Research Paper

Levels of Urbanization in Western Himalaya Region

Dr. Gaurav Kalotra	Assistant Professor , Department of Geography, CAS-II, Panjab University, Chandigarh.
Satish Kumar	Junior Research Fellow (Ph.D), Department of Geography, CAS-II , Panjab University, Chandigarh

ABSTRACT   *Western Himalaya Region comprises of the states of Jammu and Kashmir, Himachal Pradesh and Uttarakhand. This paper tries to describe the levels of urbanization in Western Himalaya Region on the basis of district and town level data of Census of India, 2011. It focuses on the urban landscape as it highlights the spatial structure of urban settlements and the irregular spread of towns and cities in the region. The urbanization of Western Himalayas has been influenced by its topography, international border and needs for efficient and effective local administration which helps in the development of the hill stations, cantonment towns and administrative headquarters towns respectively. Further, numbers of other towns have emerged due to modernization of means of transport and industrialization. The paper analyses the levels of urbanization and the spatial pattern of towns with their specific location and size. The three states comprising Western Himalayas present sharp contrasts in terms of levels of urbanization. The result shows that the Jammu & Kashmir is the most urbanized state (47.9 per cent) while Himachal Pradesh is the least urbanized state in the region. It has been observed that most of the urban population in the region is concentrated in valleys which provide better living conditions.*

Introduction

Urbanization has advanced at a rapid pace over the last two centuries in India. In 1800, only about 2 per cent of the human population lived in urban areas. By 1900, about 15 per cent were living in cities (Batra, 2009). India has experienced rapid urban growth in the 20th century. The total urban population increased tenfold between 1901 and 2001. The share of urban population to the total population increased from less than 11 per cent to over 28 per cent in the same period. Similarly the total number of urban agglomerations increased from 1827 to 7935 in 1901 to 2011. The total urban population in the country as per Census 2011 is more than 377 million constituting 31.16 per cent of the total population.

The Western Himalayan region is an overwhelmingly rural part of India having only 1.9 per cent urban population as per 2011 census. The census 1901 showed that only 6.4 per cent of the region's population was urban (Census, 2001). Indeed at that time there was little incentive for the existing towns to expand or for new ones to emerge. Natural growth was practically the only determinant of urban development. Stagnant urbanization was associated with the predominantly subsistence nature of agricultural economy. Industry, commerce and general services which provide the major stimuli for urban change had not made a breakthrough. Modern transport was yet in the initial stages of development. The main justification for the existence of the towns was their administrative functions, local sociological factors and historical regions. The district headquarters held some significance as towns.

Urbanization has been a popular field of research among Indian scholars. There were some studies conducted on western Himalayan region such as Krishan and Verma (1980), Sharma (1981, 1992 & 2002), Siddique (1985), Surya Kant (1995), Dave (1999), Bhardwaj (1999), and Singh and Singh (1995). Sharma's contributions to urban studies in this region were outstanding.

On the basis of literature it can be stated that the in depth research on the levels of urbanization is very much lacking in Western Himalayas due to lack of suitable research methodologies. Accepting urbanization as a conscious and conditioned adjustment of societies to their changing environment, the paper explores the spatial pattern of urban population and location of urban centres in the Western Himalaya region.

The region has international border with Afghanistan and China in the north, Tibet and Nepal in the east and Pakistan in the west. The States of Punjab, Haryana and Uttar Pradesh form its southern border. It lies between the latitudes 27º59' to 36º22' N and longitudes 72º42' to 81º03' E. The region has a total geographical area of 252, 460 sq. km which excluded an area of 78,932 sq km under illegal occupation of Pakistan and China. Major parts of the region represent high and rugged mountainous terrain.

Objective

The main objective of the present study is to analyse the levels of urbanization and the spatial pattern of towns with their specific location and size.

