

# Poverty Hotspots in Rural India: Evidence from 2011 Population Census

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## Abstract

The present paper focusses on the geographical concentration of poverty across villages in India with the objective of identifying poverty hotspots in rural India. The paper follows an assets-based approach of identifying poor households in villages and to classify a village as poverty hotspot if the proportion of poor households in the village is at least 40 per cent. Our analysis suggests that around 20 per cent villages in the country are poverty hotspots in the sense that at least 40 per cent households in these villages were not having any of the seven household assets for which information was collected at the 2011 population census. The paper also applies data mining techniques to identify the defining characteristics of villages classified as poverty hotspots explores their geo-political distribution. The analysis reveals that poverty hotspots in rural India are characterised by small size of the village, low literacy rate, high fertility, and high proportion of Scheduled Tribes in the village. More than 73 per cent poverty hotspots in India are located in only eight states of the country. A focus on poverty hotspots in rural India through targeted interventions can contribute to alleviating poverty in the country.

## Introduction

Concern for eradicating poverty and improving the quality of life of the people in India have been a pertinent development agenda in India right since independence. A concomitant feature of this concern has been measurement of poverty. The commonly used definition of poverty is the exclusion from ordinary living patterns, customs, and activities due to lack of resources (Townsend 1979). Following this definition, the official approach of measuring poverty in India is based on comparing household consumption expenditure with a cut-off/threshold consumption expenditure commonly known as the poverty line (Government of India, 2013). All households having consumption expenditure less than the poverty line are classified as poor households and the proportion of these households is a measure of the prevalence of poverty. This approach assumes household consumption as the best possible proxy measure of well-being (Ruggeri et al, 2003).

Consumption based approach of measuring poverty has many limitations. First, it provides very limited information about the reason of poverty and the material situation of the poor, which is likely to change over time (Carter, 2014). This approach usually accounts for 'current income' and not wealth (e.g., savings or other liquid assets), debt, or access to credit that may be used to obtain goods and services. Goods may also be obtained without income, savings, or credit. They may be acquired as gift, exchanged via barter, received as free services or public goods from the government (Ringgen, 1988). Households may also meet their basic needs through accumulated wealth or credit or through other markets. Consumption-based measures, therefore, are likely to misrepresent households' ability to meet their basic needs. The living conditions of a household are not shaped by current consumption alone and the household may experience different living standards for reasons not explained by current consumption (Beverly, 1999; Edin and Lein, 1997; Mayer and Jencks, 1989, 1993; Rector et al, 1999). Consumption-based approach is based on self-reported consumption data collected from a sample of households. Consumption-based measures of poverty are also insufficient to characterise and analyse well-being because these measures relate to means to achieve ultimate ends rather than the ends in themselves (Hulme and McKay, 2005).

An alternative approach that has been suggested to address limitations of the consumption-based approach to measure poverty is the asset poverty. Asset poverty is defined as the inability of a household to access wealth resources to provide for its basic needs. Basic needs refer to minimum standards for consumption and acceptable needs (Jolly, 1976). It is argued to be a more complete understanding of what it really means to be living in poverty. Assets that a household possesses, or to which, it has access or command, can be related to household consumption in the sense that the latter may be conceptualised as returns to these assets. In this view, household consumption reflects the assets that household commands and the returns and it is able to earn on these assets. Assets may also be important to households in their own right. Having a sufficient level of household assets also offers security. Households having assets can insure themselves against shocks and gain easier access to credit. Assets also capture long term dynamics of household economics much better than the consumption or income at one or two points in time. Household assets, in principle, can be considered in a range of different dimensions of the capital including the social capital. The assets-based approach is also associated with the concept of poverty in a more intuitive way than the simple income or consumption-based concept of poverty. Similarly, deprivation of household assets is a better measure of the 'persistence' of ill-being as households without a specific set of assets, are directly linked to the standard of living.

The objective of this paper is to identify poverty hotspots in rural India in the context of asset poverty. Poverty hotspots are defined as those villages where the proportion of households having none of a specified set of assets is more than a pre-determined cut-off value. The paper also applies data mining techniques to explore the distinguishing features of poverty hotspots in rural India.

The paper is organised as follows. The next section explains the methodology adopted for identifying poverty hotspots. Section three describes the data source. The paper is based on the house level primary census abstract of the 2011 population census. The fourth section of the paper identifies poverty hotspots and analyses their distribution across the country. The fifth section of the paper applies data mining techniques to identify distinguishing characteristics of poverty hotspots. The last section of the paper summarises main findings of the analysis and discusses its policy and programme implications in the context of poverty eradication.

