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A Geographical Study of the Himalayan Towns of India

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Abstract An attempt has been made in this paper to analyze the population growth, population density, and sex ratio of a total of 540 urban centers/towns belonging to twelve states/ regions of the Indian Himalaya. We analyze the population distribution, town distribution, growth of towns, density patterns of towns, sex composition, and status wise population based on the size class of towns as per the 2011 Census in particular. In the 2011 Census, the Indian Himalayan Region (IHR) consisted a total of 46,790,642 persons living in 61,592 inhabited villages and 540 urban centers, accounting for 3.87% of the total population of the country. The Indian Himalaya hold an urban population of 12,079,291, persons, which accounts for 3.2% of the nation's total urban population as of 2011. The urban population constitutes 25.8% of the total population of the IHR. Of the total 109 districts in the IHR, two districts (1.83%) of Himachal Pradesh, namely Lahul and Spiti and Kinnaur districts, have no urban population. It is interesting to note that the urban population of the IHR had increased by 567.3% in the period 1901–2011, which is more than two folds (1,358.5%) of the national growth of urban population in India. Of the total 540 urban centers studied, 92 (17%) places were recognized as urban centers for the first time in the 2011 Census. One of the striking issues affecting the Himalayan demography is that one-tenth (56) or 10.4% of urban centers have registered negative growth ranging from 0.2% to 81.8% on the one hand, and 32 (5.9%) towns have registered a range of 100% to 3,909.9% decadal growth from 2001 to 2011 on the other hand. However, the growth of urban population in the IHR has been fluctuating from decade to decade. The density used for calculating the pressure of population on the land of the Indian Himalayan towns varies from 49 persons per km^2 to 85,654 persons per km^2; however, it has not been computed for 59 (10.9%) towns because of the unavailability of the land area in the towns of Arunachal Pradesh (27), Nagaland (26), and Manipur (6). The sex ratio of the Himalayan towns varied from 4 females per 1,000 males to 1,209 per 1,000 males in the 2011 Census. Only 93 (17.3%) towns recorded more than 1,000 females per 1,000 males, with 82.7% of the towns recording low sex ratio.

Key words spatial, urbanization, negative growth, density, urban centers, towns

I. Introduction

Academics and governments have no doubt that rapid urbanization is one of the biggest social transformations in human history. The topmost global question in the government's national agenda is how to make cities sustainable (Savage, 2018). The level of urbanization is a strong indicator of economic development. These two stated aspects have a positive correlation. Towns with higher economic growth have a higher level of urbanization. The contribution of the service sector has increased since independence, particularly in the towns of the Indian Himalayan Region (IHR). On the contrary, the IHR is experiencing several environmental and socio-economic problems. In such a situation, an urban growth, which is rapid, unplanned, and unregulated is highly alarming and creates several problems. A number of lesser known places of the IHR have started to undergo urbanization because of the extension of connectivity by rail, road, and air, expansion of tourism, the establishment of various districts, tehsils (sub districts), block-level offices, educational and medical institutions, and economic globalization. Several studies have addressed urbanization through a diverse range of themes in different countries/regions of the world (Acioly and Davidson, 1996; Paiz and Scott, 2004; Hedblom and Soderstrom, 2008; Geymen and Baz, 2008; Sharma, 1981, 1992; Tripathi, 1987; Bose, 1970, 1978; Dube, 1988; Mukharji, 1973, 1975; Chandna, 1976, 2014; Bhutia, 2012, 2015; Kavitha and Gayathri, 2017; Koiri, 2014; Bhagat, 2011; Pant, 2003, 2012, 2013; Savage, 2018; Pant and Chand, 2013, 2018, 2020; Pant et al., 2018; Chand and Thakur, 1983, 1986, 1991; Chand, 2013, 2017; Taragi et al., 1995). A review of previous studies on the subject concluded that there has been no study on the entire IHR. The present study will thus, fill this academic gap. The main objective of this study is to analyze the population growth, population density, and sex ratio patterns of 540 urban centers in particular and examine the process of urbanization in the IHR in general.

The total population of any geographical unit has been divided into two groups, namely rural and urban, in the Census of India While the total number of rural residents is considered rural population, the total number of urban residents is considered urban population. The percentage

of the entire population living in urban settlements is a simple method used for determining the degree of urbanization in any region. From a demographic standpoint, urbanization is an increase in the proportion of urban population to the total population in a specified period. As long as the urban population to total population increases, there is urban growth and the process of urbanization is at work. Another viewpoint conceives urbanization as the increased participation of urban residents in secondary, tertiary, and quaternary occupations, leading to increased productivity and industrialization. From a behavioral standpoint, urbanization can be understood as a process that leads to changes in attitudes and values, and is characterized by a large population, high population density, and heterogeneity among its residents. As per the Census of India, there are two types of urban places. First, the places that are notified by states/UTs. Places such as municipality, corporation, cantonments, notified town area committee, nagarpalika (municipal board), nagar panchayat (city council), city municipal council, estate office, industrial notified area, and industrial township are included within the category of urban places. Second, the settlements that is considered as towns and has a minimum of 5,000 population, have more than 75% of the male working population engaged in non-agricultural activities, and have more than 400 persons per square kilometer as their population density. These places are recognized as census towns.

II. Objectives, Data Source, and Methodology

The primary purpose of this paper is to analyze the population growth, land-man ratio (arithmetic density), and sex composition of the 540 urban centers in the IHR in particular and the distribution of urban population from 1901 to 2011 in the twelve states/regions of the IHR in general. The second aim of the present investigation is to explain the distribution and growth of all Himalayan towns as per the 2011 Census.

The information for the present study has been collected from the website of the Census of India, 2011.[1] Suitable analytical tools and techniques have been used for the analysis and interpretation of data. It is notable to mention that the population for the years 1981 and 1991 is not available for Assam Hills and Jammu and Kashmir, respectively. Of the total 540 towns in the region, areas falling under 59 (10.9%) towns of Arunachal Pradesh, Nagaland, and Manipur are not available for the computation of land-man ratio (arithmetic density). Some of the states of North Eastern Himalayan Region were created post independence. These are some of the limitations that have affected the data output considerably. However, the pace of urbanization observed in the twentieth century and the population growth, population density, and sex composition witnessed during the first decade of the twentieth-first century are amply visible in the 540 urban centers of the IHR, which form the core of the present study.

III. Study Area

The IHR constitutes the area of study of this present analysis. The area consists of 10 states (Jammu and Kashmir, Himachal Pradesh, Uttarakhand, Sikkim, Arunachal Pradesh, Nagaland, Manipur, Mizoram, Tripura, and Meghalaya), which completely fall in the region, and two mountainous regions of West Bengal (Darjeeling district) and Assam (Dima Hasao and Karbi Aonglong districts), which partially fall in the region. From a geological and structural standpoint, Meghalaya and some portions of the North Eastern states originally belong to the genesis of the Deccan Plateau. However, considering the mountainous nature of the entire region, the entire area has come to be considered as one unit for planning purposes (Anonymous, 2010).

The area forms the International northern boundary of India, extending from Nanga Parvat (8,126 m) in the west to Namcha Baruwa (7,755 m) in the east. The area has a length of about 2,500 km and a width ranging from the south to north of approximate 160 to 400 km. Extending between 700 47′ and 97022′ East longitudes and 21057′ and 37015′ North latitudes, the IHR encompasses an area of about 533,586 km^2, which accounts for 16.23% of the country's total land area (Figure 1). As per the 2011 Census of India, the IHR has a population of 46,790,642 persons across its 61,592 inhabited villages and 540 urban centers, accounting for 3.87% of the total population of the country. The total number of towns in the IHR is 540 (530+10=540). However, four towns, namely Imphal, Nambol, Lilong and Samurou, of Manipur have been divided into nine civic units by the 2011 Census of India. These civic units are spread over different administrative divisions and enumerated as separate major and minor towns. These towns are also categorized on the basis of different size class in accordance to their population. Kral Pora of Jammu and Kashmir is also divided into two urban centers, namely Kral Pora (Kupwara tahsil) and Kral Pora (Chandura tahsil). Similarly, the town of Devprayag in Uttarakhand is divided into two parts and finds itself located in two districts—the major part lies in