Data Source and Methodology

The present study is entirely based on secondary data. The chief source of data for this study is primary census abstract of Jammu & Kashmir, Himachal Pradesh and Uttarakhand of 2011. Methodology is central part of any research work which helps in scientific description explanation of reality. The methodology of this study is in consonance with the proposed objective. District is taken as unit of study. The level of urbanization may be measured in a number of ways such as the percentage of urban population to total population, the rural population / rural area served by an urban centre and the distance that rural people have to travel to the nearest urban centres. The three measures of the level of urbanization suggested above have individually reveals different aspects of urbanization. Further, an attempt is made to calculate composite index with the help of Z-score to understand the overall level of urbanization and Ginni concentration ratio to identify the inequality in the distribution of urban population to total population. The results obtained from processing of data are presented in the form of tables and choropleth maps.

Study Area

Source: Administrative Atlas of J&K, H.P. and Uttarakhand released by Census of India, 2011
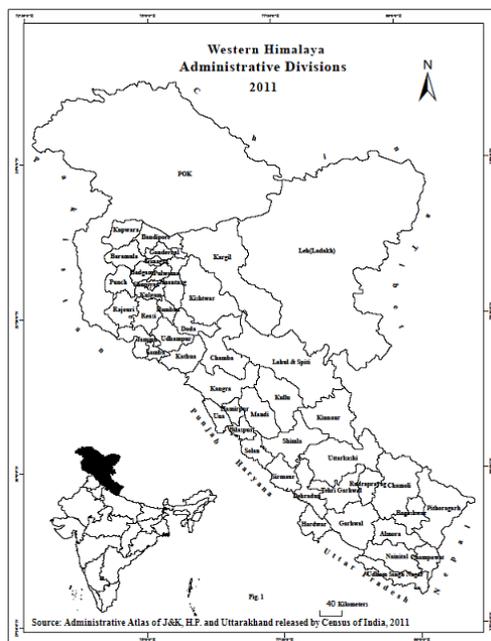
Generalities

The fourty seven hill districts in the western Himalaya region together account for only 1.90 per cent of urban population of India. In the region the highest proportion is concentrated in seven districts viz., Srinagar (17.0 per cent), Dehradun (13.1 per cent), Jammu (10.7 per cent), Hardwar (9.7 per cent), Udham Singh Nagar (8.2 per cent), Nainital (5.2 per cent) and Shimla (2.8 per cent). Among the three states comprising western Himalaya, J & K has the highest proportion (47.9 per cent) of the total urban population of the region, followed by Uttarakhand (42.5 per cent) and Himachal Pradesh (9.6 per cent) (Table-1).

Table-1 Percentage of Urban Population and No. of Towns in Western Himalaya, 2011				
Urban Population in Per cent				
States	Total	Male	Female	No. of Towns
J & K	47.9	28.1	26.6	126
H.P.	9.6	10.7	9.4	59
U.K.	42.5	31.5	28.9	103
Region	100.0	23.4	21.6	288

Source: Computed from Primary Census Abstract of J&K, H.P. and U.K., 2011.

Spatial Pattern of Urban Population

The spatial distribution of urban population in Western Himalaya is shown in fig. 2. The result shows that the Srinagar district has highest proportion of urban population (98.6 per cent) in the region. It is adjoined by districts having moderate and low values. The high proportion of urban population are found in Dehradun (55.5 per cent), Leh Ladakh (34. 2 per cent), Nainital (38.9 per cent), Hardwar (36.7 per cent) and Udham Singh Nagar (35.6 per cent) whereas low proportion are found in district Bageshwar (3.5 per cent), Rudraprayag (4.1 per cent), Ramban (4.2 per cent) followed by Shupiyan (6.1 per cent). The low level of urbanization in the region is reflected in a large number of districts. The districts in Himachal Pradesh, i.e., Lahul & Spiti and Kinnaur, are entirely rural. Table 1 also shows that the highest numbers of towns (126) are found in Jammu & Kashmir followed by Uttarakhand (103) and Himachal Pradesh (59).

Size Class Distribution of Towns and Population

Table 2 shows the number of towns according to population size classes, and the per cent distribution of urban population in different size class categories of towns in different states as well as the region of Western Himalaya. The region has 13 class I towns and together these contain 53 .9 per cent of the urban population of the region. The state Jammu & Kashmir particularly where the six Class I towns account for 75.6 per cent and three Class II towns only 1.5 per cent of the urban population of the state. In Himachal Pradesh the only Class I town accounts for 23.1 per cent of the state's urban population, there are two Class II towns which occupy 14.7 per cent urban population, and twenty eight Class VI towns contain 11.4 per cent of urban popu

lation of the state. The state Uttarakhand has six Class I towns which accounts 63.1 per cent urban population and 0.8 per cent urban population lives in Class VI towns which is very low proportion of urban population. The region has seventy Class IV towns but they occupy only 11.2 per cent urban population.