## Methodology

### Asset-based Poverty Measurement

We measure poverty in terms of the proportion of households in a village which do not have any of a specified set of household assets or the proportion of asset-less households. The specified set of household assets consists of seven household items – radio or transistor; television, black and white or colour; telephone, landline, mobile or both; computer, with or without internet; bicycle, scooter or motorcycle or moped or any other two-wheeler; and jeep or car or any other four-wheeler. We classify a village as the poverty hotspot if at least 40 per cent of the households in the village are asset-less households. The cut-off limit of the proportion of asset-less household is dynamic in the same way as the poverty line based on consumption expenditure changes with time. Our approach of characterizing household poverty is related to the concept of fuzzy poverty which conceptualizes the state of poverty in the form of “fuzzy sets” to which all members of the population belong but to a varying degree (Cerioli and Zani, 1990; Cheli and Lemmi, 1995; Betti and Verma, 2008; Betti, Mangiavacchi, Piccoli, 2017).

### Characterisation of Poverty Hotspots

We apply classification modelling approach to identify distinguishing characteristics of poverty hotspots (Tan, Steinbach, Kumar, 2006; Han, Kamber, Pei, 2012). This approach involves classifying villages based on the proportion of asset-less households as the classification variable and selected village characteristics as predictor variables. The village characteristics used in the present paper included: 1) proportion of population aged 0-6 years; 2) proportion of the population aged 7 years and above who is illiterate, cannot read and write with understanding; 3) gender balance in the village measured in terms of the proportion of females in the village; 4) proportion of Scheduled Castes; and 5) proportion of Scheduled Tribes. The classification and regression tree (CRT) method (Breiman et al, 1984) was used for classification modelling. CRT is a non-parametric method that divides villages into mutually exclusive groups or clusters so that within group homogeneity with respect to the classification variable is maximised. It recursively partitions villages so that the partition can be represented as a decision tree (Loh, 2011). When the classification variable takes finite number of unordered values, the method generates classification tree. When the

classification variable is either a continuous variable or an ordered discrete variable, regression tree is generated. Villages are sorted according to the classification variable into mutually exclusive groups based on that predictor variable which causes the most effective split based on a similarity measure. The process is repeated until either the perfect similarity is achieved, or the stopping criterion is met (Ambalavanan et al, 2006; Lemon et al, 2003). A group in which all villages have the same value of the classification or the dependent variable – the proportion of asset-less households – is termed as “pure.” If a group is not found “pure”, then the impurity within the group can be measured through a number of impurity measures. We have used the Gini coefficient of impurity in the present analysis. We have used the Statistical Package for Social Sciences (SPSS) for classifying villages and for identifying the distinguishing characteristics of poverty hotspots. Since the classification variable in the present analysis – the proportion of asset-less households in the village – is a continuous variable, the regression tree was generated.

## Data

Information about the availability of seven household assets - radio or transistor; television, black and white or colour; telephone, landline, mobile or both; computer, with or without internet; bicycle, scooter or motorcycle or moped or any other two-wheeler; and jeep or car or any other four-wheeler – is available from the 2011 population census. The house level primary census abstract (HLPCA) provides the information about the proportion of households, which were having none of the above seven household assets in every village in the rural areas and municipal ward in the urban areas of the country. The present analysis is confined to rural area only. Poverty in the village is measured in terms of the proportion of asset-less households – households having none of the seven household assets. Therefore, the higher the proportion of asset-less households, the higher is the prevalence of poverty in the village.

In addition to HLPCA, the present analysis also uses the data available from the primary census abstract (PCA) of 2011 population census. The PCA provides data related to selected defining characteristics of the village population including gender composition, social class structure, level of literacy or, equivalently, extent of illiteracy, work participation rate and broad age composition of the population. These defining characteristics of the village population have been used to characterise poverty hotspots (villages) through the application of data mining technique.

There were 640,867 villages in the country at the time of 2011 population census according to the Registrar General and Census Commissioner of India. Out of these villages, 43,330 villages were found to be uninhabited at the time of 2011 population census. The present analysis is, however, limited to 597,478 villages as which were having at least one household at the time of 2011 population census. Total number of households in these villages varied from 1 household to 15,595 households, which shows that villages in India vary widely in terms of household size.

## Asset-less Households in India

According to the 2011 population census, there were 168,563,192 households in the 597,478 villages of the country, out of which 38,438,675 or 22.8 per cent households were not having any of the seven household assets so that these villages are identified as poverty hotspots. According to the estimates prepared by the Government of India based on the consumption data available through the National Sample Survey, the proportion of population living below the poverty line in rural India was 25.7 per cent in 2011-12 (Government of India, 2013). Recognising that average household size of a poor household is relatively larger than that of a non-poor household, the proportion of asset-less households is a very close approximation of the prevalence of poverty estimated by the Government of India based on consumption data.