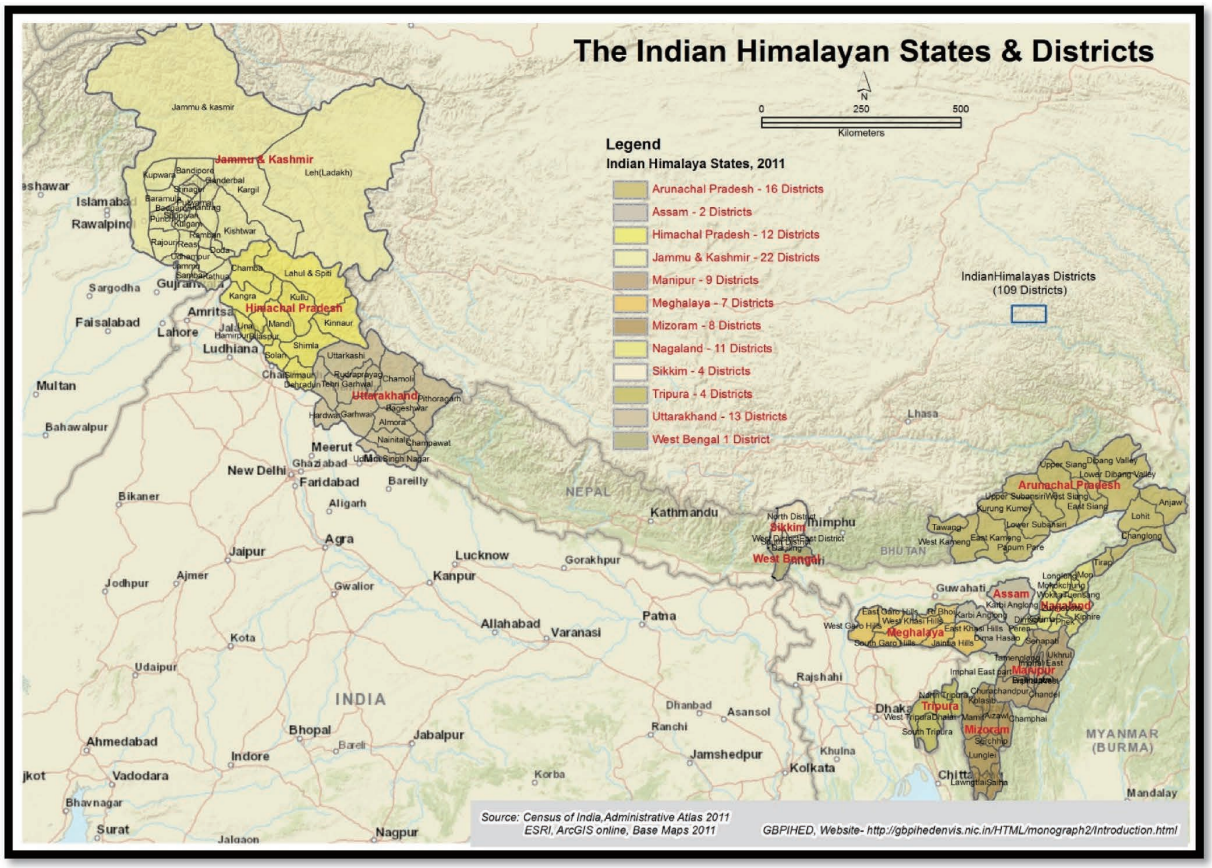

Figure 1. Administrative set up of the Indian Himalayan Region in 2011
Source: Census of India Administrative Atlas, 2011 and Pant et al. (2018).

the Tehri district and the minor part lies in the Pauri district. In the present paper, the urban centers of Manipur and Jammu Kashmir are considered separately and the various parts of Devprayag town of Uttarakhand are considered as one urban center, which is included as part of the Tehri district. As per the 2011 Census of India, the urban population of the area under study is 12,079,291 persons, which is about 3.2% of the total urban population of the nation. Of the total population of the concerned region, 25.8% of the population is urban, which is lower than the country's average (31.2%). The region has a total of 109 districts, which account for 17% of the total 640 districts in the country as per the 2011 Census.

IV. Regional Distribution and Growth of Urban Population

According to the 2011 Census, about 25.8% (12,079,291 persons) of the total population (46,790,642 persons) of the concerned region lives in 540 urban centers, which is lesser than the national average (31.2%). Table 1 shows that the urban population percentage varies significantly across the region, from being just 10% in Himachal Pradesh to being 52.1% in Mizoram. Mizoram is the most urbanized state of the IHR in terms of the percentage of persons living in urban centers. The states of Jammu and Kashmir and Uttarakhand hold 28.42% and 25.24% of the total urban population of the IHR (Figure 2).

The urban centers of Jammu and Kashmir account for 28.42% of the IHR and 0.91% of the country's urban population, which is the largest share contributed by any state/region in the IHR. Three states/regions have urban populations that constitute more than 30% of the total population. These are W.B. Hills (39.4%), Manipur (32.5%), and Uttarakhand (30.2%). Fifty percent of states in the IHR have an urban population ratio of 20 to 30%. Assam Hills is second last in the list, having an urban population of just 15%. The remaining 10 states/regions have an average urban population of just 46.44%. The average size of the urban centers in the IHR is calculated out to be 22,369 persons, which is about one-third of the country's average size (61,109 persons per urban center) (Figure 2).

In comparison to the country's average urbanization, the IHR constitutes a low degree of urbanization. The difficulties faced by the mountainous terrain to develop various means of transportation, the limitations of natural resources, etc. may explain the limited urban development of the region.

Table 1. Percentage of urban population to the total population, 1901–2011

Year	Jammu & Kashmir	Himachal Pradesh	Uttarakhand	Sikkim	Arunachal Pradesh	Nagaland	Manipur	Mizoram	Tripura	Meghalaya	Assam Hills	W.B. Hills	Indian Himalayan Region
1901	8.4	4.0	7.8	0.0	0.0	3.0	0.0	0.0	3.7	2.8	0.0	8.0	6.2
1911	10.6	3.1	8.5	0.0	0.0	2.3	0.0	0.0	3.0	3.5	0.0	8.8	6.7
1921	10.5	3.4	9.2	0.0	0.0	1.8	0.0	0.0	2.5	4.1	0.0	9.8	7.0
1931	11.7	3.6	8.5	0.0	0.0	1.5	0.0	0.0	2.5	5.5	0.0	13.1	7.9
1941	13.0	3.8	10.3	0.0	0.0	1.8	0.0	0.0	3.4	6.9	1.1	14.9	8.2
1951	14.1	6.3	13.5	2.0	0.0	1.9	0.0	3.5	6.7	9.7	1.3	20.6	10.5
1961	16.2	6.3	13.7	4.2	1.7	5.2	0.0	5.4	9.0	15.3	1.2	23.2	11.3
1971	18.5	6.8	16.3	10.4	4.6	10.0	12.4	9.5	7.8	14.5	3.4	23.1	13.4
1981	21.5	7.5	18.5	17.0	8.2	15.5	23.3	24.7	11.0	18.1	N.A.	27.2	17.0
1991	N.A.	8.6	22.4	10.0	12.8	17.2	25.6	46.1	11.7	18.6	12.9	30.2	13.6
2001	27.1	9.7	25.7	9.4	19.8	17.2	24.8	49.6	19.8	19.6	15.1	43.9	22.9
2011	27.2	10.0	30.2	25.2	22.9	28.9	29.2	52.6	26.2	20.1	15.0	39.4	26.0

Note: Excludes the figures of Jammu & Kashmir, where census was not conducted in 1991. It also excludes the figures of Assam, where census was not held in 1981 N.A. stands for not available.
Source: Census of India, 2011.

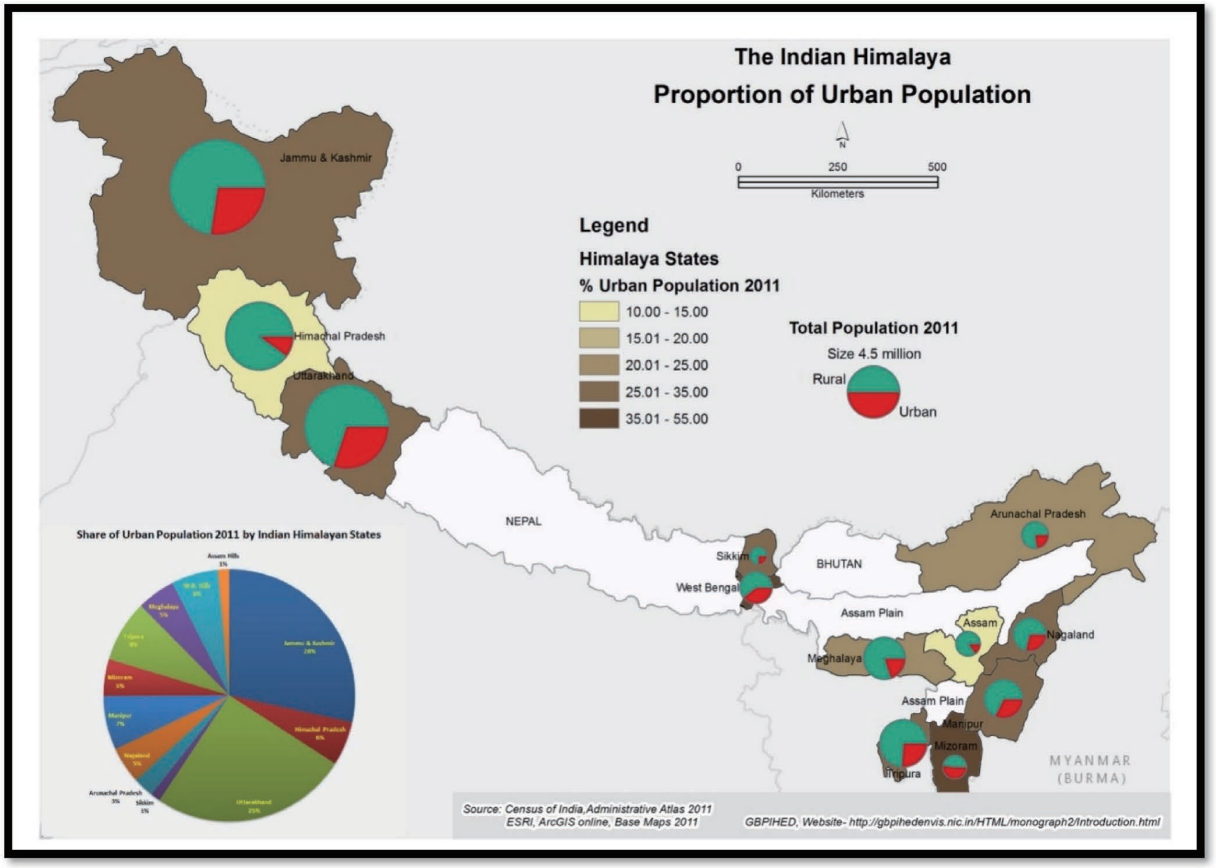

Figure 2. Proportion of urban population to the total population for the Indian Himalayan Region
Source: Census of India, 2011 and Pant et al. (2018).

