

# Estimating Rural Housing Shortage

ARJUN KUMAR

The working group on rural housing for the Twelfth Five-Year Plan estimated the rural housing shortage in India to be 43.13 million in 2012. Using the latest data sets – Census 2011 and the National Sample Survey housing condition round for 2008-09 – and the improved methodology used by the technical group on urban housing shortage, this paper re-estimates the rural shortage to be 62.01 million in 2012. Households living in temporary houses and in congested conditions were found to be mainly responsible for the rural housing shortage. The results suggest the need for holistically focusing on eradicating shelter deprivation in rural India and contributing to an enhancement of the quality of life of the people.

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Arjun Kumar ([arjun40\\_ssf@jnu.ac.in](mailto:arjun40_ssf@jnu.ac.in)) is with the Centre for the Study of Regional Development, Jawaharlal Nehru University, New Delhi, and a doctoral fellow at Indian Council of Social Science Research, New Delhi.

## 1 Introduction

Shelter is a basic human need, next only to food and clothing. Access to shelter and adequate and affordable housing are crucial to well-being as they contribute to the physical and material comfort of the population and enhance its quality of life. Its importance has been highlighted over the years by the United Nations, ever since the Universal Declaration of Human Rights in 1948, and reiterated by the World Bank, the Asian Development Bank, and the like.

In India, providing rural housing through the Indira Awaas Yojana (IAY) has been incorporated as one of the six components of the Bharat Nirman programme of the government of India. The IAY is a flagship scheme of the Ministry of Rural Development that endeavours to provide houses to below the poverty line (BPL) families in rural areas. The primary objective of the IAY is to help in constructing/upgrading dwelling units of rural BPL households belonging to members of the scheduled castes/scheduled tribes (scs/sts), minorities, and non-scs/sts, and freed bonded labourers by providing them financial assistance as a lump sum (Ministry of Rural Development 2013).

The working group on rural housing for the Twelfth Five-Year Plan (WGRH-12), constituted by the Planning Commission in 2011, estimated there were 173.78 million rural households in 2012 and that the rural housing shortage was 43.13 million units. The WGRH-12 brought out these estimates for the Twelfth Five-Year Plan (2012-17) even before 2011 Census data was available, thereby leading to problems from the use of old data sets (primarily from the working group on rural housing for the Eleventh Five-Year Plan, or WGRH-11, based on various censuses and National Sample Survey, or NSS, housing condition rounds data for 2002). It also suffers from serious limitations in estimation procedures such as double counting and the methodology used to estimate the factors taken into account while assessing the housing shortage.

This paper re-estimates the rural housing shortage in 2012 using the latest data sets – the Census of 2011 and NSS housing condition rounds unit record data for 2008-09 – and an improved methodology (capturing congestion based on the privacy factor), and the estimation procedure used by the technical group on urban housing shortage, 2012-17 (TG-12). This paper also compares these two estimates of rural housing in 2012 and analyses the differences in the estimates of the various factors for assessing housing shortage. Based on the findings, it also seeks to suggest measures to eradicate shelter deprivation and enhance the quality of life in rural India.