The proportion of asset-less households in a village is found to be inversely related to the number of households in the village. In villages with less than 50 households, the proportion of asset-less households is found to be almost 28 per cent, whereas, in villages with at least 1000 households, the proportion of asset-less households is found to be just around 20 per cent. This implies that poverty in rural India is essentially concentrated in small villages which are usually located in the remote areas (Table 1).

Table 1: Assetless households in villages of India by village size

Village size (Number of households)	Total number of villages	Number of households	Asset-less households	Household Poverty (percent)
<50	101933	2583045	719332	27.85
50-100	95644	7175196	1817615	25.33
100-200	142998	20948603	5165591	24.65
200-600	193599	66144400	15694822	23.73
600-1000	39034	29623104	6609116	22.31
≥1000	24128	42088844	8432149	20.03
All	597336	168563192	38438625	22.80

Source: 2011 population census.

The proportion of asset-less households are not uniformly distributed across the country. There are four states/Union Territories – Meghalaya, Dadra and Nagar Haveli, Nagaland, and Madhya Pradesh – where more than 40 per cent of the households were found to be having none of the seven specified assets at the 2011 population census with the highest proportion in Meghalaya. Poverty appears to be quite pervasive in Arunachal Pradesh, Mizoram, and Tripura also. In these states, more than one third of the households were found to be having none of the seven specified assets. North-eastern states and other hilly states are found to be relatively poorer than their counterparts. On the other hand, in 11 states/Union Territories, the proportion of assetless household is found to be less than 10 per cent with the Union Territory of Chandigarh having the lowest proportion. In Haryana, Uttar Pradesh, and West Bengal

also, the proportion of asset-less households has been found to be quite low (Table 2 and Figure 1).

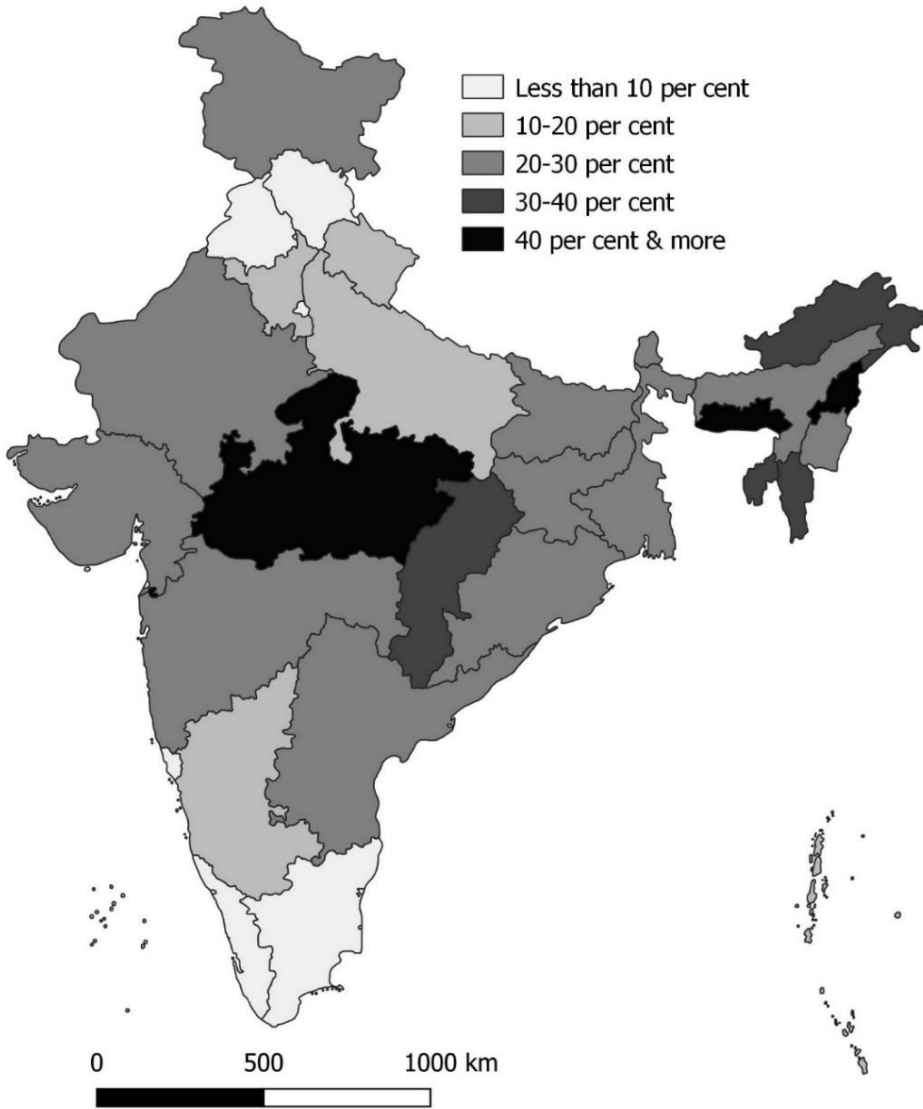


Figure 1: Proportion (per cent) of assetless households in states/Union Territories.