However, the districts that hold rich potential for revenue in the fields of tourism and horticulture have a more urban population and hold increased possibility for urban development in the future. Eight districts of the IHR have urban populations that constitute more than 50% of their total populations. These are Srinagar (98.6%), Aizawl

(78.63%), Imphal West (62.33%), Kolasib (55.84%), Dehradun (55.52%), Papum Pare (54.51%), Dimapur (52.23%), and Jammu (50.00%).

In 1901, the urban population of the IHR constituted only 6.2% of the region's total population (452,866 persons), lower than the national average of 10.29%. As per the 2011 Census, there were only 54 urban centers.

It is interesting to see that, of the 54 towns; Uttarakhand had the highest number of towns, namely 20, followed by Himachal Pradesh with 19, and 10 urban centers located in Jammu and Kashmir. The remaining five urban locations were found in Kohima village, Agartala, Shillong, Darjeeling, and Kurseong. This shows that, in 1901, there were only five towns in the eastern part of the Himalayas. The urban population of the IHR had increased by 2,567.3% from 1901 to 2011, which is more than two folds (1,358.5%) of the national growth during the same period.

The growth of urban population in the IHR and in the country has been fluctuating from decade to decade owing to the changes in the definition of standards of the urban population. Only seven states/regions had an urban population in 1901. The state of Jammu and Kashmir held the maximum share of urban population; 8.4% of the urban population of the IHR came from the respective state. This was followed by W.B. Hills, with 8% of the urban population of the entire IHR coming from the respective state. Uttarakhand held the highest number of towns in 1901. It ranked third in urban population share, representing 7.8% of the total urban population of the IHR. Like Uttarakhand, the urban population of Himachal Pradesh was just 4% in 1901. It is thus, clear that the population sizes of the urban centers of Uttarakhand and Himachal Pradesh were very small when compared to the towns of Darjeeling, Kurseong of W.B. Hills and Shillong, Agartala, and Kohima village.

During 1901 to 1911, the IHR registered 17.2% urban growth, while it was only 0.36% at the national level (Table 2). Of the Himalayan states; Meghalaya recorded 41.8% urban growth, followed by Jammu and Kashmir with 34.3%. Himachal Pradesh, however, registered a negative growth of 24.4%. The growth in the urban population decreased considerably from 17.2% to 7.8% in the following decade of 1911 to 1921; the country, however, recorded an urban growth of 8.26% in the same decade. During this decade, only Nagaland registered a negative growth of 18.5%. The remaining states showed a positive, but a lower growth rate than in the previous decade. The pace of urban growth in the Himalayan states from 1901 to 1921 was very slow. The year 1941 marks a significant demographic divide in the history of the urban growth of the IHR and the country.

The average urban growth rate of the Himalaya and the country slowed down further in 1931. About 8.2% of the total population of IHR was urban in 1941, which was lower than the country's average of 13.86%. However, a higher urban growth of 28.9% was recorded between 1931 and 1941 in the IHR, which was still lower than the country's urban growth of 31.98%. It is thus, implied that the

Table 2. Growth of urban population during 1901 to 2011 (% increase-decrease)

Year	Jammu & Kashmir	Himachal Pradesh	Uttarakhand	Sikkim	Arunachal Pradesh	Nagaland	Manipur	Mizoram	Tripura	Meghalaya	Assam Hills	W.B. Hills	IHR	India
1901–1911	34.3	24.4	14.8	0.0	0.0	10.7	0.0	0.0	6.5	41.8	0.0	14.9	17.2	0.36
1911–1921	5.1	12.1	7.2	0.0	0.0	−18.5	0.0	0.0	13.4	26.1	0.0	16.8	7.8	8.26
1921–1931	23.0	10.9	0.3	0.0	0.0	−1.1	0.0	0.0	23.7	54.3	0.0	51.5	16.1	19.12
1931–1941	21.6	17.6	27.6	0.0	0.0	27.1	0.0	0.0	84.7	43.9	0.0	33.8	28.9	31.98
1941–1951	19.8	77.0	32.1	0.0	0.0	17.6	0.0	0.0	1.4	53.2	47.4	62.4	42.2	41.40
1951–1961	26.0	18.2	19.5	149.6	0.0	364.4	0.0	105.4	141.9	100.8	50.6	53.1	36.6	26.41
1961–1971	48.4	31.4	32.6	218.3	270.4	168.3	0.0	122.3	18.1	25.3	371.6	24.6	53.1	38.23
1971–1981	50.4	37.2	30.8	146.6	142.6	133.9	148.9	283.8	85.3	64.0	N.A.	54.6	60.7	44.51
1981–1991	N.A.	37.6	32.8	−24.7	114.3	73.2	42.1	161.0	43.4	36.6	581.6	41.0	5.5	36.84
1991–2001	113.4	33.5	27.7	25.3	96.5	64.6	21.2	38.7	96.0	37.8	44.2	79.8	110.4	32.60
2001–2011	25.0	16.6	39.6	202.8	46.0	66.6	46.4	29.7	51.7	31.1	15.9	3.0	34.6	31.80
Inception Year to 2011	1,799.9	792.3	1,874.0	5,496.9	5,424.3	18,359.9	528.2	8,126.9	14,887.6	6,089.1	11,827.6	3,302.8	2,567.3	1,358.5

Note: Excludes the figures of Jammu & Kashmir where census was not conducted in 1991. Also excludes the figures of Assam where census was not held in 1981.
Source: Census of India, 2011.

pace of urban development in the IHR was slower than that of the country's. The rate of urban growth since 1931 has been increasing, except from 1951 to 1961. However, five Himalayan states recorded an urban growth of more than 100% during the same decade of 1951–1961. This was because of the new towns included in the category of urban centers. These states were Nagaland (364.4%), Sikkim (149.6%), Tripura (141.9%), Mizoram (105.4%), and Meghalaya (100.8%). It may be worth mentioning here that the fall in the average growth rate of urban population from 1951 to 1961 was because of the conceptual change in the definition of urban centers.

The definition of an urban center in India was rationalized and made stricter during the time of the 1961 Census. As a result, a large number of towns were declassified. The growth of urban population in the IHR as well as in the country picked up pace again in the subsequent decades, reaching growths of over 53.1% and 38.23% during 1961 to 1971 and 60.7% and 44.51% during 1971 to 1981, respectively. Table 2 shows similar trends for the Himalayan states during the same specified decades. However, during the inter-decadal period of 1981 to 1991, the urban growth rate significantly declined to 5.5% and 36.84% for the IHR and the country owing to the decline in the magnitude of rural population migration to urban areas. Another determining factor for the decline was that the census was not conducted in Jammu and Kashmir and Assam in 1991 and 1981.

The process of urbanization was slow even during 2001, with only 22.9% of the IHR's population having urban residence, which was lower than the country's average of 27.81%. It improved marginally from 13.6% in 1991 to 22 9% in 2001 for the IHR and from 25.49% in 1991 to 27.81% in 2001 for the entire country. The level of urbanization varies from a minimum of 9.4% found in Sikkim to a maximum of 49.6% found in Mizoram. Mizoram is followed by W.B. Hills, with 43.9% of its population being urban. The IHR recorded an unprecedented urban growth of 110.4% in the period 1991 to 2001, which is much higher than the urban growth of the nation (32.6%). Due to the inclusion of Jammu and Kashmir in the 2001 Census for population enumeration, the IHR registered a growth rate of 113.4% from 1981 to 2001 (20 years). The process of urbanization also intensified. In 2011, the percentage growth of urban population went up to 25.8% in the IHR and 31.14% in India. The number of urban dwellers in the IHR increased from 9,088,547 persons in 2001 to 12,079,291 persons in 2011; while in the country, it increased from 286,119,689 persons in 2001 to 377,106,125 persons in 2011. Thus, the urban populations of the IHR and country saw an increase of 34.6% and 31.8% in a matter of a decade. In 2001, there were 421 towns in the Himalaya With an addition of 119 towns in a decade, the tally reached to 540 in 2011. Thus, there was an increase of 28.3% in the number of towns in the IHR during the same decade. It reflects that a significant number of large villages earned urban status for the first time in 2011 owing to the growth of census towns. The largest increase in the number of towns was found in the category of 174 census towns, which constituted 32.46% of the total 540 towns. These are those large villages that were generally situated in the plain areas of Tarai, Bhabar, Duns, and wide river valleys, which grew into small towns.