**Table 1: Estimation of the Rural Housing Shortage by Working Group on Rural Housing for the Twelfth Five-Year Plan**

Factors Taken into Account for Assessing Housing Shortages	Shortage (in millions)
1 Number of households not having houses in 2012 Number of households (173.78 million) – Number of housing stock (169.63 million) in 2012, based on calculations of the working group on rural housing for the Eleventh Five-Year Plan (WGRH-11) by projecting the exponential growth rate as estimated from the 1991 and 2001 Census figures at the rate of 2.1% and 2.09% for households and housing stock, respectively.	4.15
2 Number of temporary houses in 2012 Number of housing stock – Number of permanent houses (pucca and semi-pucca), based on calculation of the WGRH-11 by projecting the exponential growth rate estimated from the 1991 and 2001 Census figures.	20.21
3 Shortage due to obsolescence in 2012 4.3% x number of households in 2012 (173.78 million) – Obsolescence factor of 4.3% is based on data of 58th round of the NSS. Houses that were more than 80 years old and those with a lifespan of 40 to 80 years that were of bad structural quality were considered obsolete.	7.47
4 Shortage due to congestion in 2012 6.5% x number of households in 2012 (173.78 million) – Congestion factor of 6.5% of households was estimated based on 2001 Census data of the number of couples not having separate rooms.	11.30
<b>Total housing shortage in 2012</b>	<b>43.13</b>
5 Additional housing shortage arising between 2012 to 2017 Number of households projected for 2017 over 2012 – Number of excess housing stock projected for 2017 over 2012, based on calculation of the WGRH-11 by projecting the exponential growth rate as estimated from the 1991 and 2001 Census figures by projecting growth trends.	0.55
<b>Total rural housing shortage during 2012-2017</b>	<b>43.67</b>

Source: Ministry of Rural Development (2011).

## 2 Estimates by the Working Group on Rural Housing

Table 1 shows the estimate of rural housing shortage by the WGRH-12, along with the methods and data sets it used.

According to the WGRH-12, the number of households and housing stock were 173.78 and 169.63 million, respectively, during 2012, leading to a shortage (households not having houses) of 4.15 million. Shortages because of temporary houses, obsolescent houses, and congestion were 20.21, 7.47, and 11.30 million, respectively. The total rural housing shortage in 2012 worked out to 43.13 million when the four factors are added (households not having houses, temporary houses, obsolete houses and congestion), as mentioned earlier.

## 3 Trends and Patterns in Rural Housing in India

The growth rate (decadal and annual exponential) of rural housing stock and households (excluding institutional households) were seen to decelerate during 1981-91, 1991-2001 and 2001-11 (Table 2).<sup>1</sup> The growth rate of rural housing stock was higher than that of rural households, which narrowed the gap between households and housing stock over the period of time. It is expected that this phenomenon will further ease the pressure of the shortage of rural housing.

**Table 2: Trends in Rural Housing Stock and Households, 1981 to 2011, and Estimates for 2012**

	1981	1991	2001	2011	2012*
Housing stock (in millions)	81.9	108.5	135.1	166.2	169.6
Households (in millions)	89.9	111.5	138.3	167.8	171.1
Households – housing stock (in millions)	-8.1	-3.0	-3.2	-1.7	-1.5
(as a proportion of households in %)	9.0	2.7	2.3	1.0	0.9
	1981-91	1991-2001	2001-11		
Decadal Growth (in %)					
Housing stock	32.5	24.6	23.0		
Households	24.0	24.0	21.4		
Annual exponential growth (in %)					
Housing stock	2.8	2.2	2.1		
Households	2.2	2.2	1.9		

\* Forecasted using annual exponential growth rates between 2001 and 2011; housing stock includes occupied census houses used as residences and residences-cum-other uses.

Source: Author's calculations using tables on houses, household amenities and assets, house listing and housing data, Census of India for various years.

There was an increase of 43.2 million (24.3%) census houses between 2001 and 2011, from 177.5 million in 2001 to 220.7 million in 2011 (Table 3, p 76).<sup>2</sup> Occupied census houses increased by 38.9 million (23.2%) from 168.2 million in 2001 to 207.1 million in 2011. Occupied census houses used as residences, shops/offices, schools/colleges, hotels/lodges/guest houses and so on, places of worship, and for other non-residential uses reported a high increase during 2001 and 2011. Occupied census houses used as residences-cum-other uses, hospitals/dispensaries, and factories/workshops/work sheds reported a marginal increase during 2001 and 2011. Residences and residences-cum-other uses accounted for almost 80% of the total occupied census houses.

The number of vacant census houses rose by 4.2 million (45.1%), from 9.4 million in 2001 to 13.6 million in 2011. However, information on the characteristics of these vacant houses, such as size, physical condition, use, tenure, reasons for non-occupancy, and so on, was not available. Nonetheless, these vacant houses are physically unutilised and could be used to meet a large part of rural housing needs.

