

## IIPS Research Brief

Number 18

January 2019

### IIPS Research Brief

Every year, IIPS undertakes many research studies on a number of themes related to population and health at the state and national levels using its own resources. The 'Research Brief' is a new initiative by the Institute to provide an opportunity to the Institute's faculty, Ph.D. students and visiting fellows to quickly disseminate the important findings of their research studies before they are published as a research report or in a scientific journal. The authors of the Research Brief look forward to receive feedback from readers that could be helpful in revisiting the larger study report.

Editors  
Research Brief Series

### Editorial Team

**Prof. K.S. James**

**Prof. H. Lungdim**

**Dr. Harihar Sahoo**

**Prakash H. Fulpagare**

E-mail:  
[publicationcell@iips.net](mailto:publicationcell@iips.net)  
<http://www.iipsindia.org/publications03.htm>

## Access to Household Amenities and Assets in India: A Census Based Study

*R.B. Bhagat<sup>1</sup>, Sunil Sarode<sup>2</sup>, Laxmikant Dwivedi<sup>3</sup> and Mausam Kumar<sup>4</sup>*

### Background

The access to household amenities and assets has not been the prime concern of economic research vis-a-vis studies on poverty in India. In recent years, however, some efforts have been made to highlight its significance and efficacy to understand the changes in the economic status of households, but it has not emerged as an alternative paradigm to poverty research at the household level in spite of the fact that household amenities and assets are important attributes of socio-economic condition, standard of living, and the health status of people (Bhagat 2013; Das and Mistry 2013; Kumar 2014; Bhagat 2017). The reasons may be due to lack of data, appropriate indicators and methodology to mention a few. This study demonstrates the utility of household data on amenities and assets as an alternative measure to study the level of economic status and wellbeing of people both at the household and aggregate levels.

Census and NSSO are two important sources of data on household amenities and assets. Although sample surveys provide data on many aspects of social and economic conditions, census being free from sampling error is the unique source of data on household amenities and assets. Since 1991, census provided huge information on household amenities such as source of drinking water, source of lighting, toilet facilities and source of fuel used in the household for both rural and urban areas and also up to the city and town levels. The 2001 census added information on waste water outlets such as household connected to closed drainage, open drainage or no drainage. Further, the 2001 census for the first time also provided data on household assets like radio/transistor, telephone, scooter and car and the household availing any banking services. The same information was collected in 2011 census and the list was expanded to include mobile phone and computer/laptop also. Data on household assets and amenities are also available for SC and ST households, but these are not available for religious groups. In the absence of income data at the household level, the household data on assets could be helpful to understand the distribution of wealth in the country. It is known that India experienced a high economic growth after liberalization began in 1991 which accelerated during the decade 2001-2011. In this study, an attempt is made to examine the level of economic and living conditions of household based on census data of basic amenities and assets and changes therein during 2001 to 2011. An attempt has been made to throw light on the conditions of marginalized groups like SCs and STs and also the extent of disparities at the state level. The access to basic amenities and assets is studied separately and their relationship with socio-economic variables has also been explored.

<sup>1</sup> Professor and Head, Department of Migration and Urban Studies

<sup>2</sup> Assistant Professor, Department of Migration and Urban Studies

<sup>3</sup> Assistant Professor, Department of Mathematical Demography & Statistics