Table 1 reveals that there are wide inter-state and decadal variations both in the proportion of urban population and urban change from 1901 to 2011. On the one hand, there are states like Mizoram, where the urban population grew from 49.6% in 2001 to 52.6% in 2011. On the other hand, there are states like Himachal Pradesh, where the urban population grew by only 0.3% during 2001–2011. It is very striking to note that the proportion of urban population decreased in Assam Hills from 15.1% in 2001 to 15% in 2011, a decline of 0.1%. These two states are topographically more inaccessible, with there being little scope for urban development. The proportion of urban population almost remained stagnant, witnessing just marginal changes. Of the total 12 states/regions, six states/regions had a higher proportion of urban population than the overall average of 26% for the IHR. These were Mizoram (52.65), W.B. Hills (39.4%), Uttarakhand (30.0%), Manipur (29.2%), Nagaland (28.9%), and Tripura (26.2%). Most of these states/regions had a large proportion of their workforce placed in tertiary activities and service sectors. These states witnessed significant development in institutions and infrastructure. The average growth of urban population in the IHR in 2011 was 34.6%, which was higher than the average growth of the nation (31.8%). The growth in urban population was more than the growth in the total population.

V. Spatial Growth in Towns during 2001–2011

In line with the 2011 Census, 540 urban centers/towns of the IHR are considered for this study of urban growth from 2001 to 2011. The growth rate varies from a negative 81.8% in Gangotri to a positive 3,909.9% in Tral. Table 3 shows that 92 (17%) towns were included as urban centers for the first time in the 2011 Census. The growth rate of such newly created urban centers cannot be computed,

Table 3. Urban centers/towns based on the ranges of population growth from 2001 to 2011

Population Growth Range (%)	Urban Centers/Towns	
	No.	%
First time Recognized as Urban Centers	92	17.0
Negative	56	10.4
Up to 10	73	13.5
10 to 20	110	20.4
20 to 30	76	14.1
30 to 40	48	8.9
40 to 50	15	2.8
50 to 100	38	7.0
100 to 200	21	3.9
200 to 400	6	1.1
Above 400	5	0.9
Total	540	100.0

Source: Census of India, 2011.

for the population data of previous census (2001) is not available. It is a considerable aspect that, of the total urban centers, 56 (10.4%) of them show negative growth rate, ranging from 0.2% in Amarpur to 81.8% in Gangotri. Highly depopulated (negative population growth) urban centers are located in inaccessible locations, politically unrest towns, and military areas (cantonment), where the conditions for expansion are not favorable. These are Amarpur, Bakloh Cantt., Kishtwar, Kunzer. Baramula, Bhalwal, Ranikhet, Arnia, Bhota, Jammu Cantt. (CB), Chamba, Mandi, Dehradun (CB), Zunheboto, Reasi, Banbasa, Darlawn, Nagla, Nandprayag, Shillong (CB), Dalhousie, Tehri, Purana Daroorh, Spituk, Wokha, Ram Nagar, Bashohli, Bairatisal, Dhwajnagar, Dwarahat, Maralia, Palampur, Sool Koot, Devprayag, Jutogh Cantt., Chhatha, Ramban, Hiranagar, Roorkee (CB), Dogadda, Chak Kalu, Maibong, Nihalpur Simbal, Samba, Kasauli Cantt., Marhi, Lansdowne, Virbhadra IDPL, Sabathu Cantt, Almora (CB), Siliguri, Now Gam, Bari Brahamana, Mahur, Khonmoh, and Gangotri. Of the total urban centers in the IHR, 73 (13.5%) of them only experienced 0.2 to 10% growth. If the same growth trend (2001 to 2011) continues in these centers, these centers will register negative growth rates in the 2021 Census. It is due to the huge out-migration from towns, where area-wise expansion is limited, that the costs of estates and the maintenance charges for old structures are very high.

A maximum of 20.4% (110) urban centers fall between the growth ranges of 10% and 20%. There was a decline in the number of towns experiencing growth beyond this range. Approximately 14.1% and 8.9% of the urban centers recorded 20% to 30% and 30% to 40% growth from 2001 to 2011. Of the total 540 urban centers in the IHR, 38 (7%) towns fall into the group of 50 to 100% growth. More than 100% growth is recorded by the 5.9% (32) of the urban centers in the IHR. These are Tral, Luwangsangbam, Doda, Kolasib, Namchi, Gyalshing, Rudraprayag, Mangan, Gangtok, Jorethang, Achhabal, Rangpo, Qazi Gund. Ambassa, Rawali Mahdood, Nathan Pur, Sarang, Nowshehra, Gulmarg, Uri, Haripur Kalan, Chuglamsar, Fatehpur Range (Dhamua Dunga Area), Central Hope Town, Lakhanpur, Kamalpur, Agartala, Jagjeetpur, Gakulpur, Ganderbal, Awantipora, and Shafipur. The high growth rate is because of the heavy in-migration from rural areas to urban centers and fast transformation of villages into urban centers.

VI. Regional Population Density in 2011

As per the 2011 Census, the average urban density of the IHR is calculated to be 2,774 persons per km^2, which is much lower than the density of the nation (3,689 persons per km^2). In this regard, W.B. Hills had the highest population density (4,743 persons per km^2) in the IHR. It is closely followed by Manipur (4,647 persons per km^2), Sikkim (4,015 persons per km^2), and Uttarakhand (3,381 persons per km^2). The density of Arunachal Pradesh has not been calculated because of the absence of urban areas. The state of Mizoram recorded the lowest urban population density of 974 persons per km^2 (Table 4).

Table 4. Average density of urban population in 2011

Sl. No.	State/Region	Density (Persons Per km^2)
1	Jammu & Kashmir	2,756
2	Himachal Pradesh	2,542
3	Uttarakhand	3,381
4	Sikkim	4,015
5	Arunachal Pradesh	N.A.
6	Nagaland	2,345
7	Manipur	4,647
8	Mizoram	974
9	Tripura	2,453
10	Meghalaya	2,105
11	W.B. Hills	4,743
12	Assam Hills	2,963
Indian Himalayan Region		2,774
India		3,689

Source: Census of India, 2011.

VII. Spatial Population Density in 2011

Of the total 540 urban centers in the IHR, the arithmetic density of 484 towns/urban centers is computed and presented in table 5. Due to the unavailability of land area in the remaining 56 (10.9%) urban centers, we were not able to calculate the density of these urban centers. The average density of these urban centers ranges from a minimum of 49 persons per km^2 in Purana Daroorh of Jammu and Kashmir to a maximum of 85,654 persons per km^2 in Shafipur of Uttarakhand. Table 5 reveals that 100 (18.5%) urban centers have lesser than 1,000 persons per km^2 density. Of the total urban centers, a maximum of 117 (21.7%) urban centers fall in the range of 1,000 to 2,000 persons per km^2. These two ranges (below 1,000 and up to 2,000) have covered more than one-third (40.2%) of the urban centers of the IHR. This clearly shows that the Himalayan urban centers are loosely habited. The topographical conditions are not favorable for the construction of more residences, and are not capable of providing economic security to its inhabitants. The density of 142 (26.3%) urban centers in the IHR ranges between 2,000 to 4,000 persons per km^2. With regard to the urban density point, a large number of urban centers have low density points in comparison to the other parts of the nation. Seventy-eight (14.5%) urban centers of the IHR have densities of 4,000 to 10,000 persons per km^2. The densities of 41 (7.6%) urban centers of the IHR ranged from 10,000 to 50,000 persons per km^2. These are Mahua Kheraganj, Manglaur, Sukhiapokhri, Sunderbani, Singtam, Tral, Sunhaira, Kishtwar, Devsar, Ramnagar, Landhaura, Kashipur, Jorethang, Lilong (Thoubal) (Major part), Moreh, Thoubal, Darjeeling, Uttar Bagdogra, Sitarganj, Tanakpur, Siliguri, Roorkee, Charar-i-Sharief, R.S. Pora, Madanriting, Shillong, Pynthormukhrah, Sagolband (Part), Hardwar, Nongthymmai, Jaspur, Imphal (MCI + OG) (Minor part), Rudrapur, Akhnoor, Kotdwara, Dhaluwala, Nayabazar, Rakh Gadi Garh, Bajpur, Kichha, and Naoriya Pakhanglakpa.

