# "POPULATION'S CHARACTERISTICS IN KUMAUN REGION OF UTTARAKHAND"

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ABSTRACT :

Total population of Uttarakhand state is 10086292, which share 0.83% of total population of India. On the basis of cultural variations the Uttarakhand state it is divided into two regions: Garhwal & Kumaun. In the Kumaun region covers 7457 village, 41 blocks, 38 sub-districts within 6 districts in. Out of total population of Uttarakhand 41.92% population lived in Kumaun region. There is a vast variation in the distribution, density, growth, sex ratio, literacy rate and urbanization patterns of population in the different physiographic zones from north to south. Keeping in view the demographical changes during 2011 census in the Kumaun region has been selected for present study.
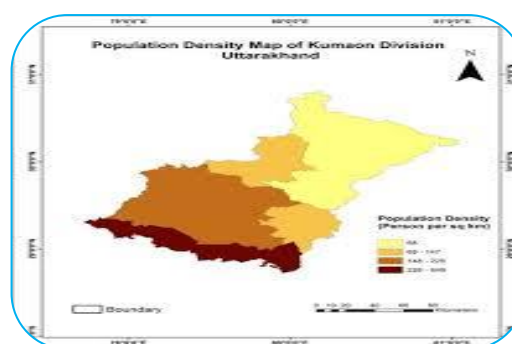
**KEYWORDS** *: Population, Physiographic Zone, Kumaun Region.*

INTRODUCTION

Broadly, demography studies the quantitative and qualitative aspects of population of any region. In other words demography is a statistical and mathematical study of size, composition, spatial distribution of human population and the changes over time in these aspects through operation of the five processes fertility, mortality, marriage, migration and social mobility (Donald, 1961).

The Kumaun Himalayan region is one of the most fascinating physical division of the Uttarakhand. Like Himalayan mountain region Kumaun region is also divided into five physiographic divisions i.e., Trans Himalaya, Higher Himalaya, Lesser Himalaya, Outer Himalaya, and Bhabar-Tarai. Most of the population is lived in Bhabar-Tarai and Lesser Himalaya. Out of the physical factors, uneven distribution of population, growth and migration are the important demographic factors of cultural aspects which play significant role in the Kumaun Himalaya. Vertical and horizontal distributions of demographic components are also significant but there is lack of systematic organization of statistics on the demographic aspects in different physiographic zones. Therefore, present study may be helpful to find the practical solution of demographic problems in the Kumaun Himalaya.

Study Area

Kumaun Himalaya Region lying the latitudes 28^0 44' to 30^0 49' N and longitude 78^0 4' to $81^0$1' E is situated at the disjunction of Nepal, Tibet and India in the state of Uttarakhand (Fig. 1). A natural water-divide separate it from the Tibet, the Kali River defines its border with Nepal, high transverse

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mountain range separate it from Chamoli and Pauri district of Garhwal region, and the southern limit of the Tarai belt demarcates its southern boundery (Jalal, 1988). It has a distinct geographical entity of great strategic significance. It covers 21158.08 km² areas within a height group between 204m and 7436m above msl. The Kumaun region is comprises five districts- Almora, Pithoragarh, Bageswar, Champawat, Nainital and Udhamsingh Nagar which divided into 38 Tahsils, 41 blocks and 7457 villages (Fig. 2). According to 2011 census the total population of it is 4228998 with 200/km² density.