There was an increase of 29.6 million households in rural India, from 138.27 million in 2001 to 167.87 million in 2011 (Table 4, p 76). Among the types of census houses occupied by households, there was an increase in permanent (29.41 million) and semi-permanent (3.46 million) houses, and a decline in temporary houses (4.87 million) between 2001 and 2011. The number of households living in temporary houses fell from 32.01 million (23.15% of households) in 2001 to 27.14 million (16.17% of households) in 2011, thereby suggesting an improvement in the housing situation over a period of time. According to the NSS, 16.99% of the households were living in temporary/*katcha* houses during 2008-09.

Of the houses, 20.6% and 28.1% had temporary roofs (grass/thatch/bamboo/wood/mud and plastic/polythene as the predominant material) during 2011 and 2001, respectively. Of these, 43.5% and 53.6% had temporary walls (grass/thatch/bamboo, plastic/polythene, mud/unburnt bricks, and wood as

## REVIEW OF RURAL AFFAIRS

**Table 3: Levels and Changes in Census Houses in Rural India during 2001 and 2011**

	2011		2001		Changes (2001-11)		
	Numbers (millions)	As Proportion during 2011 (in %)	Numbers (millions)	As Proportion during 2001 (in %)	Numbers (millions)	As Proportion during 2001-11 (in %)	
Census houses							
Census houses	220.7	100.0	177.5	100.0	43.2	24.3	100.0
Vacant census houses	13.6	6.2	9.4	5.3	4.2	45.1	9.8
Occupied census houses	207.1	93.8	168.2	94.7	38.9	23.2	90.2
Occupied census houses							
Occupied census houses	207.1	100.0	168.2	100.0	38.9	23.2	100.0
Occupied census houses used as residences	159.9	77.2	129.1	76.7	30.9	23.9	79.3
Residences-cum-other uses	6.2	3.0	6.0	3.6	0.2	3.0	0.5
Shop/office	7.0	3.4	5.6	3.3	1.4	25.3	3.6
School/college etc	1.7	0.8	1.2	0.7	0.5	38.5	1.2
Hotel/lodge/guest house etc	0.3	0.2	0.3	0.2	0.1	28.7	0.2
Hospital/dispensary etc	0.4	0.2	0.3	0.2	0.0	5.8	0.1
Factory/workshop/work shed etc	1.0	0.5	1.0	0.6	0.0	1.3	0.0
Place of worship	2.4	1.2	2.0	1.2	0.4	22.1	1.1
Other non-residential use	27.6	13.3	22.7	13.5	4.9	21.6	12.6
Occupied locked census houses	0.6	0.3			0.6		1.4
Total households	167.8		138.3		29.6	21.4	
Occupied census houses used as residences and residences-cum-other uses	166.2		135.1		31.1	23.0	

Source: Author's calculations using tables on houses, household amenities and assets, house listing and housing data, Census of India for various years.

the predominant material) during 2011 and 2001, respectively. According to the NSS, 21.51% and 40.07% of households had temporary/katcha roofs and temporary/katcha walls, respectively, during 2008-09.

In 2011, 3.7%, 9.8%, 12.6%, 21.0%, 18.9%, 26.9% and 7.2% of the rural households had a household size of one, two, three, four, five, six to eight and nine and above members, respectively. Among rural households by number of dwelling rooms, 4.3%, 39.4%, 32.2%, 12.7% and 11.4% had no exclusive room, one room, two rooms, three rooms and four rooms and above, respectively, during 2011.

It is also important to note that 6.5% and 6.23% of rural households were in a dilapidated condition (the rest in a good and liveable condition) in 2011 and 2001, respectively.

As per the NSS data in 2008-09, 95.06% of rural households owned their house and the rest had various hired arrangements or other agreements. Whereas 94.73% of rural households owned their houses according to the census data, the rest had various hired arrangements.

#### 4 Revised Estimation of Rural Housing Shortage – 2012

**Excess of Households over Houses:** The rural housing stock and households in 2012 were estimated at 169.6 million and 171.1 million, respectively, by forecasting the 2011 figures using annual exponential growth rates between 2001 and 2011 (Table 2). The excess of rural households over rural houses in 2012 was estimated to be 1.48 million.