Table 5. Urban centers/towns based on the ranges of population density, 2011

Population Density Range (Persons Per Km^2)	Urban Centers/Towns	
	No.	%
N.A.	59	10.9
Below 1,000	100	18.5
1,000–2,000	117	21.7
2,000–3,000	81	15.0
3,000–4,000	61	11.3
4,000–5,000	21	3.9
5,000–6,000	22	4.1
6,000–7,000	22	4.1
7,000–8,000	6	1.1
8,000–9,000	5	0.9
9,000–10,000	2	0.4
10,000–15,000	23	4.3
15,000–30,000	13	2.4
30,000–50,000	5	0.9
Above 50,000	3	0.6
Total	540	100.0

Note: N.A. stands for area not available.
Source: Census of India, 2011.

There are three urban centers in the IHR that have more than 50,000 persons per km^2. These are Fatehpur Range (Dhamua Dunga Area) (63,955 persons per km^2) Shafipur (85,654) of Uttarakhand, and Pattan (69,778 persons per km^2) of Jammu and Kashmir. Pattan urban center of Jammu and Kashmir was recognized as an urban center in 1901. It has recorded about 72% population growth from 2001 to 2011 because of the heavy in-migration of persons from rural areas. Fatehpur Range (Dhamua Dunga Area) and Shafipur of Uttarakhand have registered growths of 117.5% and 101.3% from 2001 to 2011. These two urban centers were recognized as urban centers for the first time in 2011. This means that the census operator calculated growth by taking into consideration the rural population for 2001. Fatehpur Range (Dhamua Dunga Area), which is located in the foothills and near the comparatively big city of Halwani, has the potential to accommodate migrants from the inner parts of Kumaon Region, while Shafipur, which is located near Roorkee (Haridwar district), is a good location to attract persons from the Garhwal Region as well as from the district of Western Uttar Pradesh. Both urban centers are mostly located in plain areas, more institutional and accommodation facilities than the other Himalayan urban centers.

VIII. Urban Population's Regional Sex Ratio Pattern in 2011

As per the 2011 Census, the average sex ratio[2] of the IHR in 2011 was 903, which is lower than the average sex ratio of the country (929). While the states of Tripura and Meghalaya have higher number of females than males, the rest of the states/regions of the IHR have a lower number of females. The sex ratio varies from 840 in Jammu and Kashmir to 1,026 in Manipur. Of the total 12 states/regions, four of them fall below the regional average of 903. These include Arunachal Pradesh (890), Uttarakhand (884), Himachal Pradesh (853), and Jammu

Table 6. Sex ratio of urban populations, 2011

Sl. No.	State/Region	Sex Ratio	
		Average	Child
1	Jammu & Kashmir	840	850
2	Himachal Pradesh	853	881
3	Uttarakhand	884	868
4	Sikkim	913	934
5	Arunachal Pradesh	890	957
6	Nagaland	908	973
7	Manipur	1,026	949
8	Mizoram	998	974
9	Tripura	973	947
10	Meghalaya	1,001	954
11	W.B. Hills	966	930
12	Assam Hills	923	945
Indian Himalayan Region		903	896
India		929	905

Source: Census of India, 2011.

and Kashmir (840) (Table 6). In the abovementioned states, the womenfolk continue to have relatively low status, particularly in the urban centers. On the contrary, women in most of the eastern states enjoy comparatively better status. It is worth mentioning that, in the Eastern IHR, the women have all the patrimonial rights. It is interesting to note that, as many as 13 districts (11.92%) of the IHR displayed a high sex ratio of more than 1,001 in 2011, implying that the number of females in all these districts exceeded the number of males. These districts are Imphal West, Aizawl, West Khasi Hills, Peren, West Garo Hills, East Khasi Hills, Senapati (excluding the three sub-divisions), Thoubal, Bishnupur, Lower Subansiri, Churachandpur. Jaintia Hills, and Imphal East.

The IHR's child sex ratio (number of female children per 1,000 male children) in 2011 was 896 for the urban centers, which is lower than the country's average of 905. Mizoram displayed the highest child sex ratio of 974 among the Himalayan states/regions. Mizoram was followed by Nagaland, which recorded a child sex ratio of 973.

This means that, unlike the general urban sex ratio, no state in the IHR recorded a child sex ratio of more than 1,000. However, there were states whose child sex ratios were better than the average sex ratios of the IHR (896) and the country (905). These are Arunachal Pradesh (957), Meghalaya (954), Manipur (949), Tripura (947), W.B. Hills (945), Sikkim (934), and Assam Hills (930). Jammu and Kashmir registered the lowest child sex ratio of 850, followed by Uttarakhand (868), and Himachal Pradesh (881) (Table 6). Unlike the general sex ratio of urban areas, where 13 districts of the IHR had a sex ratio of above 1,001, in the case of the child sex ratio of urban areas, only 8 (7.34%) states had a sex ratio of above 1,000. These include Anjaw, Upper Subansiri, Zunheboto, East Garo Hills, Peren, Lower Subansiri, South Garo Hills, and West Kameng. This implies that the cases of female feticide have spread to all areas covering almost every part of the IHR and the country in general. However, 55 (50.46%) districts in the IHR have a child sex ratio of 901, and in another 25 districts, the child sex ratio ranged between 851 and 900. There are 14 (12.84%) districts where the child sex ratio ranged between 801 and 850, and 5 (4.59%) districts, where the child sex ratio is less than 800.

IX. Spatial Sex Ratio of the Populations of Urban Centers

Sex ratio reflects the sex-based composition of a population in a geographical unit. It is a very important aspect of the population study. In the previous section, we explained the regional or state wise sex ratio pattern. In this section, we are going to explain the spatial sex ratio pattern of a total of 540 urban centers. The sex ratio varies from a minimum of four in Gulmarg, Jammu and Kashmir, to a maximum of 1,209 in Heironk, Manipur. Of all the urban centers, the sex ratio of four (0.7%) urban centers falls below 300. These are Heironk, Kedarnath, Gangotri, and Badarinath, in ascending order. The primary reason for these centers having a low sex ratio is seasonal (summer) habitation. These are statutory urban centers and floating population movement occurs only during the summer or pilgrimage season. A total of 18 (3.4%) urban centers fall in the range of 300 to 500 females per 1,000 males.

It is considerable that the sex ratio of 85 (15.7%) urban centers in the IHR falls below 800. While 137 (25.4%) urban centers have a sex ratio of 800 to 900, 225 (41.7%) urban centers have a sex ratio of 900 to 1,000 (Table 7). A total of 447 (82.8%) urban centers have a low sex ratio, i.e., there are fewer women than men. This indicates the existence of serious social problems in the urban centers of the IHR. The reason for this imbalance is that the primary employment and education seeker, the male, migrates from the rural areas to the urban centers to avail institutional and infrastructural amenities. The migrants leave their female and aged members in villages. As a result, the sex ratio of the rural Himalayan region is high, i.e., there are more women than their counterpart men. The sex ratio of 93 (17.3%) of the total 540 urban centers was satisfactory, i.e., there were more females than males.

Table 7. Urban centers/towns based on the ranges of sex ratio, 2011

Sex Ratio Ranges (Females Per 1,000 Males)	Urban Centers/Towns	
	No.	%
Below 300	04	0.7
300 to 400	09	1.7
400 to 500	09	1.7
500 to 600	12	2.2
600 to 700	16	3.0
700 to 800	35	6.5
800 to 900	137	25.4
900 to 1,000	225	41.7
1,000 to 1,100	90	16.7
Above 1,100 (1,200)	3	0.6
Total	540	100.0

Source: Census of India, 2011.

Low sex ratio in urban centers may to instigate various types of crimes. The influx of uneducated and uncivilized, economically poor male population from backward areas results in the formation of filthy slums and a number of environmental problems.

X. Distribution of Towns

The settlements that were given urban status in the first Census of 1881 were capitals of princely states, administrative headquarters of districts, military stations, hill resorts, education centers, pilgrimages, and business and supply centers. The British influence was very strong with respect to the urbanization of infrastructure in most of the Himalayan towns. There were no such records available on towns before the first three censuses of 1872, 1881, and 1891. As per the first census of the century, the one held in 1901, there were just 54 towns in the IHR. Of these 54 towns, 20 towns were located in Uttarakhand, 19 towns were located in Himachal Pradesh, and 10 (90.7%) towns were located in Jammu and Kashmir. While there were two towns in W.B. Hills, there was one town each in Nagaland, Tripura, and Meghalaya.

The period of 1901 to 2011 has witnessed a decadal increment (Table 8) in the number of towns registered, rising from 54 in 1901 to 540 in 2011 (900% i.e. 8.18% per year). Of the total 540 towns in the IHR, 22.6% of the towns are situated in the undivided state of Jammu and Kashmir, holding the highest percentage share of towns, followed by Uttarakhand, which had 21.3% of the total towns in the IHR. Way back in 1901, Uttarakhand and Himachal Pradesh held first and second position, having 37% and 35.2% of the total towns in the IHR.

XI. Towns by Size Class

The study of size class distribution and growth of several towns is a dominant indicator of urbanization.