Fig. 1

Fig. 2
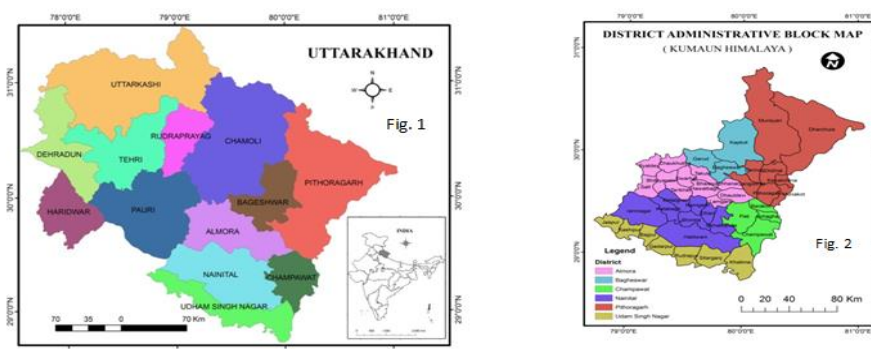
Objective

The basic aim of the present study is to analysis the demographic characteristics and its distributional pattern in the different physiographic zones of the Kumaun Himalaya of Uttarakhand.

Methodology

Present study is based on secondary sources of census data (2011). The blocks have been taken as a basic unit of the study. Total 41 blocks in Kumaun region analysed with coding system on computer environment. Results and data have been represented with maps, diagrams and tables using computer cartographical techniques. Following demographic parameters are analyzed in the present study area.
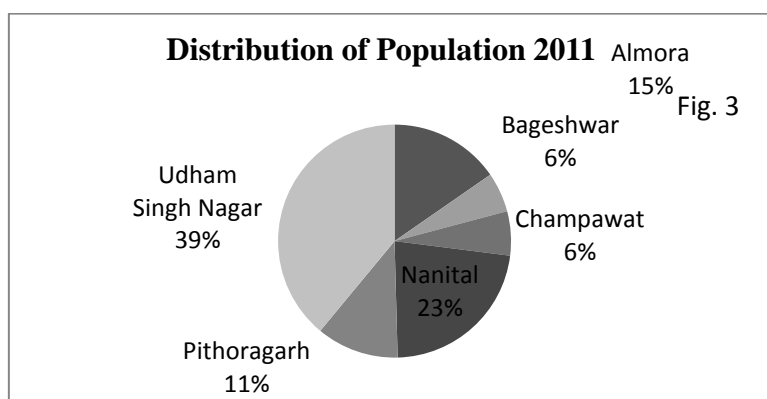
Distribution and Size of population

According to 2011 census the total population of Kumaun region were 4228998 which divided into 6 district of 38 Tahsil, 41 developmental blocks and 7457 villages. It shares about 0.83% of total population of India. Out of the total population 50.56% are male and 49.44% female. District wise distribution and composition of population is shown in Table 1 and Fig. 3. The maximum populated district is Udham Singh Nagar which covers 34.65% population of Kumaun region followed by Nainital district. The minimum populated districts are Bageswar (5.52%) and Champawat (6.14%). Most of the population concentration found in the Bhabar-Tarai districts i.e. Udham Singh Nagar, and Nainital. Beside this minimum concentration found in Higher and Lesser Himalayan districts i.e. Bageswar, Champawat, Pithoragarh etc (Fig. 4).

Table 1- District wise Composition of Kumaun Himalaya

Block	Population %	Density	Growth	Sex Ratio	Literacy %	Rural %	Urban%	Occupation %
Almora	15.35	211	-1.51	1136	80.45	90.40	9.60	47.77
Bageshwar	5.52	102	5.57	1093	80.01	96.11	3.89	47.90
Champawat	6.14	146	15.63	980	79.83	85.23	14.77	38.35
Nainital	22.57	229	25.13	934	83.88	61.06	38.94	39.41
Pithoragarh	11.43	67	4.58	1020	82.25	85.60	14.40	44.78
Udham Singh Nagar	38.99	625	33.45	920	73.10	64.42	35.58	35.87
Kumaun Region	100	200	18.61	978	78.52	73.09	26.91	40.33

Source- Census of India 2011

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Distribution of Population 2011

Almora 15%

Bageshwar 6%

Champawat 6%

Nanital 23%

Pithoragarh 11%

Udham Singh Nagar 39%

Fig. 3

The developmental block wise distribution of population is also analysed in Table2 and shown in Fig. 4. It reveals that the most populated block is Haldwani in which about 10.6% populations lived of the Kumaun region followed by Rudrapur and Kashipur of Tarai district. Beside this minimum (0.63%) populated block is Barakot of Champawat district followed by Bhikiyasain (Almora) and Dhari (Nainital).