States / SizeT	I	II	III	IV	V	VI	Total
Table-2 Number of Towns and Per cent Urban Population according to Size Class in Western Himalaya, 2011							
J & K	6 (75.6)	3 (1.5)	15 (7.1)	31 (8.1)	44 (5.9)	27 (1.8)	126 (100)
H.P.	1 (23.1)	2 (14.7)	5 (19.5)	7 (15.6)	14 (15.7)	28 (11.4)	59 (100)
Uttarakhand	6 (63.1)	7 (10.1)	15 (9.8)	32 (9.9)	30 (6.3)	13 (0.8)	103 (100)
Region	13 (53.9)	12 (8.8)	35 (12.2)	70 (11.2)	88 (9.3)	68 (4.6)	288 (100)

Source: Computed from Primary Census Abstract of J&K, H.P. and U.K., 2011.

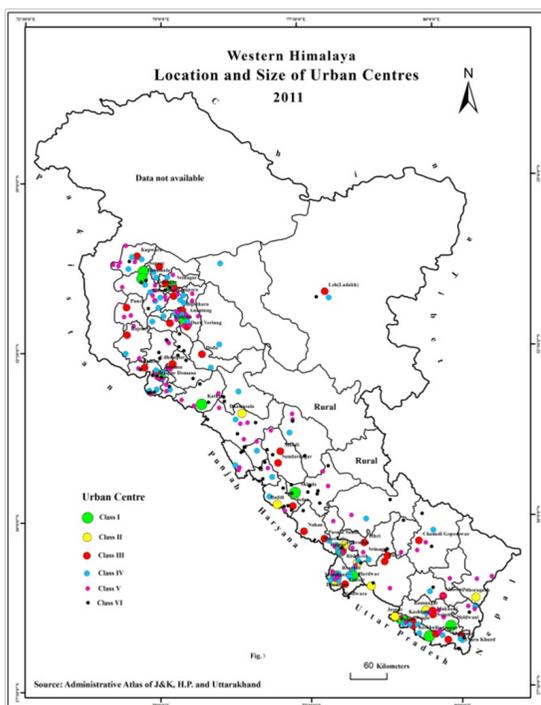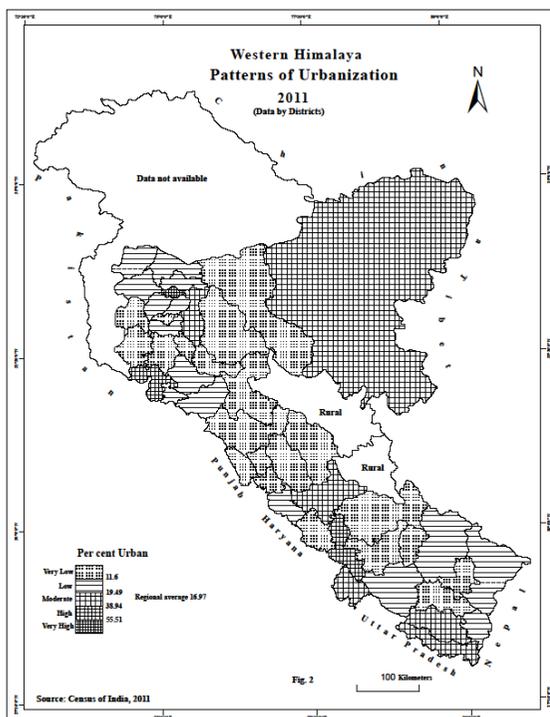Figures in parenthesis refer to percentage of urban population.