Table 8. Number of towns, 1901–2011

Year	Jammu & Kashmir	Himachal Pradesh	Uttarakhand	Sikkim	Arunachal Pradesh	Nagaland	Manipur	Mizoram	Tripura	Meghalaya	Assam Hills	W.B. Hills	IHR
1901	10	19	20	—	—	1	—	—	1	1	—	2	54
1911	33	10	20	—	—	1	—	—	1	1	—	2	68
1921	26	11	23	—	—	1	—	—	1	1	—	2	65
1931	29	16	25	—	—	1	—	—	1	2	—	4	78
1941	29	19	25	—	—	1	—	—	1	2	1	4	82
1951	26	25	34	1	—	1	—	1	1	2	1	4	96
1961	38	30	32	1	2	3	—	1	6	6	1	4	124
1971	44	33	40	9	5	3	9	1	6	6	2	4	162
1981	59	44	65	9	8	7	27	6	10	12	N.A.	6	253
1991	N.A.	55	76	9	10	9	33	22	14	12	9	8	257
2001	110	56	86	9	17	9	37	22	41	16	10	8	421
2011	122	59	115	9	27	26	55	23	42	22	11	29	540
1901–2011	112	40	95	8	25	25	46	22	41	21	10	27	486

Source: Census of India, 2011.

However, the size class of each town represents both the qualitative and quantitative changes in the urban population. The Census of India has classified urban places into six categories, from class I to class VI.

Class I cities are those that have a population of 100,000 or more persons; class II towns are those that have a population ranging between 50,000 and 99,999 persons; class III towns are those that have a population ranging between 20,000 and 49,999 persons; class IV towns are those that have a population ranging between 10,000 and 19,999; class V towns are those that have a population ranging between 5,000 and 9,999 residents; and class VI towns are those that have a population of less than 5,000 persons

XII. Growth of Towns, 1901–2011

Of the 54 towns found in the IHR in the 1901 Census, Uttarakhand had the highest number of towns, namely 20 (37%). These towns were Dehradun, Hardwar, Roorkee, Kashipur, Manglaur, Almora, Haldwani-cum-Kathgodam, Nainital, Jaspur, Mussoorie, Ramnagar, Lansdowne, Jhabrera, Ranikhet Cantt., Srinagar, Landaur Cantt., Rishikesh, Kaladhungi, Chakrata Cantt., and Kotdwara. Himachal Pradesh had the second highest number of towns with 19 (35.2%) urban settlements. These were Shimla, Mandi, Dharmsala, Nahan, Chamba, Kangra, Una, Nurpur, Nalagarh, Bilaspur, Bakloh Cantt, Kasauli Cantt., Sundarnagar, Sabathu Cantt., Dagshai Cantt., Dalhousie, Rampur, Jutogh Cantt., and Solan. While the numbers of towns in Himachal Pradesh were high, their population size was very low. Ten towns (18.5%) were located in the undivided state of Jammu and Kashmir in this list. These were Srinagar, Jammu, Baramula, Sopore, Bandipore, Pattan, Punch, Uri, Kunzer, and Gulmarg. The remaining five towns of Kohima village, Agartala, Shillong, Darjeeling, and Kurseong of the IHR were situated in Nagaland, Tripura, Meghalaya, and W.B. Hills. These 54 towns, with a population of 452,866 persons, accounted for 6.2% of the total population. In 1911, a total of 14 (25.9%) towns were added, taking the total to 68 towns. Interestingly, 23 new towns were added in Jammu and Kashmir, while nine towns of Himachal Pradesh were declassified during the 1901–1911 decade. The remaining states had no change in this decade. In 1921, 4.4% in the average percentage of towns, witnessing a decrease from 68 towns in 1911 to 65 towns in 1921 although the actual urban population increased from the previous decade. At the state level, three towns in Uttarakhand and one town in Himachal attained urban status in 1921, while seven towns of Jammu and Kashmir lost their urban status (declassified) in the 1921 Census. During 1921 to 1931, 13 new towns (20%) were introduced, and as a result, the total number of towns in the IHR increased to 78. From 1931 onwards, the number of towns increased from decade to decade, reaching 540 in 2011. In the whole of the IHR, the highest numbers of towns were found in Jammu and Kashmir, namely 122 (22.6%). This was followed by Uttarakhand, which had 115 (21.3%) towns. The capitals of native principalities, commercial centers located in the piedmont zone, pilgrimage centers, and halting places of herders constituted the initial base of urbanization in the IHR. The army stations—cantonments, hill resorts, health resorts—sanatoria, and the educational centers created by the British rulership later contributed toward the growth of urbanization. The British rulership established new towns for the supply of commodities nearby the hill towns or in the hill-foot contact zone. In general, the level of urbanization in the Himalayan region has been considerable even with there being inhospitable physical conditions; although, most of the towns are small in size. More than one-third of the towns in the IHR fall in the size of class V towns, having populations that range between 5,000 and 9,999 persons.

Only 18 (3.3%) towns fall under class I category and 17 (3.2%) towns fall under class II category. These big towns are mostly settled in plain areas: River Valleys, Dun, Bhabar, Tarai, and the Plain Area of the Indian Himalayas. Approximately 900% growth has been registered by towns from 1901 to 2011. The towns in the eastern Himalayan region have registered record growth right from their inception.

XIII. Population by Size Class

The growth in the number and size class of towns is a strong indicator of urbanization. However, the size class of each town represents both qualitative and quantitative changes in the urban population. The Census of India classified urban places into six categories, as earlier mentioned, from class I to class VI. Of the total 540 towns, 18 fall under class I, 17 fall under class II, 75 fall under class III, 142 fall under class IV, 183 fall under class V, and 105 fall under class VI categories (Table 9). Of the total 18 towns found in class I, six of these towns are in Uttarakhand, followed by there being three towns in Jammu and Kashmir.

The 2011 Census found no class I towns in Assam Hills and Arunachal Pradesh. Of the total population (12,079,291 persons), 42.8% of the population lives in

Table 9. Number of towns by size class, 2011

State/Region	Size Class						
	I	II	III	IV	V	VI	Total
Jammu & Kashmir	3	4	15	30	46	24	122
Himachal Pradesh	1	0	7	7	15	29	59
Uttarakhand	6	6	19	33	37	14	115
Sikkim	1	0	0	2	3	3	9
Arunachal Pradesh	0	1	3	7	7	9	27
Nagaland	1	1	6	6	10	2	26
Manipur	1	1	5	13	27	8	55
Mizoram	1	1	5	3	5	8	23
Tripura	1	0	5	24	11	1	42
Meghalaya	1	2	6	7	5	1	22
Assam Hills	0	1	1	2	5	2	11
W.B. Hills	2	0	3	8	12	4	29
Indian Himalayan Region	18	17	75	142	183	105	540
India	468	474	1,373	1,683	1,749	424	6,171

Source: Census of India, 2011.

Table 10. Percentage of urban population by size class town, 2011

State/Region	Size Class						
	I	II	III	IV	V	VI	Total
Jammu & Kashmir	56.3	8.3	11.0	12.2	9.7	2.5	3,433,242
Himachal Pradesh	24.6	0.0	29.7	16.2	16.8	12.7	688,552
Uttarakhand	46.0	11.1	17.7	14.9	9.2	1.1	3,049,338
Sikkim	65.4	0.0	0.0	14.7	13.5	6.4	153,578
Arunachal Pradesh	0.0	18.7	25.7	31.4	16.0	8.2	317,369
Nagaland	21.5	17.3	32.0	14.6	13.0	1.6	570,966
Manipur	23.1	10.0	18.3	22.2	22.8	3.6	834,159
Mizoram	51.3	10.0	21.7	5.8	6.3	4.9	571,771
Tripura	41.6	0.0	14.3	35.3	8.3	0.5	961,453
Meghalaya	24.0	21.8	29.6	17.3	6.5	0.8	595,450
Assam Hills	0.0	35.2	24.9	17.2	20.0	2.7	175,455
W.B. Hills	56.8	0.0	16.0	14.3	10.7	2.2	727,963
IHR	42.8	9.2	17.7	16.4	11.1	2.8	12,079,291
India	77.04	6.57	8.55	4.91	2.59	0.34	489,466,731

Source: Census of India, 2011.

class I towns alone, which is comparatively lower than the country's average (77.04%). Seventeen towns in the IHR belong to class II category, which hold 9.2% of the total urban population. Himachal Pradesh, Sikkim, Tripura, and W.B. Hills have no class II category towns. Of the total urban population, 17.7% of the urban population lives in 75 class III towns. The remaining 16.4%, 11.1%, and 2.8% of the urban population of the IHR live in class IV, V, and VI towns, respectively (Table 10). More than one-third (33.9%) of the towns of the IHR have only about one-tenth (11.1%) of the total urban population. As a result, the study reveals that the maximum concentration of urban population found in class I cities and the population of other towns are very small because of the unfavorable physiographic conditions and low development in infrastructure (Figure 3).