Table 2- Block wise Demographical Characteristics of Kumaun Himalaya

Block	Population %	Density	Growth	Sex Ratio	Literacy %	Rural %	Urban%	Occupation %
Bhikiyasain	0.78	117	-13.32	1280	78.98	100.00	0.00	52.56
Dhaula Devi	1.53	196	3.00	1137	73.43	100.00	0.00	50.11
Lamgarha	1.14	273	1.60	1076	76.88	100.00	0.00	53.43
Hawalbagh	2.56	317	8.52	1016	87.68	62.39	37.61	36.15
Bhaisiya Chhana	0.87	195	0.76	1098	76.87	100.00	0.00	45.63
Takula	1.47	232	1.55	1149	80.10	100.00	0.00	44.78
Syaldey	1.06	147	-9.18	1327	75.04	100.00	0.00	63.50
Sult	1.33	173	-8.94	1246	75.71	100.00	0.00	50.17
Chaukhutiya	1.09	140	-6.15	1297	80.72	100.00	0.00	53.75
Dwarahat	1.49	243	-2.82	1219	80.28	95.63	4.37	48.73
Tarikhet	2.04	310	-2.68	996	86.42	78.08	21.92	45.08
Kapkot	1.90	58	4.04	1087	75.98	100.00	0.00	51.00
Garud	1.62	143	8.48	1157	81.21	100.00	0.00	45.44
Bageshwar	2.00	201	4.75	1048	82.79	89.27	10.73	46.96
Champawat	2.98	166	19.13	947	79.96	75.86	24.14	36.32
Lohaghat	1.26	321	14.35	1031	80.63	85.12	14.88	40.32
Barakot	0.63	137	8.78	1029	76.07	100.00	0.00	41.89
Pati	1.27	82	12.66	988	80.61	100.00	0.00	39.39
Haldwani	10.55	341	35.97	916	84.46	46.25	53.75	35.70
Kotabagh	1.31	173	10.48	965	83.27	86.21	13.79	46.29
Okhal kanda	1.14	119	11.72	979	76.95	100.00	0.00	54.77
Dhari	0.81	178	16.08	933	84.13	100.00	0.00	58.97
Ramgarh	0.94	171	7.23	950	86.13	100.00	0.00	51.51
Betalghat	0.98	131	3.43	1023	83.35	100.00	0.00	49.77
Ramnagar	4.04	159	29.32	943	79.31	67.97	32.03	35.34
Bhimtal	2.80	373	15.42	918	90.44	41.22	58.78	36.41
Munsiari	1.10	17	-0.05	1033	75.25	100.00	0.00	50.49
Munakot	1.10	243	1.14	1029	82.94	100.00	0.00	51.26
Kanali Chhina	0.98	307	-7.77	1068	82.39	100.00	0.00	46.37
Dharchula	1.55	23	7.53	976	79.10	89.28	10.72	53.25
Berinag	1.20	188	0.63	1073	81.86	100.00	0.00	40.31
Gangolihat	1.70	225	2.21	1090	77.84	100.00	0.00	46.63
Pithoragarh	2.84	361	17.68	972	88.77	53.39	46.61	35.98

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Didihat	0.95	105	-0.96	982	83.12	83.72	16.28	43.85
Gadarpur	4.13	561	29.37	925	71.26	82.47	17.53	38.85
Khatima	5.37	340	23.88	970	76.39	79.47	20.53	43.52
Sitarganj	5.07	471	22.48	936	71.95	83.08	16.92	37.10
Rudrapur	9.24	992	49.90	900	72.24	41.11	58.89	33.37
Jaspur	4.49	691	25.87	913	73.27	69.54	30.46	35.83
Kashipur	6.58	983	40.00	902	77.42	50.07	49.93	32.54
Bajpur	4.10	683	31.77	916	66.71	73.30	26.70	32.34
Kumaun Region	100	200	18.61	978	78.52	73.09	26.91	40.33