Class I: Greater than 1, 00,000 population Class II: 50,000--1, 00,000 population

Class III: 20,000---50,000 population Class IV: 10,000--- 20,000 population

Class V: 5,000---10,000 population Class VI: less than 5000 population

It has been observed (Fig. 2 & 3) that most of the urban population in Western Himalaya is concentrated in valleys which provide better living conditions and good opportunities for jobs. Fig. 3 shows that the spatial pattern and location of towns by their size in region. This depict that each valley has a large number of scattered towns. Most of these urban centres continued to perform predominantly rural functions besides providing market and other facilities. Infect, many of these towns emerged as administrative headquarter religious centres and tourist centres.

It has been found that many of the towns were aligned to traditional trade routes which passed through valleys. These towns had a linear spread along the route. It may be mentioned that some important settlements also emerged in the foot hill region along trade routes. Such towns provided the gateway or entry point into the mountains.

the study include the urban component along with the rural, a highly urbanized area with a metropolitan city, as well as a less urbanized area with a small town, may both have a large population served by the respective centres. On the other hand, the rural population served by a town would reflect the level of urbanization. Further, the rural population served by a town may also be interpreted as the minimum population required supporting a town. This is known as the population threshold of a town and the population threshold of a town will depend on the level of urbanization, high level of urbanization resulting in lower population thresholds and vice versa. In 2011, a town or city with a population of 5000 and more served on an average 90.9 thousands rural people (fig. 4). Among the districts, Srinagar had the lowest population threshold of 2.5 thousands, closely followed by district Kargil (12.4 thousands) and Leh Ladakh (29.3 thousands). The middle part of the J & K and Himachal Pradesh of the region reflected a relatively higher level of urbanization.

Table- 3: Levels of Urbanization in Western Himalaya, 2011

Districts	Urban Population in Per cent	Rural Population Served by an Urban Centre (in 000)	Maximum Distance (in km) to Nearest Urban Centre	Composite Index of Urbanization
Kupwara	1.5	76.6	16.6	-0.9
Badgam	1.4	65.6	11.9	-1.2
Leh(Ladakh)	0.6	29.3	171.2	3.2
Kargil	0.2	12.4	129.7	1.4
Punch	0.5	146	28.0	0.4
Rajouri	0.7	147.5	27.3	0.5
Kathua	1.3	75.2	22.4	-0.7
Baramula	2.5	91.7	16.9	-0.3
Bandipore	0.9	108.9	30.9	0.0
Srinagar	17.0	2.5	8.5	1.9
Ganderbal	0.7	83.5	23.0	-0.7
Pulwama	1.1	95.9	13.8	-0.7
Shupiyan	0.2	249.8	22.4	1.9
Anantnag	3.9	61.2	14.9	-0.5
Kulgam	1.1	49.1	13.8	-1.5
Doda	0.5	188.6	34.2	1.3
Ramban	0.2	90.6	19.0	-0.9
Kishtwar	0.2	215.8	96.0	3.7
Udhampur	1.5	63.8	20.7	-0.9
Reasi	0.4	57.5	23.1	-1.3
Jammu	10.7	42.5	11.9	0.9
Samba	0.7	44.2	12.2	-1.7
Chamba	0.5	96.6	38.6	-0.1
Kangra	1.2	142.3	25.6	0.5
Lahul&Spiti	0.0	0.0	0.0	0.0
Kullu	0.6	79.3	35.5	-0.4
Mandi	0.9	187.4	30.1	1.3

Rural Population Served by Urban Centres

Urban centres plays very important role in an urban system of any area. However, the number of towns has to be related to either the population or the area of the territorial units. The study has used the concept of rural population served by each town. Rural, in this context, is defined as the population living in the places other than the towns and cities. The reason behind this if