**Households Living in Temporary Houses:** Temporary/katcha houses are those in which both the walls and roof are made of materials that need to be replaced frequently. As per the census definition, temporary houses are made with walls and roofs made of temporary material. Walls can be made of

grass, thatch, bamboo, plastic, polythene, mud, unburnt bricks or wood. Roofs can be made of grass, thatch, bamboo, wood, mud, plastic or polythene.

Households living in temporary houses in 2012 were estimated to be 26.69 million by forecasting the 2011 figures using annual exponential growth rates between 2001 and 2011 (Table 4 and Table 5, p 77).

**Shortage due to Obsolescence, Excluding Temporary Houses:** Households living in obsolescent houses (40 to 80 years old in a bad structural condition, and 80 or more years), excluding temporary houses (to avoid double counting), in 2012 were estimated to be 3.55 million (Table 5).

**Table 4: Distribution of Households by Type of Census Houses Occupied during 2001 and 2011 in Rural India**

	2011		2001		Changes (2001-2011)		
	Numbers (millions)	As Proportion of Households (in %)	Numbers (millions)	As Proportion of Households (in %)	Numbers (millions)	As Proportion of Households (in %)	Annual Exponential Growth (in %)
Permanent	86.24	51.37	56.83	41.10	29.41	51.75	4.17
Semi-permanent	52.86	31.49	49.40	35.73	3.46	6.99	0.68
Temporary	27.14	16.17	32.01	23.15	-4.87	-15.22	-1.65
Unclassifiable	1.64	0.98	0.03	0.02	1.61		
Total	167.87	100.00	138.27	100.00	29.60	21.41	1.94

Permanent: Houses with walls and roof made of permanent materials. The walls can be galvanised iron, metal, asbestos sheets, burnt bricks, stone or concrete, and the roof can be tiles, slates, galvanised iron, metal, asbestos sheets, bricks, stones, or concrete. Temporary: Houses with walls and roof made of temporary material. Walls can be grass, thatch, bamboo, plastic, polythene, mud, unburnt bricks, or wood. The roof can be grass, thatch, bamboo, wood, mud, plastic, or polythene. Semi-permanent: Either the walls or roofs are made of permanent material, and the rest is made of temporary material. Unclassifiable: Any other material.

According to the NSS, 16.99% of households were living in temporary/katcha houses during 2008-09 (the various categories for katcha for walls and roofs from the NSS are grass/straw leaves/reeds/bamboo, and so on; mud (with/without bamboo)/unburnt bricks; canvas/cloth; and other katcha materials).

Source: Author's calculations using tables on houses, household amenities and assets, house listing and housing data, Census of India for various years.

**Households Living in Congested Conditions:** A household living in conditions so congested that a separate dwelling unit is required to take care of it is based on the number of married couples not having separate rooms per household, estimated using the multiplying factor, as used by the TG-12 and the technical group on rural housing for the Eleventh Five-Year Plan (TG-11).

Households living in congested conditions in 2012 were estimated to be 30.28 million (Table 6). As per the NSS, even if children aged 10 years or below use a room along with a couple, the couple is considered to have a separate room. A

**Table 5: Estimation of Housing Shortage due to Households Living in Temporary/Katcha Houses and Obsolescent Houses in Rural India during 2012**

Total forecasted households in 2012 (in millions)	171.11
Households living in temporary/katcha houses in 2012* (in millions)	26.69
Households excluding temporary/katcha houses in 2012 (in millions)	144.42
Households living in obsolescent houses excluding temporary/katcha houses living in 40-80-year-old dwelling unit in bad condition, excluding temporary/katcha houses during 2008-09 (in percentage)	1.67
Households living in 80 and more years old dwelling unit excluding temporary/katcha houses during 2008-09 (in percentage)	0.79
Households in obsolescent or unacceptable dwelling units (40-80 years old in bad condition and 80 and more years old) excluding temporary/katcha houses during 2008-09 (in percentage)	2.46
Households living in obsolescent houses (excluding temporary/katcha houses) in 2012 (in millions)**	3.55