Source- Census of India 2011
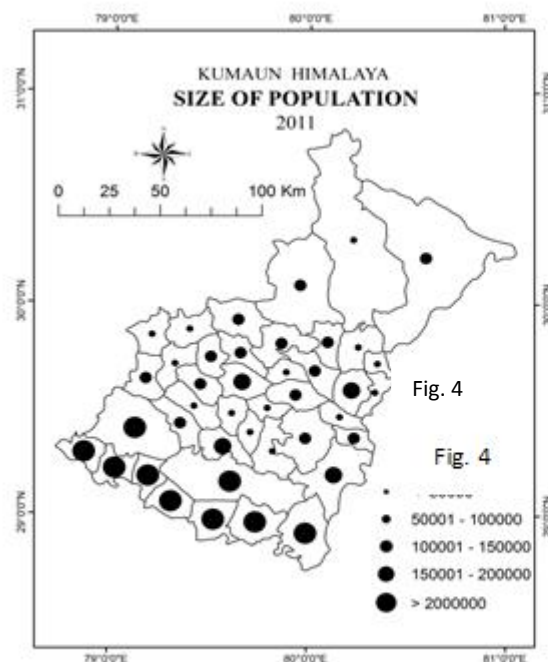
Fig. 4

Fig. 4

Fig. 5

Fig. 5

Fig. 4 Size of Block (Population) and   **Fig. 5 Block wise Density of Population.**

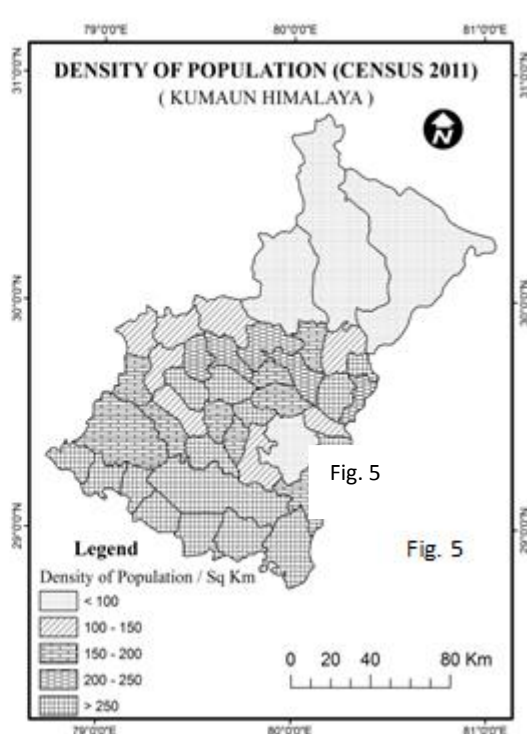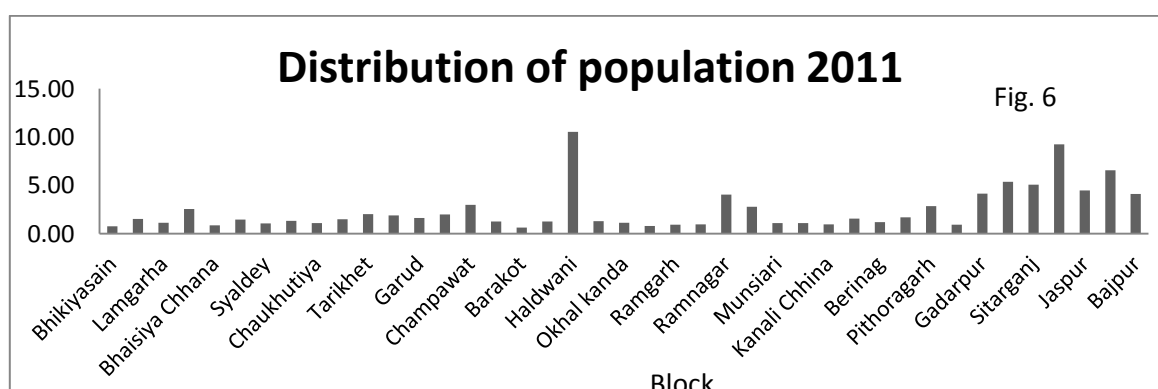**Distribution of population 2011**