Hamirpur	0.4	105.8	17.9	-0.6
Una	0.6	95.2	18.7	-0.7
Bilaspur	0.4	89.2	18.3	-0.9
Solan	1.4	59.7	16.7	-1.1
Sirmaur	0.8	157.5	32.8	0.8
Shimla	2.8	55.6	23.1	-0.6
Kinnaur	0.0	0.0	0.0	0.0
Uttarkashi	0.3	101.9	55.3	0.5
Chamoli	0.8	55.3	39.2	-0.6
Rudraprayag	0.1	116.1	33.7	0.0
Tehri Garhwal	1.0	78.3	24.4	-0.7
Dehradun	13.1	37.7	13.3	1.6
Garhwal	1.6	63.8	26.0	-0.7
Pithoragarh	1.0	137.9	52.0	1.2
Bageshwar	0.1	250.8	50.6	2.8
Almora	0.9	140.0	30.0	0.5
Champawat	0.5	55.3	22.5	-1.3
Nainital	5.2	58.2	22.0	0.0
U S Nagar	8.2	55.9	12.4	0.5
Hardwar	9.7	52.1	10.8	0.8
Region	2.1	90.9	30.2	00.0

Source: Computed from Primary Census Abstract of J&K, H.P. and U.K., 2011.

Fig. 5 determines the maximum distance that rural folk have to travel to reach the nearest town. Distance to the nearest town and the area served by a town is indeed two sides of the same coin and measure the same phenomenon (Ramachandran, 1998, p.126). The level of urbanization is inversely proportional to the area served by a town. Rural population go to their nearest town not for a variety of goods but also for education, medical facilities and entertainment. So keeping in mind all these things the distance method has been used to measure the level of urbanization. In order to find the maximum distance to the nearest town the present study assumes that the hinterland is hexagonal in shape. The assumption of a hexagonal hinterland has advantages over other theoretical alternatives such as squares and circles; it is provide a better approximation of the real world situation. In 2011, the mean distance between 30.2 km, and the maximum distance to the nearest town is 171.2 km in Leh (Ladakh) whereas the lowest distance is 8.5 km in Srinagar district followed by Hardwar 10.8 km and Badgam 11.9 km. The highest distances are found in the eastern part of the region which shows lower levels of urbanization. The greatest distance to the nearest town occur in hilly or mountainous areas.
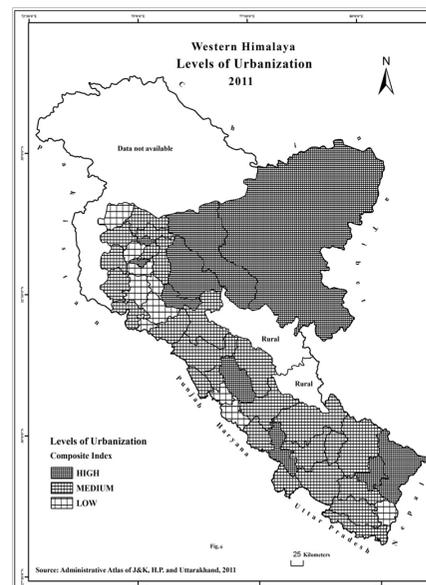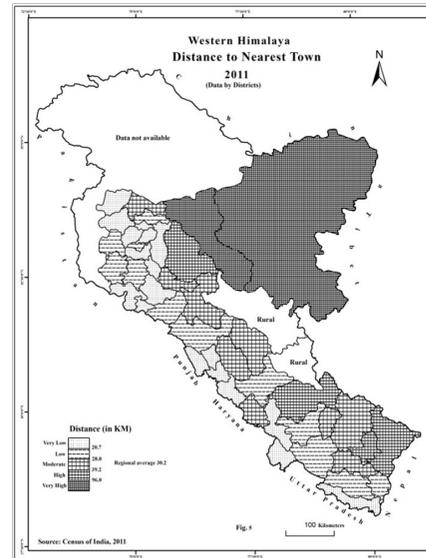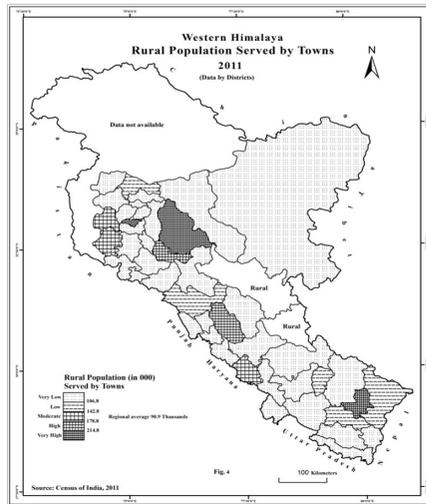