Source: Authors

Table 2: Assetless households in states/Union Territories, 2011.

State/Union Territory	Total number of households	Asset-less households		Rural population below poverty line 2011-12*
		Number	Proportion (percent)	
Jammu & Kashmir	1553433	341184	21.96	11.54
Himachal Pradesh	1312510	125658	9.57	8.48
Punjab	3358113	172844	5.15	7.66
Chandigarh	7140	206	2.89	1.64
Uttarakhand	1425086	252660	17.73	11.62
Haryana	3043756	361731	11.88	11.64
Delhi	79574	3985	5.01	12.92
Rajasthan	9494903	2423364	25.52	16.05
Uttar Pradesh	25684729	3115260	12.13	30.40
Bihar	16862940	4513741	26.77	34.06
Sikkim	93288	22169	23.76	9.85
Arunachal Pradesh	200210	75978	37.95	38.98
Nagaland	277491	113952	41.07	19.93
Manipur	338109	76019	22.48	38.80
Mizoram	105812	34914	33.00	35.43
Tripura	616582	212269	34.43	16.53
Meghalaya	430573	184375	42.82	12.53
Assam	5420877	1416316	26.13	33.89
West Bengal	13813165	3924150	28.41	22.52
Jharkhand	4729369	1164100	24.61	40.84
Odisha	8089987	2278556	28.17	35.69
Chhattisgarh	4365568	1361107	31.18	44.61
Madhya Pradesh	11080278	4449859	40.16	35.74
Gujarat	6773558	1865364	27.54	21.54
Daman and Diu	12744	1034	8.11	0
Dadra & Nagar Haveli	36094	15259	42.28	62.59
Maharashtra	13213680	3900852	29.52	24.22
Andhra Pradesh	14234387	3561474	25.02	10.96
Karnataka	7946657	1576370	19.84	24.53
Goa	128208	9551	7.45	6.81
Lakshadweep	2710	85	3.13	0
Kerala	4149641	253597	6.11	9.14
Tamil Nadu	9528495	614773	6.45	15.83
Puducherry	95018	9166	9.65	17.06
Andaman & Nicobar Islands	58507	6701	11.45	1.57

Source: Calculated by authors based on the data available through 2011 population census.

\*Estimates prepared by the Planning Commission of India (Government of India, 2013)

