high cost of land, particularly

in urban areas, has further constrained the supply for affordable housing. Moreover, there is little available land within city limits. Where this land is available, it may not be of the size required for a larger development to build affordable units on. Therefore, the majority of land available for affordable housing development tends to be close to industrial corridors or on the outskirts of cities in peri-urban areas. However, these are the locations that are less suited to LIG and MIG residents who would typically rely on public transportation. Though the National Housing and Habitat Policy 2007 requires that 20%–25% of the floor area ratio of housing developments be set aside for lower-income housing, progress has been slow and limited to development projects on the periphery of large cities. ULBs or municipal or regional development authorities should take responsibility for providing land, preferably within city limits. Where this is not available, they should “create” new land by investing in expanding infrastructure corridors and developing basic sites that developers can purchase.

- (v) **Construction materials:** The government has promoted research on developing low-cost building materials through the NBO and later through the Building Materials and Technology Promotion Council. A number of “building centers” have been set up across the country, as discussed earlier. Tiwari (2001) demonstrates that the cost reductions by adopting these materials are quite substantial when compared with traditional building costs. However, these technologies cannot reach the stage of mass adoption. The possible reasons for the lack of response to these materials are noninclusion of these materials in Indian building codes, nonavailability of labor skilled in using low-cost technologies, and reluctance of developers and households to adopt these materials and technologies. There were neither strong incentives offered by the government for the adoption of low-cost materials nor disincentives for using bricks for construction. Market penetration of these materials has also been poor. As Tiwari (2001) demonstrates, low-cost building materials and technologies can reduce the cost of housing substantially without a reduction in the structural quality of the housing. Further, for resource-constrained programs, these materials and technologies can provide much greater value for money.
- (vi) **Devolution of power to local governments:** The capacity of local governments has hampered the delivery of housing programs. If the 74th Constitutional Amendment Act (CAA) was the game changer for local governments, it is probably time for the next generation of legislative amendments in local governance. The two areas that the 74th CAA did not address are financial devolution and greater clarity on the mechanisms of governance. Unless ULBs are provided with the funds to discharge the functions available to them, local governance will continue to be dictated by state governments. The High Powered Expert Committee (HPEC 2011) recommended financial devolution directly from the central government to the ULBs. This is probably one instrument of governance that can address multiple issues—predictability of funds transfer, better leverage of funds, and easing of the grip of state governments on ULBs. The second area of legislative reform is regional governance. While the 74th CAA referred to the need to set up metropolitan or district planning committees, these have remained more a paper exercise. Clarifying the roles of regional entities and providing them with the statutory backing to drive a regional transformation agenda can go a long way in removing the ambiguities around regional development.
- (vii) **Market segmentation:** One of the conundrums of housing markets in India is that, on the one hand, there is a huge shortage while, on the other, the 2011 Census 2011 reported that 8% of houses are lying vacant. While most megacities have to deal with slums, they also have new housing inventory, either unsold or vacant. The problem

arises because the development sector in India has catered either to the upper-middle or high-income households. The use of “black money” to buy real estate is also a prevalent practice in India. Recent government regulations to curb the use of “black money” in real estate will curtail investor-led demand for luxury housing.

- (viii) **Institutions for Housing for All:** Although the physical performance of housing programs in India has been dismal, the development of institutions has been substantial. India has created an extensive network of state-level housing boards and metropolitan authorities with capacities to develop housing. The research network of building centers to develop materials and technologies using locally available materials is also extensive. The municipalities and other ULBs are the functioning democratic institutions at the local level. These institutions should be revitalized and reoriented to deliver on affordable housing.