Fig. 6 depicts the overall levels of urbanization which are computed with the help of composite index. The three criteria of urbanization discussed earlier reveal widely different micro-spatial patterns. Districts ranking high on one criterion do not

necessarily rank high on the others. For example, Srinagar which has the highest percentage of urban population occupies only a lower rank on the other two criteria. The standard scores on all the three criteria are added together to give a composite index of urbanization. The high score is found in the districts of Srinagar, Leh (Ladakh), Shupiyan, Kishtwar, Doda, Mandi, Dehradun, Hardwar and almora which shows the high level of urbanization all these districts have positive value on the composite index whereas the low level of urbanization are found in districts of Champawat, Kupwara, Reasi, Udhampur, Samba, Hamirpur and Bilaspur have reflected negative score. Districts Kargil, Kishtwar and Doda lies in the category of high levels of urbanization due to the high values in two category.

Conclusion

The three states comprising Western Himalaya present sharp contrasts in terms of levels of urbanization. The result shows that the Srinagar district has highest proportion of urban population in the region. It is adjoined by districts having moderate and low values. Their are many reasons for high levels of urbanization such as it is situated in Kashmir Valley and lies on the banks of the Jhelum River, a tributary of the Indus, which are well known for Saffron cultivation provide accelerating factor for growth of population and Srinagar the largest city in India without a Hindu majority situated in the middle part of the valley which reflect the high levels of urban population. The city is also known for its historical viewpoints. Ashoka introduced Buddhism to the Kashmir valley, and the adjoining regions around the city became a centre of high population. The high proportion of urban population are found in Dehradun, Leh Ladakh, Nainital, Hardwar and Udham Singh Nagar whereas low proportion are found in district Bageshwar, Rudraprayag, Ramban followed by Shupiyan. Except of the Leh district, the high values are associated with the location of traditional cultural, religious and administrative status of regional capital towns. Leh is the capital town of the Himalayan district of Ladakh which occupy moderate per cent of urban population of the region. The study further reveals that the region has 0.44 Ginni value which shows a relatively lower concentration of urban population in relation to the total population.

REFERENCE   Bhardwaj, P.D. 1999. Literacy in Himachal Pradesh. Population Geography, 21 (1&2), 31 – 42. | Census of India, 2001. General Population Tables: India, States and Union Territories. Part-I. | Dave, B. 1999. Pilgrimage and Urban Development of Hill Districts of Uttaranchal. Population Geography, 21 (1&2), 51 – 58. | Kant, Surya. 1995. Urbanization in Himachal Pradesh during the Present Century. Population Geography, 17 (1&2), 49 – 64. | Krishan, G. & Verma, N.R. 1980. Site analysis of Hill Towns. Transaction of the Institute of Indian Geographers, 2 (1), 101 – 109. | Mahmood, A. 2012. Statistical Methods in Geographical Studies. New Delhi: Rajesh Publications. | Ramachandran, R. 1998. Urbanization and Urban Systems in India. New Delhi: Oxford University Press. | Sharma, K.D. 1981. Endogenous and Exogenous Urbanisation: A Case Study of Uttarakhand (U.P. Himalaya). Transaction of the Institute of Indian Geographers, 3 (2), 159 – 174. | Sharma, K.D. 1992. Patterns and Processes of Urbanisation in Himalayan State: A Case Study of Himachal Pradesh (India). Transaction of the Institute of Indian Geographers, 14 (1), 1 – 12. | Sharma, K.D. 2002. Distribution of Urban Population and Its Socio – Economic Attributes in Western Himalaya: 2001. Population Geography, 24 (1&2), 81 – 88. | Siddique, M. 1985. Urbanization in Jammu & Kashmir: A Regional Analysis. In M. Husain et.al (ed.), Geography of Jammu & Kashmir (pp.215 - 238). New Delhi: Ariana Publishing Company. | Singh, S.K. & Singh, S. 1995. Levels of Urbanization in U.P. Himalaya. In S.B. Singh (ed.), Emerging Frontiers of Urban Settlement Geography (pp.57-62), New Delhi: M.D. Publications Pvt. Ltd. |