XIV. Population Density by Size Class

Table 11 brings out the density of the IHR based on the size class of towns. It is worth mentioning that the area details of Nagaland and Arunachal Pradesh are not available. Thus, at the time of density computation, the densities of these states were excluded. The average urban density of the IHR is 2,755 persons per km^2, which is relatively lower than the country's average of 3,081 persons per km^2. It varies from a minimum of 660 persons per km^2 in Mizoram to a maximum of 5,913 persons per km^2 in Manipur. While the urban density of Manipur is 4,743 persons per km^2, that of Sikkim is 4,015 persons per km^2. The urban density of Uttarakhand is also more than 3,000 persons per km^2. The sparse density reflects more area under the city limit. This situation can be better understood from environmental and sanitation points of views. The highest density among the size class towns was found in class I towns, with there being 5,114 persons per km^2, which is more than the class I town of the country (3,688) as well. Among the Himalayan states, the density of class I towns varies from a minimum of 1,667 persons per km^2 in Mizoram to a maximum of 15,015 persons per km^2 in W.B. Hills. The density of W.B. Hills is followed by Meghalaya, which holds 13,825 persons per km^2. Three states—Uttarakhand, Manipur, and Tripura—have urban population densities of 7,765, 6,997, and 6,798 persons per km^2, respectively. States with more towns show lower density. Table 11 shows that the density has been declining from class I to class VI, respectively. The declining densities for the respective classes are 4,667, 2,173, 2,136, 1,603 and 869 persons per km^2. These figures are more than the country's averages for the respective category.

The same trend is seen in all parts of the IHR. Manipur has recorded the maximum density with 12,260 persons per km^2 in size class II towns. The densities of all class towns of Mizoram are the lowest in the IHR. Table 5 shows the urban densities of Manipur, Meghalaya, W.B. Hills, and Sikkim, which are higher than the other states belonging to the respective region under study.

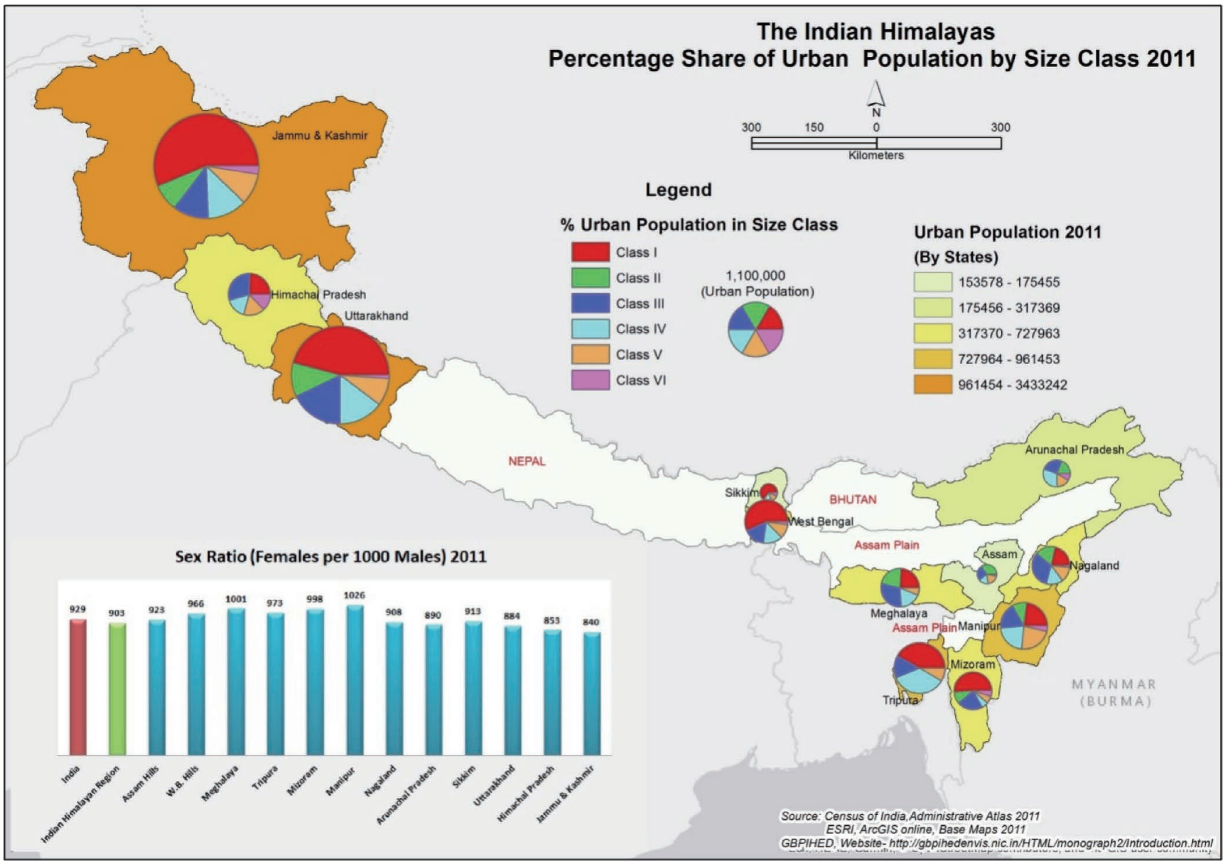

Figure 3. Percentage share of urban population by size class in the Indian Himalayan Region, 2011
Source: Census of India, 2011 and Pant et al. (2018).

Table 11. Density by size class town, 2011 (Persons/km^2)

State/Region	Size Class						
	I	II	III	IV	V	VI	Average
Jammu & Kashmir	4,064	2,970	2,618	2,127	1,510	796	2,770
Himachal Pradesh	4,798	0	3,462	2,784	1,964	1,120	2,538
Uttarakhand	7,765	6,660	1,850	2,982	1,584	708	3,381
Sikkim	5,223	0	0	2,532	4,488	1,807	4,015
Arunachal Pradesh	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
Nagaland	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
Manipur	6,997	12,260	8,629	3,675	2,477	1,443	5,913
Mizoram	1,667	1,296	419	310	275	250	660
Tripura	6,798	0	3,559	1,447	1,469	841	2,454
Meghalaya	13,825	5,309	1,632	1,088	874	3,087	2,105
Assam Hills	0	3,750	3,421	4,334	1,795	1,338	2,963
W.B. Hills	15,015	0	6,271	2,440	1,445	1,477	4,743
Indian Himalayan Region	5,114	4,667	2,173	2,136	1,603	869	2,755
India	3,688	3,320	2,116	1,530	1,306	963	3,081

Note: N.A. stands for area not available.
Source: Census of India, 2011.

XV. Sex Ratio by Size Class

When it comes to the question of the average sex ratio of all the size classes of towns in the 12 states of the IHR, the states of Manipur (1,026) and Meghalaya (1,001) have more females than males. Jammu and Kashmir recorded the lowest sex ratio (840). Table 12 reflects the average shortage of women in Himalayan towns. The average sex

Table 12. Sex ratio by size class, 2011 (Females per 1,000 males)

State/Region	Size Class						
	I	II	III	IV	V	VI	Average
Jammu & Kashmir	908	801	690	748	823	746	840
Himachal Pradesh	820	—	844	921	871	834	853
Uttarakhand	898	883	894	845	882	715	884
Sikkim	912	—	—	932	900	915	913
Arunachal Pradesh	—	951	951	837	840	884	890
Nagaland	910	918	929	931	849	701	908
Manipur	1,048	1,062	1,003	1,008	1,022	1,041	1,026
Mizoram	1,025	934	984	954	984	984	998
Tripura	999	—	995	942	947	1,016	973
Meghalaya	1,042	1,043	989	971	853	1,080	1,001
Assam Hills	—	937	916	881	957	842	923
W.B. Hills	962	—	938	985	995	1,019	966
Indian Himalayan Region	931	902	886	878	895	840	905
India	929	942	939	934	942	924	931

Source: Census of India, 2011.

ratio of class I towns is calculated to be 931, which is more than the average sex ratio of the country's class I town, which is 929. The sex ratio of class I towns varies from 820 in Himachal Pradesh to 1,042 in Meghalaya. Manipur and Mizoram have more females than males in their class I towns. The sex ratio of Tripura for this category is 999, having almost equal numbers of males and females. Except for the size class II towns, the average sex ratio of each class town is below 900.

Table 12 reveals that the womenfolk of the class towns of Jammu and Kashmir, Himachal Pradesh, Uttarakhand, Nagaland, and Arunachal Pradesh continue to have relatively low status, particularly in towns. On the contrary, in the eastern states of the Himalayas, namely Mizoram, Manipur, and Meghalaya, women comparatively enjoy better status. It is worth mentioning that, in the eastern Indian Himalayan Region, the women are entitled to all the patrimonial rights. The prominent reasons for low sex ratio in the urban society are son preference, unequal treatment given to boys and girls, female infanticide, neglect of female infants, early marriage, and death during pregnancy. Few of the Himalayan towns have higher sex ratio because of the out-migration of aware female population from villages to more developed urban places in search of employment and better educational and medical facilities.