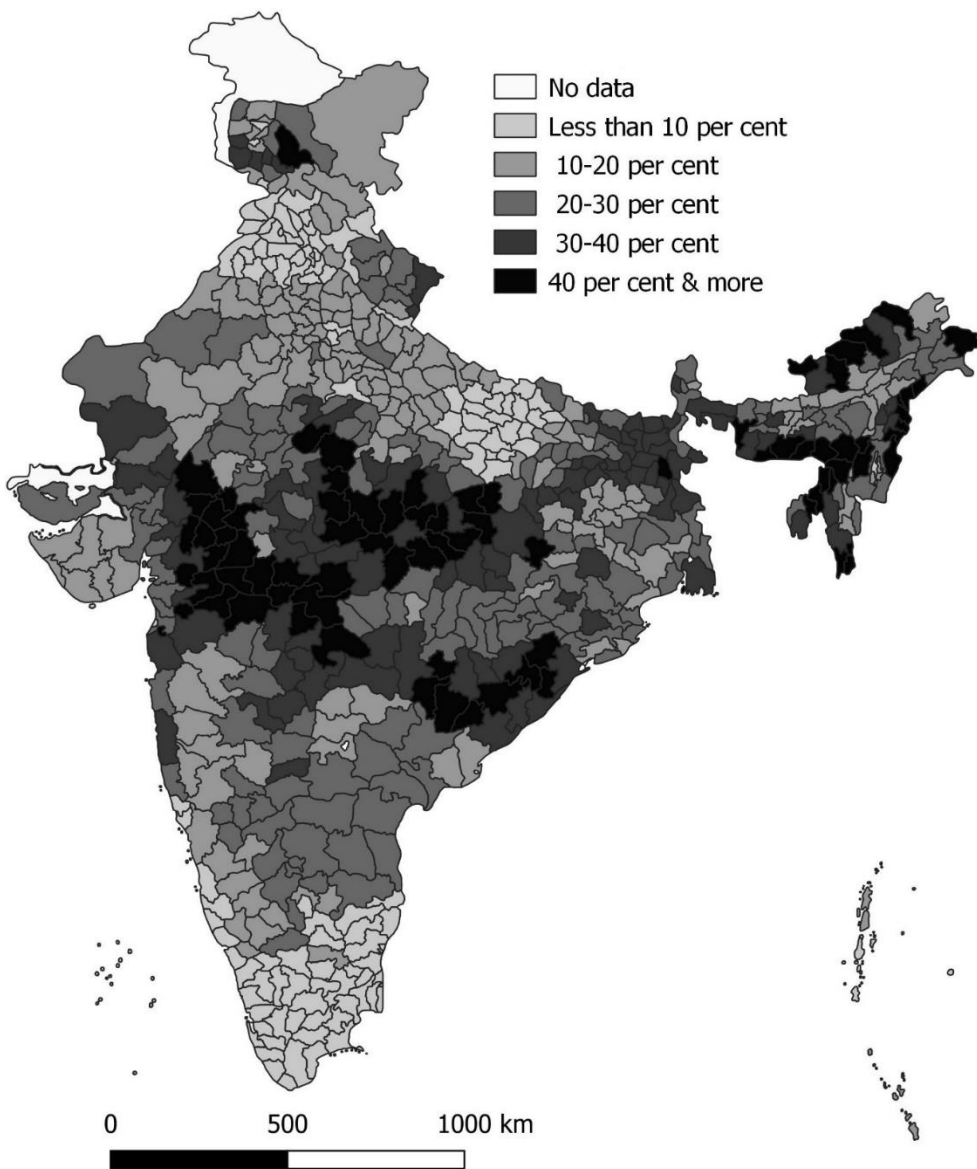


Figure 2: Proportion (per cent) of assetless households in districts of India.  
Source: Authors

Variation in the proportion of asset-less households is even wider at sub-district level (Table 3). In 868 (14.8 per cent) sub-districts, at least 40 per cent of the households were asset-less and, therefore, are poverty hotspots sub-districts. In



Migging sub-district of Upper Siang district of Arunachal Pradesh, virtually all households were asset-less. In sub-districts Parsi-Parlo of Kurung Kumey and Payum of West Siang districts of Arunachal Pradesh, more than 90 per cent households were asset-less. On the other hand, there was no asset-less household in sub-district Preet Vihar in East Delhi district of the National Capital Territory of Delhi and in sub-district Kochilaput in Lingraj district of Odisha.

## Poverty Hotspots in Rural India

There are 118,690 (19.9 per cent) villages where more than 40 per cent households were asset-less at the 2011 population census. These villages are the poverty hotspots in rural India. More than 42 per cent of these villages (poverty hotspots) are located in only three states – Madhya Pradesh (20.4 per cent); Odisha (11.43 per cent) and Maharashtra (10.58 per cent). In addition, more than 30 per cent of these villages, are located in five states – Rajasthan (7.3 per cent); Bihar (6.4 per cent); West Bengal (5.7 per cent); Andhra Pradesh (5.7 per cent); and Jharkhand (5.6 per cent). This means that more than 73 per cent of the poverty hotspots in rural India are located in only eight states. On the contrary, in the Union Territories of Daman and Diu, Lakshadweep and Puducherry, there was no poverty hotspot in the rural areas (Table 4).

Table 3: Distribution of districts and sub-districts by the proportion of assetless households.

Proportion of assetless households (Per cent)	Districts		Sub-districts		Villages	
	Number	Per cent	Number	Per cent	Number	Per cent
< 10	122	19.3	716	12.2	171469	29.2
10-20	166	26.3	1527	26.0	138671	23.3
20-30	155	24.6	1729	29.4	98636	16.6
30-40	104	16.5	1038	17.7	65812	11.0
≥40	84	13.3	868	14.8	118690	19.9
All	631	100.0	5878	100.0	595978	100.0
No data	9				1559	

Source: Calculated by authors based on 2011 population census.

The concentration of rural poverty hotspots varies across states/Union Territories of the country. In six states/Union Territories - Dadra and Nagar Haveli, Meghalaya, Arunachal Pradesh, Nagaland, Madhya Pradesh, and Tripura - more than 40 per cent villages are poverty hotspots whereas in 13 states/Union Territories of the country, less than 10 per cent villages are poverty hotspots. Almost one third of these villages are located in Uttar Pradesh, while around 27 per cent are located in Tamil Nadu; Himachal Pradesh; Punjab; and Rajasthan. Moreover, in 5,256 (0.9 per cent) villages, all households were asset-less whereas in 30,716 (5.2 per cent) villages, there was no asset-less household.