<sup>4</sup> Research Officer, International Institute for Population Sciences

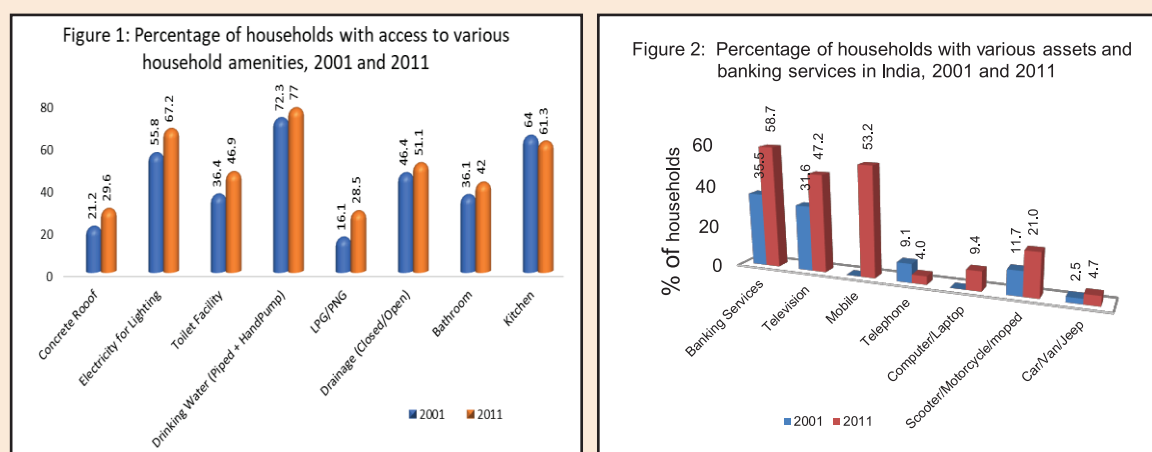
## Data and Methods

The census data on Housing Tables have been used in this study. The data has been analyzed for rural and urban areas, size class of cities and towns, and also for SC and ST households. The study also presents inter-state variations in the access of amenities and assets. A composite index was calculated for the level of amenities and assets separately using Principal Component Analysis (PCA).

### Household Amenities

In this study, the household amenities include several indicators such as houses with concrete roof, bathroom and kitchen, access to safe drinking water, electricity, toilet and drainage facilities, and also LPG/PNG cooking fuel. In India, less than 30% of households have the concrete roofs which vary from 18.0% in rural area to 52.9% in urban area in 2011. The households with the concrete roofs were 21.2% in 2001, which increased only by 7% increase in 2011. In 2011, there were 67.2% electrified households compared to 56% in 2001. The percentage of households with access to electricity was 55.3% in rural area and 92.7% in urban area. There were less than half of the households in India which have the toilet facility in 2011 and the percentage increase was of 10% observed during 2001 to 2011. In 2011 census, the percentage of households with toilet facility varied from 30.7% in rural areas to 81.4% in urban areas. There were only 28.5% households in 2011 which used LPG/PNG as the cooking fuel compared to 16.1% in 2001. In the rural areas, only 11.4% households used LPG/PNG compared to 65.0% urban areas. The percentage of households with access to drainage facility was 51.1% in 2011 up from 46.4% in 2001. In addition, only two-fifth households have a bathroom and three-fifth have a kitchen within their households in 2011. The availability of a kitchen has surprisingly declined during 2001-2011. As is known that division of a house or landed property is a common practice in rural areas as sons get married and live separately. This also reflects growing pressure on the housing space due to increasing number of households in the country (Fig 1).

As urbanization has been a prominent factor in the access to household amenities and assets, there is a wide gap in all indicators of amenities between rural and urban areas (Bhagat 2011). Further, the household amenities vary by class size of cities and towns. It shows that the percentage of all amenities is higher in cities (more than 100 thousand) compared to small towns (less than 20 thousand). In other words, the amenities are positively related with size class of cities and towns.



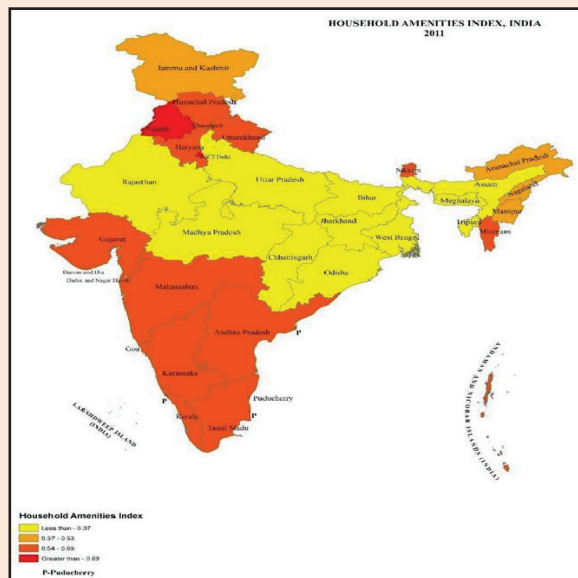
Source: Census of India 2001 and 2011, H-Series: Tables on Houses, Household Amenities and Assets  
Note: Information on mobile and computer/laptop was not available in Census 2001.

The household amenities index is the composite index of all the selected amenities. The result of this index shows that the Punjab, Goa, Himachal Pradesh, Haryana, and Uttarakhand are top five states, whereas Odisha, Jharkhand, Bihar, Chhattisgarh and Assam are the bottom five states. The state level variations in the index of amenities is shown in Map 1.