Fig. 6

Block wise size of population further analysed in Table 3. It reveals that maximum 28 developmental blocks are less than 1 lack population size which shares about 35.24% population. Beside this 5 blocks have more than 2 lack population which share maximum 36.81% population of the

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Kumaun region. Rest of the 8 blocks size of population is between 100000 and 200000 which share 27.95% population (Table 3). It is concluded that lower number of block share higher population and higher number of block share low population which shows the uneven distributional pattern in the Kumaun region.

Table 3 Block wise Size of Population

Size and Distribution of population			
Population	No. of Block	Total population	%
< 50000	14	573918	13.57
50000 - 100000	14	916252	21.67
100000 - 150000	4	472824	11.18
150000 - 200000	4	709342	16.77
20000 >	5	1556662	36.81
Total	41	4228998	100.00

Density of Population

Density of population in the mountain ecology is directly influenced by the three basic components: the physical environment, climatic conditions and infrastructural development. The influence of natural environment, especially climate, soils and slope morphology affects the agricultural productivity in mountain ecology. The overall density of population of the Kumaun Himalaya is 200/km^2, which is 11 points more than Uttarakhand (189) and 182 points less than India (382).

District wise density of population is shown in Table 1 which reveals that most density district is Udham Singh Nagar (625) followed by Nainital (229) and Almora(211). The minimum density districts are Pithoragarh (67), Bageswar (102) and Champawat (146). The analysis shows that most of the concentration of population found in the Bhabar and Tarai plain zone and very low in higher mountain zone because of undulated difficult terrain and in hospital climate.

Similarly block wise density of population is also analysed in Table 2 and represented in Fig. 5. Maximum population density 992/km^2 is found in Rudrapur block of Udham Singh Nagar district. The minimum density 17/km^2 is found in Munsiari block in Pithoragarh district.   It also concluded that the density population is higher in the Bhabar and Tarai region and very low in the blocks of mountainous region.

Table 4 Density of Population

Density of population				
Density class per km2	No. of Block	%	Total population	Total population %
< 100	4	9.76	246044	5.82
100 - 150	8	19.51	348942	8.25
150 - 200	14	34.15	634708	15.01
200 - 250	5	12.20	328301	7.76
250 >	10	24.39	2671003	63.16
Total	41	100.00	4228998	100.00

Table 4 reveals that maximum 14 blocks came under the density class of 150-200/km^2 which share 15% of total population while 10 blocks population density calculated more than 250/km^2 which share 63.16 % population. Less than 100 density classes cover 4 blocks sharing population of only 5.82%.

Growth of Population

The term growth of population is generally used to refer to the change in the number of inhabitants of a territory during a specific period of time, irrespective of whether the change is negative or positive. Population growth may be measured both in absolute terms and in percentage form.

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Population growth is the product of a combined operation of the three population process viz. the fertility, mortality and migration. It is fact that since independent the population has double everywhere in India including Kumaun region also. The population of India has increased 667million during 50 years, from 1951-2000. This is the period of fast growing growth rate of population. The basic reason for this fast growth rate are developmental activities in different part of the country, improving condition of food supply, improving medical treatment, migration and development of urban centres. The estimated mortality rate in India decline significantly from 27/1000 in 1951 to 8/1000 in 2001. Similarly the birth rate significantly has decreased from 41/1000 in 1951 to 26/1000 in 2001. Thus, during 50 years the death rate decreased 19 points and birth rate also decreased by only 15 points but even than the population of India was increased very rapidly (Moriya, S.D., 2003, Chadana, R.C., 2002).