## Distinguishing Characteristics of Poverty Hotspots

We have used the classification modelling approach to examine how proportion of asset-less households in a village is related to selected village level characteristics. The classification and regression tree (CRT) method (Breiman et al, 1984) was used for the purpose. CRT is a nonparametric method that divides villages into mutually exclusive groups or clusters so that within group homogeneity with respect to the classification or the dependent variable is maximized. This method recursively partitions the data space so that the partition can be represented in the form of a decision tree (Loh, 2011). Villages are sorted according to the classification variable – proportion of asset-less households in the village - into mutually exclusive groups based on that predictor variable which causes the most effective split on the basis of the similarity measure. The process is repeated until either the perfect similarity within the group is achieved, or the pre-decided stopping criterion is met (Ambalavanan et al, 2006; Lemon et al, 2003). A group in which all villages have the same value of classification, or the dependent variable - the proportion of asset-less households in the village - is termed as “pure.” If a group is not “pure”, impurity within the group can be measured through several impurity measures. We have used the Gini coefficient of impurity. The Statistical Package for Social Sciences (SPSS) has been used for classification modelling.

The classification modelling exercise was limited to only those 529,129 villages of the country which had at least 10 households at the 2011 population census. Villages having less than 10 households and villages having no household were excluded from the analysis. Results of the classification modelling exercise are presented in table 5 while the associated classification tree is depicted in figure 3. The exercise suggests that 529,129 villages of the country can be grouped into 10 mutually exclusive groups or clusters (Terminal nodes) of villages and the characteristics of villages belonging to different clusters are different and the mean proportion of asset-less households in different clusters is also different. The proportion of asset-less households, on average, is found to be the highest in 16,210 (3.1 per cent) villages of the country where Scheduled Tribes constitute more than 94.3 per cent of the village population and where illiteracy rate is 48 per cent and more (Node 14). The average of the proportion of asset-less households in villages of this cluster is 57.6 per cent with a standard deviation of 0.28. Next, there are 17,109 (3.2 per cent) villages where Scheduled Tribes constitute 30.6-94.3 percent of the village population, and the illiteracy rate is 48 per cent and more (Node 13). The average of the proportion of asset-less households in the villages of this cluster is 44.9 per cent with a standard deviation of 0.24. The third cluster comprises of those villages where Scheduled Tribes constitute at least 30.6 per cent of village population, illiteracy rate is less than 48 per cent and proportion of the population aged 0-6 years is at least 16.4 per cent (Node 12). There are 24,884 (4.7 per cent) villages in this cluster and the average of the proportion of asset-less households in the villages of this cluster is estimated to be 40.2 per cent with a standard deviation of 0.25. Most of the poverty hotspots (villages) in rural India are located in these three clusters

Table 4: Rural poverty hotspots (villages) across states/Union Territories of India.

State/Union Territory	Total number of villages	Number of poverty hotspots	Proportion of poverty hotspots in the country (Per cent)	Proportion of poverty hotspots within the state (Per cent)
Jammu & Kashmir	6321	907	0.76	14.35
Himachal Pradesh	17844	570	0.48	3.19
Punjab	12152	23	0.02	0.19
Chandigarh	5	0	0.00	0.00
Uttarakhand	15685	2531	2.13	16.14
Haryana	6636	103	0.09	1.55
Delhi	101	2	0.00	1.98
Rajasthan	43180	8715	7.34	20.18
Uttar Pradesh	97654	1928	1.62	1.97
Bihar	39009	7607	6.41	19.50
Sikkim	425	61	0.05	14.35
Arunachal Pradesh	5220	2705	2.28	51.82
Nagaland	1399	660	0.56	47.18
Manipur	2353	858	0.72	36.46
Mizoram	703	274	0.23	38.98
Tripura	862	363	0.31	42.11
Meghalaya	6454	3430	2.89	53.15
Assam	25345	5057	4.26	19.95
West Bengal	37140	6773	5.71	18.24
Jharkhand	29423	6627	5.58	22.52
Odisha	47607	13570	11.43	28.50
Chhattisgarh	19434	5491	4.63	28.25
Madhya Pradesh	51847	24225	20.41	46.72
Gujarat	17819	4513	3.80	25.33
Daman and Diu	19	0	0.00	0.00
Dadra and Nagar Haveli	65	36	0.03	55.38
Maharashtra	40862	12552	10.58	30.72
Andhra Pradesh	26264	6737	5.68	25.65
Karnataka	27343	2257	1.90	8.25
Goa	320	5	0.00	1.56
Lakshadweep	5	0	0.00	0.00
Kerala	1017	2	0.00	0.20
Tamil Nadu	15006	44	0.04	0.29
Puducherry	90	0	0.00	0.00
Andaman and Nicobar Islands	369	64	0.05	17.34
India	595978	118690	100.00	19.92

Source: Calculated by authors based on 2011 population census.