\* Forecasted using annual exponential growth rates of households living in temporary houses between 2001 and 2011 (Table 4); \*\* Assuming 2.46% of households living in obsolescent houses during 2008-09 is constant for the forecasted 144.42 million households (excluding temporary/katcha households, to avoid double counting) in 2012. It is also important to note that 6.5% and 6.23% of rural houses were in a dilapidated condition (the rest in a good and liveable condition) in 2011 and 2001, respectively. Only owned households are reported as obsolescent, which has been generalised for rented as well and thus taken as the overall, using NSS data. Age of the structure is available for only households living in self-owned houses and not for those living in rented houses. It is presumed that the distribution of structure by age among rented units would be the same as those that are self-occupied. This method has been used by earlier working groups for rural housing and also technical groups for urban housing shortages. In 2008-09, as per the NSS data, 95.06% of total rural households owned their houses and the rest were in various hired arrangements. As per the census data, 94.73% of total rural households owned their house and the rest were in various hired arrangements during 2011. Source: Author's calculations using NSS housing condition round (65th) unit record data 2008-09, and tables on houses, household amenities and assets, house listing and housing data, Census of 2011.

**Table 6: Summary of Process of Estimating Households Living in Congestion and Requiring a New Dwelling Unit in Rural India during 2012 (in millions)**

A	Total estimated households in 2008-09	158.14
A1	Total estimated households, excluding katcha/temporary houses, in 2008-09	131.27
B	Estimation of households requiring a separate dwelling unit to take care of congestion, excluding those living in katcha/temporary houses, in 2008-09	27.96
C	Estimation of households requiring a separate dwelling unit to take care of congestion in katcha/temporary houses in 2008-09	0.72
B + C	Dwelling units required because of congestion in 2008-09	28.68
D	Number of households with married couples not having a separate room, living in structurally bad houses aged 40-80 years, excluding katcha/temporary houses during 2008-09	0.53
E	Number of households with married couples not having a separate room, living in houses aged 80 years or more, excluding katcha/temporary houses, in 2008-09	0.17
D + E	Deductions to be made because of double counting	0.69
(B+C) - (D+E)	Estimated households requiring a new dwelling unit on account of congestion in 2008-09	27.99
{(B+C) - (D+E) / A}*100	Households living in congested living conditions as a proportion of total estimated households of NSS in 2008-09 (in %)	17.70
	Total forecasted households in 2012	171.11
	Households living in congested houses requiring new houses in 2012*	30.28

Households living in congested conditions in obsolescent houses (various age categories of structure), excluding katcha houses, were generalised for overall (owned and hired) households from their proportions for owned houses due to unavailability of data.

\* Assuming 17.7% of households living in congested living conditions (using calculations to avoid double counting) in 2008-09 is constant for the forecasted 171.11 million households in 2012. Source: Author's calculations using NSS housing condition round (65th) unit record data 2008-09, and tables on houses, household amenities and assets, house listing and housing data, Census of India, 2011.

couple living in a single room-cum-kitchen is considered as having a separate room.

The WGRH-12 and WGRH-11, and the working groups on urban housing in the Ninth and Tenth Plans, using census data, considered congestion as the number of couples not having a room to themselves. The TG-11 pointed out,

This definition of congestion does not consider a situation wherein a couple is sharing a room with a person of age 10+ as undesirable or a reflective of congestion. When a household living in a house with only one living room has one couple, it would not be considered to be a 'congested' situation. In fact, no question regarding couples sharing rooms with adult members is asked from the respondents while conducting the population census. The question asked from the respondents during the house listing operations of census pertain to the number of couples in the households and number of rooms available in the dwelling unit. Thus this definition fails in capturing real congestion by ignoring the privacy factor.

Thus, this method of capturing congestion was replaced by the TG-11 and TG-12 using NSS data, as discussed above.