REFERENCES

- Deepak Parekh Committee. 2008. *Affordable Housing for All*. Delhi: National Real Estate Development Council under the Ministry of Housing and Urban Poverty Alleviation. <http://www.naredco.in/pdfs/report-high-level-task.pdf> (retrieved on 4 Jan 2015).
- Government of India. 2006. Constitution of India. Seventh Schedule, Article 246. doi:12/12/2014.
- Government of India, Centre for Good Governance. 2003. *Housing for the Poor in India*. Delhi: Centre for Good Governance. <http://www.cgg.gov.in/workingpapers/WP-4-PKM-Housing%20for%20the%20Poor.pdf> (retrieved on 6 Dec 2014).
- Government of India, Ministry of Home Affairs. 2011. Census of India. <http://www.censusindia.gov.in> (retrieved on 4 Dec 2014).
- Government of India, Ministry of Housing and Urban Poverty Alleviation (MHUPA). 2013. *Affordable Housing in Partnership: Scheme Guidelines*. New Delhi: MHUPA. http://mhupa.gov.in/w_new/ahp-guidelines.pdf (retrieved on 2 Jan 2015).
- Government of India, Ministry of Housing and Urban Poverty Alleviation, National Buildings Organisation (NBO). 2007. *Report of the Technical Group on Estimation of Urban Housing Shortage*. New Delhi: Government of India, Ministry of Housing and Urban Poverty Alleviation. <http://mhupa.gov.in/ministry/housing/housingshortage-rept.pdf> (retrieved on 29 Dec 2014).
- . 2012. *Housing Data Tables*. Delhi: Government of India, Ministry of Housing and Urban Poverty Alleviation. http://www.nbo.nic.in/Images/PDF/housing_data_table.pdf (retrieved on 19 Dec 2014).
- . 2013. *State of Housing in India: A Statistical Compendium, 2013*. http://www.nbo.nic.in/Images/PDF/Housing_in_India_Compendium_English_Version.pdf (retrieved on 19 Dec 2014).
- Government of India, Ministry of Statistics and Programme Implementation (MOSPI). 2011. *Selected Socio-Economic Statistics, India 2011*. New Delhi: MOSPI. doi:03/12/2014.
- Government of India, Ministry of Statistics and Programme Implementation, National Sample Survey Office (NSS). 2002. *Report No. 488: Housing Condition in India, Housing Stock and Construction*. Delhi: NSS. mail.mospi.gov.in/index.php/catalog/117/download/1378 (retrieved on 19 Dec 2014).
- Government of India, Ministry of Urban Development, High Powered Expert Committee (HPEC). 2011. *Report on Indian Urban Infrastructure and Services*. Delhi: HPEC. <http://icrier.org/pdf/FinalReport-hpec.pdf> (retrieved on 4 Jan 2016).
- Government of India, Planning Commission of India. 1951–1956. *First Five Year Plan*. Chapter 35: Housing. New Delhi: Government of India. doi:11/12/2014
- . 1956–1961. *Second Five Year Plan*. New Delhi: Government of India. <http://planningcommission.gov.in/plans/planrel/fiveyr/index2.html> (retrieved on 18 Dec 2014).
- . 1969–1974. *Fourth Five Year Plan*. Chapter 19: Regional Development, Housing and Water Supply. New Delhi: Government of India. <http://planningcommission.gov.in/plans/planrel/fiveyr/index4.html> (retrieved on 18 Dec 2014).