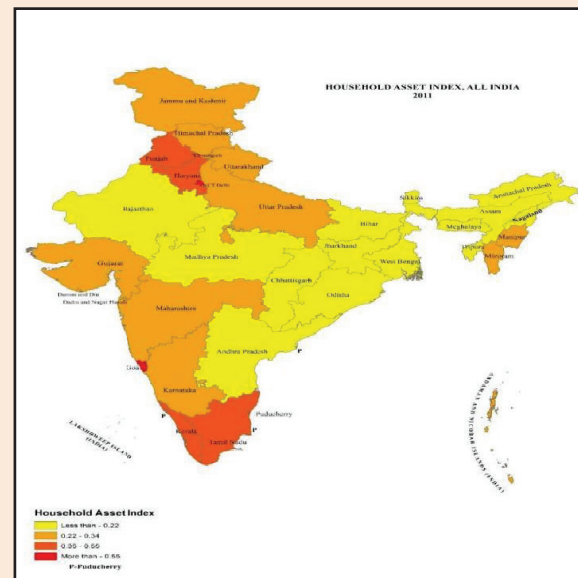
### Household Assets and Banking Services

The present study also presents the changes in the banking services and household assets in India during 2001 to 2011. The percentage of households with access to banking services had increased from 35.5% in 2001 to 58.7% in 2011. The percentage of households with television was 31.6% in 2001 which increased to 47.2% in 2011. An increase of 9.3% was observed in scooter/motorcycle/moped during 2001-2011 from 11.7% in 2001. Similarly, in car/jeep/van the percentage increased was from 2.5% in 2001 to 4.7 % in 2011 (Fig 2).

**Map-1**



**Map-2**



It is worthwhile to note that there was a decline in the possession of land line telephones from 2001 to 2011 as mobile phone services expanded in the country. In 2011 more than half of the households were using mobile phones. Similarly increasing trend was also seen in the household assets over the period for both rural and urban areas as well. Similar to the amenities, the distribution of household assets positively varies according to the size of cities and towns. Cities are better than small towns in possession of almost all household assets. A composite index of assets based on indicators of television, mobile, phone, computer/laptop, scooter/motor cycle/ moped and car/van/jeep was created based on PCA. The household assets index was highest in Goa, followed by Kerala, Punjab, Haryana and Himachal Pradesh while the Odisha, Bihar, Chhattisgarh, Meghalaya and Madhya Pradesh are the five bottom states (Map 2).

#### **Amenities and Assets Among SC and ST Households:**

Although SCs and STs have progressed very well during 2001 to 2011, the gap between them and all households (average level) has widened in almost all indicators of living conditions except electricity among ST households, and electricity and concrete roofs among SC households. Similarly, assets like car, jeep and van, scooter/motorcycle/moped and television, there has been a widening gap between SC and STs on the one hand and all households on other. This shows that although SCs and STs have been benefitted, but the benefits have extended faster among non-SC and ST communities during the decade of rapid economic growth during 2001-2011. It is also pertinent to know, how inequality between SCs and STs among the marginalized communities has risen during the last decade. In fact, the gap between SCs and STs has widened as SCs have benefitted more than STs. For example, the percentage of SC households with possession of television was 9 percent higher than the STs in 2001 which increased to 17 percent in 2011. Similarly, the inequality in the possession of car/jeep/van increased from 1 percentage point in 2001 to 3 percentage points in 2011 between SCs and STs households. Similarly, there has been a widening inequality between SCs and STs in all indicators of living conditions except electricity as a source of lighting during 2001 to 2011. From the analysis of census data from 2001 and 2011 it is evident that the fruits of development have accrued most to the non-scheduled groups followed by SCs and the least by the ST communities. The correlation analysis also shows that the amenities Index is negatively related with percentage of ST households at the state level. Further SC and ST communities of better performing states show better conditions compared to poor performing states. This shows that regional disparities exist beyond communities and the spatiality of development matters in policy and planning in future.

#### **Relationship between Assets, Amenities and Socio-economic and Demographic Conditions**

The relationship between correlation matrix shows that the household amenities and assets are positively correlated (Fig 3). It means that higher amenities co-exist with higher assets. It also reflects that those states which have lower household amenities index tend to have lower household assets index.



This is expected as most of the amenities included in this study are also private goods barring drainage and supply of drinking water through tap and hand pumps. Thus, a strong relationship between the two indices shows the income/prosperity effects. Further, both the indices are positively correlated with male and female literacy rates. However, they have negative correlation with child sex ratio, % of ST population, % of the workforce in agriculture and % of marginal workers (Table 1). It may also be noted that there exists a negative relationship between female work participation and amenities and assets. This reflects that development story of India is not gender inclusive. Further, the significant negative correlation between child sex-ratio and indices of amenities and assets provides strong evidence that rising prosperity has deleterious effects on status of females in their early lives. In other words, development does not necessarily promote gender equality.