### Total Rural Housing Shortages – 2012

The total rural housing shortage in 2012 was 62.01 million (Table 7, p 78), obtained by adding the four factors (excess of households over having houses, temporary houses, obsolescent houses and congestion).

### 5 Summary of Findings and Discussions

This paper has assessed the rural housing situation and re-estimated the rural housing shortage in India in 2012 using the latest data sets – Census 2011 and NSS housing condition rounds unit record data of 2008-09. Improved methodology (as used in the TG-12) has overcome the limitations of WGRH-12.

The growth rate of the rural housing stock and households decelerated during 1981-1991, 1991-2001 and 2001-11. However, the growth rate of the rural housing stock was higher than that of rural households, which has narrowed the gap between households and housing stock and eased the pressure

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**REVIEW OF RURAL AFFAIRS**


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of the rural housing shortage. The number of households living in temporary houses fell from 32.01 million (23.15% of households) in 2001 to 27.14 million (16.17% of households) in 2011, thereby suggesting an improvement in the housing situation over the period.

**Table 7: Summary of Housing Shortages in Rural India during 2012**

	Numbers (millions)
Total forecasted households in 2012	171.11
Total forecasted housing stock in 2012	169.63
Excess of households over houses	1.48
Households living in temporary/katcha houses	26.69
Households living in obsolescent houses (excluding temporary/katcha houses)	3.55
Households living in congested houses requiring new houses	30.28
Total housing shortage in 2012	62.01

Source: Author's calculations using NSS housing condition round (65th) unit record data 2008-09, and tables on houses, household amenities and assets, house listing and housing data, Census of India, 2011.

The number of vacant census houses rose by 4.2 million, from 9.4 million in 2001 to 13.6 million in 2011. However, information pertaining to the characteristics of these vacant houses such as size, physical conditions, reasons for non-occupancy, and so on was not available. Nonetheless, these vacant houses are physically unutilised and could be used to meet a large part of rural housing needs. Therefore, additional measures, such as taxation or incentive policies, should be taken to bring in these vacant houses to the housing market.

A comparison of the estimates of the rural housing shortage in India in 2012 arrived at by this paper and by the WGRH-12 is discussed below.

**Excess of Households over Houses:** The WGRH-12 estimate was 4.15 million (using WGRH-11 projections from 2001 and previous censuses). This paper's estimate was 1.48 million (using 2011). The gap between rural households and rural houses in India has been falling over time and it is expected that this will ease the problem of shortage because of excess households over houses.

**Households Living in Temporary Houses:** The WGRH-12 estimate was that households living in temporary houses were 20.21 million (using WGRH-11 projections from 2001 and previous censuses). This study found it to be 26.69 million (which was arrived at by using Census 2011). The higher estimate for rural housing shortage because of temporary houses has also found by Singh et al (2013). Immediate attention is needed for eradicating housing poverty in rural India, and the focus should be on providing adequate housing for rural households, especially those living in temporary houses.

**Housing Shortage Due to Obsolescence, Excluding Temporary Houses:** The estimate from the WGRH-12 was 7.47 million (using NSS data for 2002 and without checking if those already counted in temporary houses were counted again). This paper's estimate was 3.55 million (using NSS data for 2008-09). To tackle the problem of housing shortage because of obsolescent houses, measures should be adopted to shift households living in obsolescent houses to new units.

**Households Living in Congested Conditions:** The WGRH-12 estimate was 11.30 million (using 2001 Census data). This paper's estimate was 30.28 million (using NSS data for 2008-09 and the new method used by the TG-11 and TG-12, replacing the method used by the WGRH-12). The variation can be largely seen as an outcome of the change in method and the use of recent databases to capture real congestion. The housing shortage because of households living in congested conditions is the highest among all the four factors taken into account. Hence, to tackle the problem of congestion, there is a need for creating extra space or building extra rooms through support from public agencies.

**Total Rural Housing Shortage, 2012:** The estimate for total rural housing shortage in the WGRH-12 was 43.13 million. This paper found it was 62.01 million. The estimated number of rural households was 171.11 million during 2012, according to this paper.