The population of the Kumaun region has shown a greater spurt in growth after independence. During 1951-81 the population of Kumaun region was more than double (Khanka 1988). After 1981, the population increased but with decline rates (Fig. 7 and Table 5). In 1971-81 decade it was 28.55 while in 2001-11decade it reached 18.61. After independence tremendous population growth recorded in the Tarai and Bhabar zone.

Table 5 Population Growths in Kumaun, 1971-2011

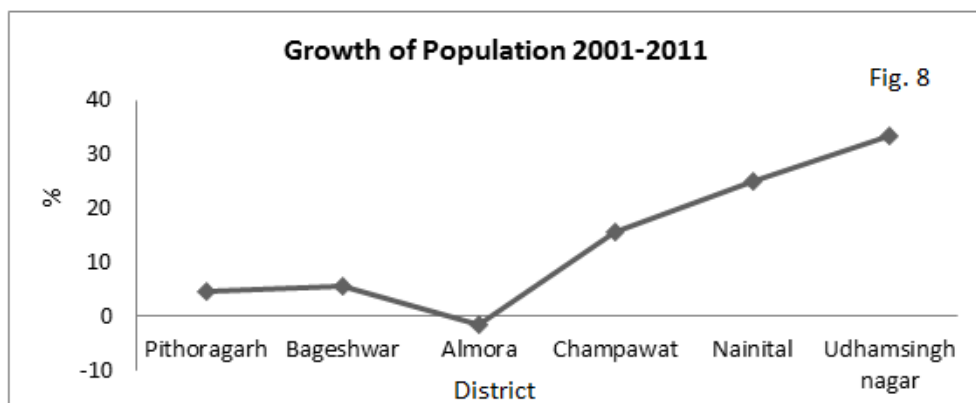| Kumaun Region	Population Growth			
	1971-81	1981-91	1991-2001	2001-11
	28.55	23.50	21.11	18.61

Source- Census of India
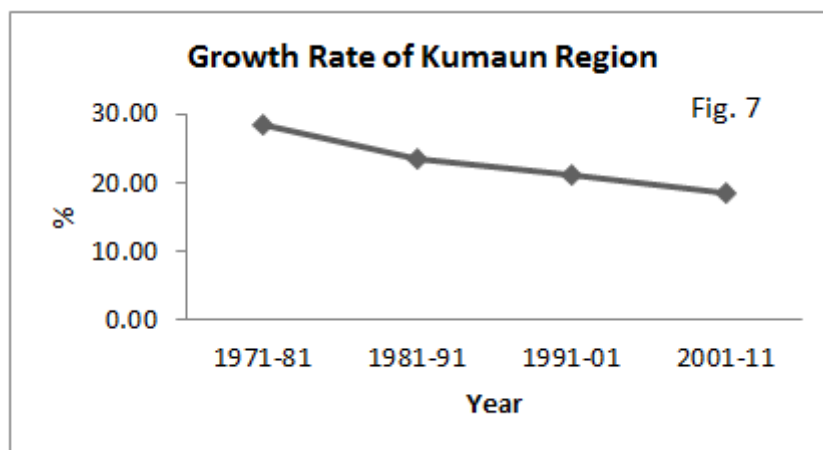
The differential growth rate of population in different districts has been experienced in each of the decades. District wise Growth rate has been calculated during 2001-2011 decade (Table 6 and Fig. 8). On considering the population growth, maximum growth rate is calculated in Udham Singh Nagar district which is 33.45% followed by Nainital district (25.13). Fig. 8 represent that the minimum growth rates recorded in Bageswar and Pithoragrh district 5.57 and 4.57 respectively. Only Almora district growth rate is -1.51% which is alarming situation of the region. Increasing trend of growth rate found in Tarai districts i.e. Champawat, Nainital and Udham Singh Nagar.