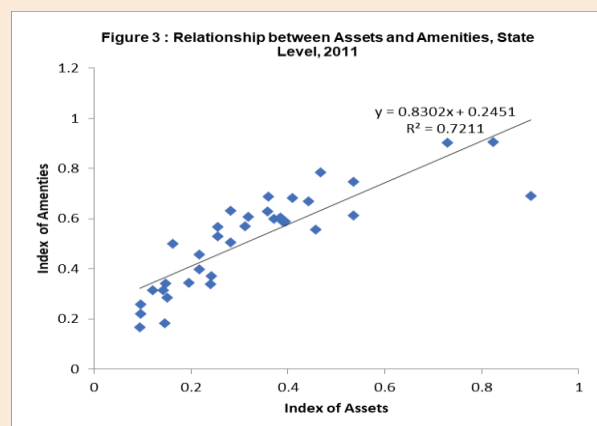


Table 1: Correlation matrix of household amenities, assets and socio-economic and demographic indicators, State Level, India, 2011

| Indicators                     | Index of Amenities | Index of Assets |
|--------------------------------|--------------------|-----------------|
| Child Sex Ratio                | -0.346**           | -0.402**        |
| Male literacy rate             | 0.613***           | 0.644***        |
| Female literacy rate           | 0.585***           | 0.617***        |
| % of SC population             | 0.066              | 0.128           |
| % of ST population             | -0.336**           | -0.291          |
| Male work participation rate   | 0.041              | 0.168           |
| Female work participation rate | -0.476**           | -0.318*         |
| % of workforce in agriculture  | -0.846***          | -0.737***       |
| % of marginal workers          | -0.321*            | -0.195          |

\*significant at 10 %, \*\* 5 % and \*\*\* 1 % level respectively.

## Conclusion

This study using the census data on household amenities and assets examines the economic status at the household level. The findings show that there has been a significant increase in household amenities and assets in India at the state, city and town levels from 2001 to 2011. This is also true for the SC and ST households as well. However, there exists a wide gap between rural and urban area as well as among SCs and STs and Other households. Further, the gap in the access to amenities and assets among SCs and STs compared to non-Scheduled groups has widened during 2001-2011. It is also observed that SCs have performed better than ST households in terms of increase in access to amenities and assets during 2001-2011.

A composite index of household amenities shows that Punjab, Goa, Himachal Pradesh, Haryana and Uttarakhand are the five top states in the access to amenities, while Odisha, Jharkhand, Bihar, Chhattisgarh and Assam are the five bottom states. In terms of assets, Goa tops followed by Kerala, Punjab, Haryana and Himachal Pradesh, while Odisha, Bihar, Chhattisgarh, Meghalaya and Madhya Pradesh are the five bottom states in the level of access to assets. At state level, there is a strong positive correlation observed between household amenities and assets index which is expected. However, the negative relationship between the indices of amenities and assets and female work participation rate and child sex-ratio upholds the view that the development story of India is not gender inclusive.

## References

- Bhagat, R.B. (2017) "Knowing the Social World through Census: Reflections on the Conditions of Scheduled Castes and Scheduled Tribes" In N. Jayaram (ed) *Knowing the Social World: Perspectives and Possibilities*, Orient Black Swan, 2017, pp. 23-38.
- Bhagat, R. B. (2013). Conditions of SC/ST Households. *Economic & Political Weekly*, 48(41), 63.
- Bhagat, R. B. (2011). Urbanisation and access to basic amenities in India. *Urban India*, 31(1), 1-13.
- Das, B., & Mistri, A. (2013). Household quality of living in Indian states: analysis of 2011 Census. *Environment and Urbanization Asia*, 4(1), 151-171.
- Kumar, A. (2014). Access to basic amenities: Aspects of caste, ethnicity and poverty in rural and urban India, 1993 to 2008– 2009. *Journal of Land and Rural Studies*, 2(1), 127-148.

**International Institute for Population Sciences (IIPS), Deonar, Mumbai-400088, Tel: 022-42372414/459/428**

**Vision** "To position IIPS as a premier teaching and research institution in population sciences responsive to emerging national and global needs based on values of inclusion, sensitivity and rights protection."

**Mission** The Institute will strive to be a centre of excellence on all population and relevant issues through high quality education, teaching and research. This will be achieved by (a) creating competent professionals, (b) generating and disseminating scientific knowledge and evidence, (c) collaboration and exchange of knowledge, and (d) advocacy and awareness