Of the four factors, analysis suggests that the discrepancy between the figures in the WGRH-12 and this study is primarily because of the non-availability of latest data. Hence, this study is an improvement over the WGRH-12 in that it uses data sets from Census 2011 and NSS 2008-09, and simultaneously avoids double counting. It also adopts new methods for the estimation of the factors, as used in the TG-12, replacing the one used by the WGRH-12.

The results reveal that the major problem in rural housing is the number of households living in temporary houses and congested conditions, leading to a higher housing shortage in rural India in 2012. The WGRH-12 also assumes that 90% of the total rural housing shortage affects BPL families. However, there is a need to reassess this and turn the focus on adequate as well as affordable housing for all in rural India.

**Table 8: Deprivation of Access to Housing Amenities in 2011 in Rural India**

Number of households (in millions)	167.8
Number of households not having drinking water within their premises (near their premises and away) (in millions)	109.1
(as a proportion of households in %)	65.0
Number of households not having latrines within their premises (public and open latrine use) (in millions)	116.3
(as a proportion of households in %)	69.3
Number of households not having electricity in the house (kerosene, other sources and no lighting) (in millions)	75.0
(as a proportion of households in %)	44.7
Number of households not having closed drainage connectivity for waste water outlet (open drainage and no drainage) (in millions)	158.2
(as a proportion of households in %)	94.3

Source: Author's calculations using tables on houses, household amenities and assets, house listing and housing data, Census of India for respective years.

**Housing Amenities as a Measure of Housing Quality:** Of rural households, 65.0%, 69.3%, 44.7%, and 94.3% had no drinking water available within their premises, latrines, electricity, and proper drainage connections in 2011 (Table 8). This shows that mere availability of space is not enough to solve the "housing question" in rural areas. Much more needs to be done.

Therefore, the poor housing conditions faced by many rural households such as temporary houses, congested conditions,

obsolescent houses, and high deprivation of housing amenities point to the need for immediate attention to rural housing, which holistically focuses on eradicating shelter deprivation and contributing to enhancing the quality of life in rural India.

## 6 Conclusions and Policy Implications

The growth rates of rural housing stock and households can be seen to have decelerated over time. However, the growth rate of rural housing stock was higher than that of rural households, which has narrowed the gap between households and housing stock over a period of time. The number of households living in temporary houses fell in 2001 and 2011, thereby suggesting an improvement of the housing situation during that period. There was also a rise in vacant census houses in rural India over the last decade.

In 2012, the estimated number of rural households and the rural housing shortage were 171.11 and 62.01 million, respectively, which suggest that adequate and affordable rural

housing has to be promoted by the state by allowing more housing supply to eradicate shelter deprivation in rural India.

The results reveal that a major problem with rural housing is households living in temporary houses and congested conditions, leading to a higher housing shortage in rural India in 2012. There was also a shortage because of obsolescent houses. In addition, rural households were highly deprived when it came to basic amenities.

Therefore, other measures such as bringing vacant houses to the housing market through taxation or incentive policies, creating extra space or building extra rooms through support from public agencies to tackle the problem of congestion, and shifting households living in obsolete houses to new units should act as complimentary measures to help reduce the estimated rural housing shortage or to provide for the additional requirements of 62.01 million. These additional measures will help to achieve targets effectively and reduce dependency on the single remedy of the state supplying affordable housing, which may be subject to problems such as long gestation periods and others.

## NOTES

- Housing stock includes occupied census houses used as residences and residence-cum-other uses. A "household" is usually a group of persons who normally live together and take their meals from a common kitchen unless the exigencies of work prevent any of them from doing so. Persons in a household may be related or unrelated or a mix of both. A group of unrelated persons who live in an institution and take their meals from a common kitchen is called an "institutional household". Examples are boarding houses, messes, hostels, hotels, rescue homes, jails, ashrams, orphanages and so on.
- A "house" is defined "as a building or part of a building having a separate main entrance from the road or common courtyard or staircase, etc. Used or recognised as a separate unit. It may be inhabited or vacant. It may be used for a residential or non-residential purpose or both."

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