Table 5: The classification table.

Node	Village characteristics			Proportion of households without assets		N	Remarks
	Proportion Scheduled Tribes	Proportion illiterate	Proportion 0-6 years	Mean	SD		
0	All	All	All	0.242	0.202	529129	
1	$\leq 0.306$			0.203	0.167	417207	
2	$> 0.306$			0.387	0.253	111921	
3	$\leq 0.306$	$\leq 0.389$		0.181	0.153	312482	
4	$\leq 0.306$	$> 0.389$		0.268	0.188	104725	
5	$> 0.306$	$\leq 0.480$		0.335	0.227	78602	
6	$> 0.306$	$> 0.480$		0.510	0.288	33319	
7	0	$\leq 0.389$		0.155	0.148	184398	
8	$> 0 \leq 0.306$	$\leq 0.389$		0.217	0.152	128083	
9	$\leq 0.306$	$> 0.389 \leq 0.497$		0.246	0.171	70513	Terminal
10	$\leq 0.306$	$> 0.497$		0.315	0.211	34212	Terminal
11	$> 0.306$	$\leq 0.480$	$\leq 0.164$	0.304	0.209	53738	Terminal
12	$> 0.306$	$\leq 0.480$	$> 0.164$	0.402	0.248	24884	Terminal
13	$> 0.306 \leq 0.943$	$> 0.480$		0.449	0.240	17109	Terminal
14	$> 0.943$	$> 0.480$		0.576	0.260	16210	Terminal
15	0	$\leq 0.389$	$\leq 0.172$	0.147	0.142	156410	Terminal
16	0	$\leq 0.389$	$> 0.172$	0.201	0.171	27989	Terminal
17	$> 0 \leq 0.081$	$\leq 0.389$		0.201	0.146	86906	Terminal
18	$> 0.081 \leq 0.306$	$\leq 0.389$		0.250	0.159	41177	Terminal

Source: Authors

On the other hand, the proportion of asset-less households, on average, is found to be the lowest in 156,410 (29.8 per cent) villages of the country where there is no Scheduled Tribes population, illiteracy rate is less than 39 per cent and the proportion of the population aged 0-6 years in the village is less than or equal to 17.2 per cent (Node 15). The average of the proportion of asset-less households in the villages of this cluster is found to be 14.7 per cent with a standard deviation of 0.14. The proportion of asset-less households has also been found to be low, on average, in those villages where Scheduled Tribes population is less than 10 per cent and illiteracy is low, although proportion of the population aged 0-6 years in these village is relatively high. The classification modelling exercise thus suggests that hotspots of poverty in rural India can be traced in terms of three village level characteristics - proportion of Scheduled Tribes population, level of illiteracy or, equivalently, level of literacy and the proportion of the child population – population below 7 years of age – in the village. The proportion of child population, it may be pointed out, reflects the level of fertility in the village, although in a crude sense. Table 6 presents defining characteristics of the households in villages of different clusters identified.