- . 1980–1985. *Sixth Five Year Plan*. Chapter 23: Housing, Urban Development and Water Supply. New Delhi: Government of India.
<http://planningcommission.gov.in/plans/planrel/fiveyr/index6.html> (retrieved on 18 Dec 2014).
- . 1985–1990. *Seventh Five Year Plan*. Volume 2, Chapter 12: Housing, Urban Development, Water Supply and Sanitation. New Delhi: Government of India.
<http://planningcommission.gov.in/plans/planrel/fiveyr/index7.html> (retrieved on 18 Dec 2014).
- . 1992–1997. *Eighth Five Year Plan*. Volume 2, Chapter 14: Housing, Water Supply and Sanitation. New Delhi: Government of India.
<http://planningcommission.gov.in/plans/planrel/fiveyr/index8.html> (retrieved on 18 Dec 2014).
- . 2012–2017. *Twelfth Five Year Plan*. Volume 2 - Economic Sectors. New Delhi: Government of India.
http://planningcommission.gov.in/plans/planrel/fiveyr/12th/pdf/12fyp_vol2.pdf (retrieved on 19 Dec 2014).
- . 2013. *Press Note on Poverty Estimates, 2011–2012*. New Delhi: Government of India.
http://planningcommission.nic.in/news/pre_pov2307.pdf (retrieved on 3 Jan 2015).
- Hingorani, P. 2011. *Revisiting Upgrading: Low-Income Housing and Infrastructure*. Mysore: Indian Institute for Human Settlements (IIHS).
<http://www.idfc.com/pdf/publications/Paper1-Housing-Policy-Review-Final.pdf> (retrieved on 18 May 2015).
- Jones Lang LaSalle (JLL). 2010. *Upscaling Indian Real Estate: Ushering in a Decade of Opportunities*. Delhi: JLL. <http://www.joneslanglasalle.co.in/india/en-gb/Research/Upscaling%20Indian%20Real%20Estate-JLL.PDF?4b9a5bef-98f1-4b15-a0cb-c6aca29e1928> (retrieved on 3 Jan 2014).
- Kumuda, D. 2014. Homeless Population in India: A Study. *Global Journal for Research Analysis* 3(8): 54–55.
http://theglobaljournals.com/gra/file.php?val=August_2014_1408104924__16.pdf (retrieved on 20 Dec 2014).
- Mathur, O.P. 2009. *Slum Free Cities: A New Deal for Urban Poor*. The National Institute of Public Finance and Policy (NIPFP). http://indiancities.berkeley.edu/2012/docs/Mathur-Final_Poverty_Rep.pdf (retrieved on 17 Oct 2015).
- MHUPA (2015), Rajiv Awas Yojana, Progress Reports, Ministry of Housing and Urban Poverty Alleviation, http://mhupa.gov.in/User_Panel/UserView.aspx?TypeID=1313 (retrieved 7 March 2016).
- Sahu, G., Y. Zachariah, and S. Baksi. 2009. *National Level Background Document on Urban Issues and Concerns: Laying Foundation for Urban India Reforms Facility (UIRF) with Focus on Small and Medium Towns in India*. Mumbai: Urban India Reforms Facility, School of Habitat Studies, Tata Institute of Social Sciences.
<http://urk.tiss.edu/images/pdf/National-Level-Background-Document.pdf> (retrieved 6 Jan 2016).
- Sibal, R. 2012. *The Untold Story of India's Economy*. London: LES Ideas.
<http://grammatikhilfe.com/IDEAS/publications/reports/pdf/SR010/sibal.pdf> (retrieved 28 Apr 2015).

- Sivam, A., and S. Karuppannan. 2002. Role of State and Market in Housing Delivery for Low-income Groups in India. *Journal of Housing and the Built Environment* 17(1): 69–88.
- Tiwari, P. 2001. Energy Efficiency in Building Construction. *Building and Environment* 36(10): 1127–1135.
- . 2012. Mortgage Market, Character and Trends: India. In *International Encyclopedia of Housing and Home, Volume 4*, edited by S.J. Smith, M. Elsinga, L. Fox O'Mahony, S.E. Ong, S. Wachter, and A.B. Sanders. Oxford: Elsevier. pp. 451–458.
- . 2016. *The Towers of New Capital: Mega Townships in India*. Hampshire: Palgrave.
- Tiwari, P., and P. Debata. 2008. *Mortgage Market in India*. London: Wiley Blackwell.
- Tiwari, P., and J. Parikh. 2012. Global Housing Challenge: A Case Study of CO₂ Emissions in India. *SPANDREL Journal* 5: 96–104.
- Tiwari, P., R. Nair, P. Ankinapalli, J. Rao, M. Gulati, and P. Hingorani. 2015. *India's Reluctant Urbanization: Thinking Beyond*. London: Palgrave Macmillan.
- Wadhwa, K. 1988. Housing Programmes for Urban Poor: Shifting Priorities. *Economic and Political Weekly* 23(34): 1762–1767.
- . 2009. *Affordable Housing for Urban Poor*. New Delhi: National Resource Centre, School of Planning and Architecture, New Delhi.
<http://www.spa.ac.in/NRC/ThemePaperAffordableHousing.pdf> (retrieved on 3 Jan 2015).
- World Bank. 2015. Data: Population Total. <http://data.worldbank.org/indicator/SP.POP.TOTL> (retrieved on 15 Jun 2015).