XVI. Population Based on Urban Status

The 2011 Census categorized all towns into 14 statuses in accordance to their administrative as well as functional characteristics. There are 19 Cantonment Boards, 2 Industrial Townships, 5 Municipalities, 36 Municipal Boards, 79 Municipal Committees, 42 Municipal Councils, 6 Municipal Corporations, 1 Notified Area, 91 Nagar Panchayats, 50 Notified Towns, 1 Notified Town Area, 29 Town Committees/Town Area Committees, 1 Township, and 174 Census Towns in the IHR (Table 13). Of the total towns, 32.5% of the towns are census towns, which constitute 14.6% of the total urban population. Nagar Panchayats stood in second place, representing 17% of the total towns, followed by Municipal Committees, which represented 14.7% of the total towns. There are six Municipal Corporations, which together represent the highest percentage share of 24.2% of the total urban population.

XVII. Conclusion

The capitals of native principalities, commercial centers located in the piedmont zone, pilgrimage centers, and halting places of herders formed the initial base of urbanization in the IHR. The IHR has a long history of urbanization, going back to the time when a number of communities flourished in Champawat, Almora, Joshimath, Srinagar, Dhikuli, Devalgarh, Mordhwaj, Baijnath, Kashipur, Rudrapur, Hardwar, Dehradun, etc. However, few of these communities have managed to survive till the present time. The army stations—cantonments, hill resorts, and health resorts— sanatoria, and the educational centers created by the British rulership later con-

Table 13. Number of towns and population by status, 2011

Status	Jammu & Kashmir		Himachal Pradesh		Uttarakhand		Sikkim		Arunachal Pradesh		Nagaland		Manipur	
	No.	Persons	No.	Persons	No.	Persons	No.	Persons	No.	Persons	No.	Persons	No.	Persons
Cantonment Board/ Cantonment (C.B.)	2	50,610	7	29,918	9	125,960								
Industrial Township (I.T.S.)					2	55,528								
Municipality (M)														
Municipal Board (M.B.)					32	1,572,425								
Municipal Committee (M.C.)	76	863,785									3	257,786		
Municipal Council (M.Cl.)	6	464,053	25	382,605			1	12,190					9	454,513
Municipal Corporation/ Corporation (M. Corp.)	2	1,782,617	1	169,578	1	574,840	1	100,286						
Notified Area (N.A.)														
Nagar Panchayat (N.P.)			23	88,392	30	231,651	5	33,984					18	179,357
Notified Town (N.T.)									27	317,369				
Notified Town Area (N.T.A.)							1	1,235						
Town Committee/Town Area Committee (T.C.)											16	247,654		
Township (T.S.)													1	16,847
Census Town (C.T.)	36	272,177	3	18,059	41	488,934	1	5,883			7	65,526	23	183,437
Total	122	3,433,242	59	688,552	115	3,049,338	9	153,578	27	317,369	26	570,966	51	834,154

(Table 13 Contd.)

Status	Mizoram		Tripura		Meghalaya		Assam Hills		W.B. Hills		Indian Himalayan Region			
	No.	Persons	No.	Persons	No.	Persons	No.	Persons	No.	Persons	No.	Persons	% of Total Towns	% of Total Population
Cantonment Board/ Cantonment (C.B.)					1	11,930					19	218,418	3.5	1.8
Industrial Township (I.T.S.)											2	55,528	0.4	0.5
Municipality(M)					2	103,288.00			3	210,654	5	313,942	0.9	2.6
Municipal Board (M.B.)					4	200,552					36	1,772,977	6.7	14.7
Municipal Committee (M.C.)											79	1,121,571	14.7	9.3
Municipal Council (M.Cl.)			1	400,004							42	1,713,365	7.8	14.2
Municipal Corporation/ Corporation (M. Corp.)									1	294,546	6	2,921,867	1.1	24.2
Notified Area (N.A.)									1	11,513	1	11,513	0.2	0.1
Nagar Panchayat (N.P.)			15	270,898							91	804,282	17.0	6.7
Notified Town (N.T.)	23	571,771									50	889,140	9.3	7.4
Notified Town Area (N.T.A.)											1	1,235	0.2	0.0
Town Committee/Town Area Committee (T.C.)					3	60,160	10	172,947			29	480,761	5.4	4.0
Township (T.S.)											1	16,847	0.2	0.1
Census Town (C.T.)			26	290,551	12	219,520	1	2,508	24	211,250	174	1,757,845	32.5	14.6
Total	23	571,771	42	961,453	22	595,450	11	175,455	29	727,963	536	12,079,291	100.0	100.0

Source: Census of India, 2011.

tributed toward the growth of urbanization. British rulership established new towns for the supply of commodities nearby the hill towns or in the foothill contact zone.

Urbanization in the IHR during the last century was associated with a particular aspect each decade: 1901–11, famine and plague; 1911–21, first word war and influenza epidemic; 1921–31, post-world war and protest against British rule; 1931–41, second World war and movement for Independence; 1941–51, quit India movement and partition; 1951–61, planned development; 1961–71, emergence of new urbanization in backward areas and concentrated urban development near big towns; 1971–81, decentralized urban growth; 1981–91, decelerated rural urban migration and declining rate of natural increase; 1991–2001, fast urbanization because of the heavy migration from a mountainous region to an almost plain region; and 2001–11, number of big villages recognized as census towns.

The nature of Himalayan urbanization is subsistence, where people from rural areas are attracted to towns, not for the urban facilities, but for employment and education. They might be living in degrading conditions, but remain in towns for a job. This negatively affects the quality of urban life in the IHR.

The Himalayan urbanization has a poly-metropolitan apex, accounting for 42.8% of the total urban population. These are as many as 18 towns in the IHR claiming size class I status. While the big towns of the IHR have an exploding population, the small towns are stagnating. As per the 2011 Census, 18 (3.33%) class size I towns share 42.8% of the total urban population and 183 (34%) towns of class size V share a meager 11.1% of the total urban population. While few of the towns have large populations, and more towns that have small populations in the IHR.

The Himalayan towns are growing more on the basis of tertiary and quaternary sectors, rather than on the basis of secondary sector. However, the growth of district and tehsil (sub-division) headquarters in the recent decades has contributed toward an infrastructural development of large scale urbanization based on a high degree of industrialization in general, and the emergence of district and tehsil headquarters in the plain area in particular. The multi- functionality of a large number of towns in the IHR is an indicator of the form of decentralized urban development taking place in the IHR. An approximate 900% growth has been registered by towns from 1901 to 2011 in the respective region.

The average urban density of the IHR is 2,755 persons per km^2, which is lower than the country's average of 3,081 persons per km^2. The study reveals that the womenfolk of the class towns of Jammu and Kashmir, Himachal Pradesh, Uttarakhand, Nagaland, and Arunachal Pradesh continue to have relatively low status. On the contrary, in the towns of Mizoram, Manipur, and Meghalaya, the womenfolk enjoy comparatively better status. It is worth mentioning that, in the Eastern IHR, women are entitled to all the patrimonial rights.

The primary reasons why urban societies have low sex ratio are son preference, unequal treatment given to boys and girls, female infanticide, neglect of female infants, early marriage, and death during pregnancy. Some of the Himalayan towns have shown high sex ratio because of the out-migration of female population from villages to towns in equal numbers to men in search of employment and better educational facilities.

The eastern states of the IHR are more urbanized than the western states. An estimate of 54.8% of the total urban population of the IHR resides in three western states, namely Jammu and Kashmir, Himachal Pradesh, and Uttarakhand. Mizoram stands first in the list of urbanization point, where more than half (52.6%) of the population is urban. Eight districts of the IHR had urban populations, which constituted more than 50% of their respective total populations. These are Srinagar, Aizawl, Imphal West, Kolasib, Dehradun, Papum Pare, Dimapur, and Jammu. The districts located in the adjunct with mountains and plains or purely plains are more urbanized than the districts located in the mountains. However, Srinagar district of Jammu and Kashmir is an exception, with 98.6% of its population being urban. This is because, besides the town, few villages are included within the district. Two districts of the IHR, Lahul and Spiti and Kinnaur districts of Himachal Pradesh, have no urban population as per the 2011 Census. Towns in the eastern Himalayan region have registered record growth right from the inception of towns in the respective states.

Of the total towns, 32.5% of the towns are census towns, which constitute 14.6% of the total urban population. Nagar Panchayats stood in second place, constituting 17% of the total towns, followed by Municipal Committees, which constitute 14.7% of the total towns. Many towns are notified towns because of their religious or other importance. Big cities are growing fast and six of them have attained the status of Municipal Corporations. The concentration of population in class I cities in the IHR is more than that in the same class cities at the national level.

To summarize, towns in the IHR are facing a number of environmental problems, for they have already exceeded their carrying capacity. The adjoining areas of any town

are overcrowded because of immigrants. They relentlessly exploit the available services and facilities of the town, which are meant only for its residents. As a result, the supply of essential services is badly affected and the local bodies face a financial crunch. The heavy loads of haphazard construction activities and water shortage because of the encroachment of the bioregion of towns have come to create severe health hazards and poor conditions pertaining to sanitation, sewage, congestion, and safety. Similarly, social unrest, religious turmoil, crimes, political instability, and other associated problems may negatively affect the Himalayan towns if timely action is not taken. To overcome these problems, feasible and sustainable urban development plans should be instituted without any further delay by keeping the local geographical environment and the specific nature of the towns in mind.

Notes

1. https://censusindia.gov.in
2. Number of females per 1,000 males.

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