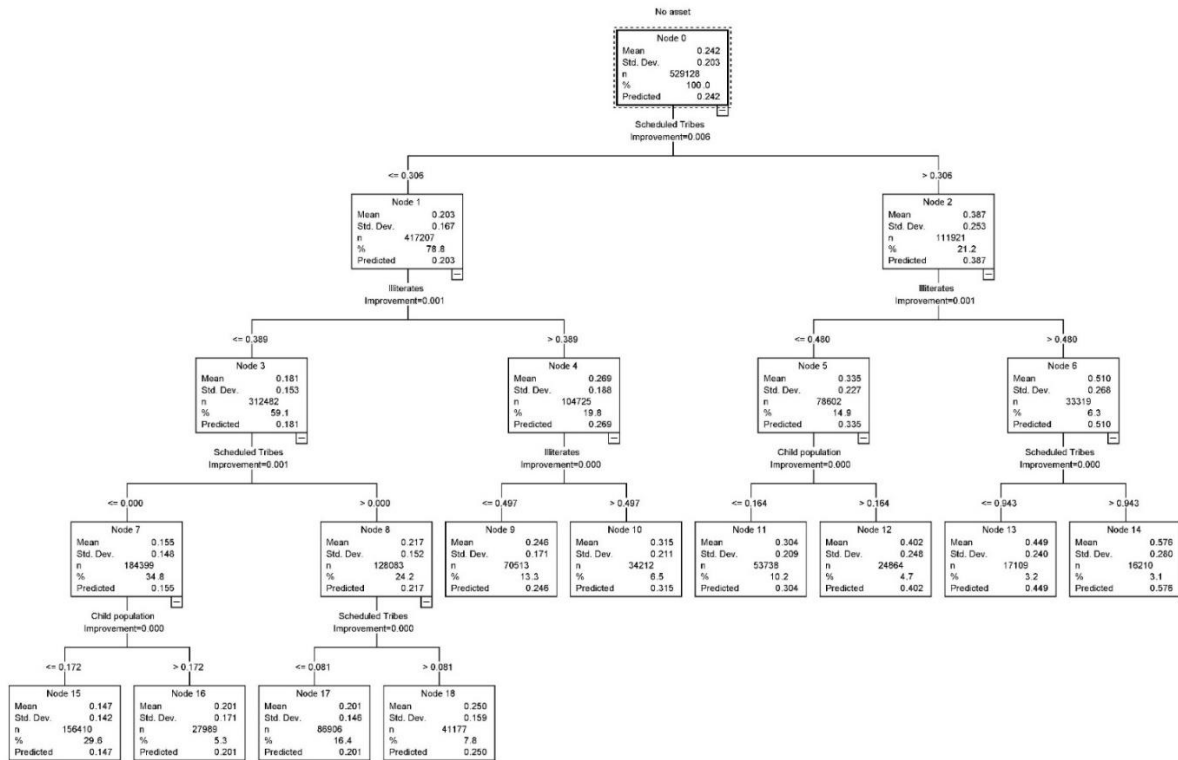


Figure 3: The classification tree.

Source: Authors

Table 6: Distinguishing characteristics of different clusters of villages.

Node	Number of villages	Total households	Assetless households		Average household size	Population 0-6 years (Per cent)	Scheduled Castes (Per cent)	Scheduled Tribes (Per cent)	Literates (Percent)
			Number	Per cent					
15	156410	39857799	5847599	14.67	5.12	13.08	23.11	0.00	74.08
17	86906	46669856	8761959	18.77	4.69	12.80	19.89	1.81	75.62
16	27989	6563659	1379113	21.01	5.86	18.91	19.67	0.00	68.10
18	41177	14063693	3525452	25.07	4.58	12.85	17.06	16.60	74.27
9	70513	25999288	6578059	25.30	5.07	16.41	19.94	2.76	56.49
11	53738	11242409	3477008	30.93	4.62	12.92	7.73	62.73	69.44
10	34212	10704636	3314451	30.96	5.28	18.75	16.72	2.39	43.40
12	24884	4084972	1711059	41.89	5.10	18.87	5.42	73.84	63.37
13	17109	3520730	1550121	44.03	4.76	17.81	8.08	66.47	42.99
14	16210	2051770	1233295	60.11	5.14	19.44	0.45	98.53	37.69
All	529128	164758812	37378116	22.69	4.94	14.51	18.61	10.95	67.82

Source: Authors

## Conclusions and Policy Implications

This paper has identified poverty hotspots in rural areas in terms of these villages where at least 40 per cent households are asset-less households. Data available through 2011 population census suggest that there are almost one fifth villages in the country are poverty hotspots. Moreover, more than 40 per cent of these poverty hotspots are located in only three states – Madhya Pradesh, Odisha, and Maharashtra. Among different states/Union Territories, there is high concentration of poverty hotspots in north-eastern states and in Madhya Pradesh. The analysis also suggests that main determinants of household poverty in rural India are social class composition of the population, extent of literacy and the level of fertility. This means that efforts to reduce poverty in the rural areas of the country should focus on villages which are dominated by Scheduled Tribes population with an attempt to increase literacy and reduce fertility.

Findings of the present study are comparable with estimates prepared by the Government of India (Government of India, 2013). However, official estimates are inherently restricted up to state/Union Territory level only, because of data limitations. They contribute little to enhance our understanding about the extent of poverty below the state/Union Territory level. Although, the present study is based on the data available through the 2011 population census, yet it provides intriguing insights about the household poverty and poverty hotspots (villages) in rural India. To the best of our knowledge, this is the first pan-India study that has identified poverty hotspots and their distinguishing characteristics in rural India. The findings of the present study have important policy implications for poverty eradication. It is obvious that increasing individual income or consumption, alone, may not be adequate enough to reduce household poverty until these efforts are effectively backed up by efforts directed towards universalising education and reducing fertility. The analysis also suggests that poverty hotspots identified should have a targeted policy interventions for an accelerated reduction in poverty in rural India. It is also clear that poverty alleviation interventions must be integrated with interventions directed toward promoting education and reducing fertility.

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