Table 6 District wise Population of Kumaun Region, 1971-2011

District	Population Growth			
	1971-81	1981-91	1991-01	2001-11
Almora	15.54	9.44	3.75	-1.51
Bageshwar	22.87	12.05	9.72	5.57
Champawat	27.48	24.26	17.60	15.63
Nanital	40.38	-7.16	83.11	25.13
Pithoragarh	15.24	58.98	-19.58	4.58
Udham Singh Nagar	46.03	40.21	33.60	33.45
Kumaun Region	28.55	23.50	21.11	18.61

In this context, the growth of population of the Kumaun region has been assessed on the basis of developmental block level. The population growth of each developmental block is also calculated in the last decade 2001-2011which shows wide variation from -13.32 to +49.9 (Table 2). Rudrapur block has maximum growth rate i.e. 49.9% while minimum population growth rate is found in Bhikiyasain block of Almora district i.e. -13.32%.

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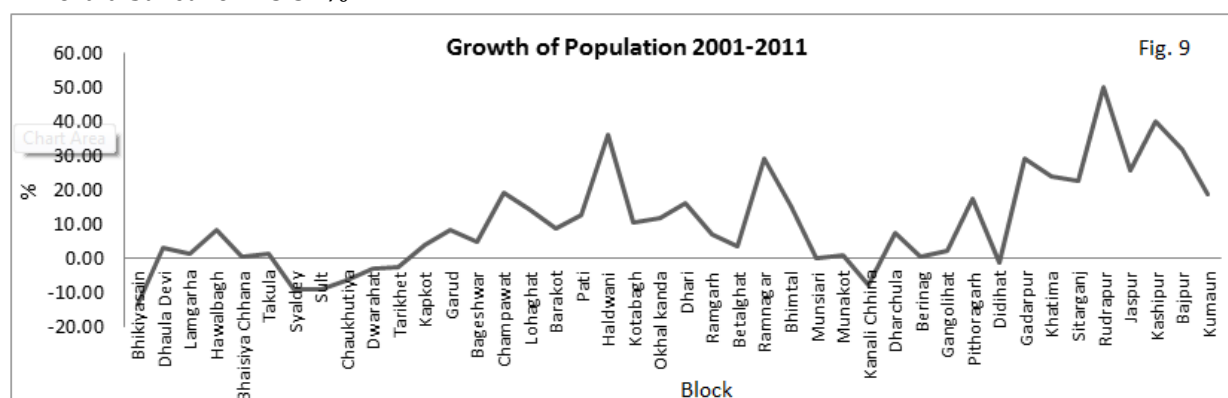
Table 7 Summary of Population Growth

| Growth of population				
Growth	No. of Block	%	Total population	Total population %
< 0	9	21.95	457085	10.81
0 - 10	15	36.59	896586	21.20
10 - 20,	8	19.51	609323	14.41
20 - 30	5	12.20	977470	23.11
30 - 40	3	7.32	897668	21.23
40 >	1	2.44	390866	9.24
Total	41	100.00	4228998	100.00

Fig. 9 shows that, population growth of 9 blocks is minus. Among them most of the blocks are in Almora district. Beside this Haldwani, Ranagar and Kashipur growth trend is increasing. Most of the hill blocks trend is decreasing in nature (Fig.9).

Table 7 reveals that 21% blocks of Kumaun region in Uttarakhand are under minus growth population. Maximum 36.58% blocks are under 0-10% growth of population which indicating the decreasing trend of population. But this trend of growth not found in all the blocks in the region. Decreasing trend is higher in the blocks of hilly regions and increasing trend in the blocks of Bhabar and Tarai zone. It shows that the regional migration is continuous from hill to plain. It should be taken care by the planners and administrator of the Uttarakhand state. Regional imbalance creates the numerous problems in future.

Sex Ratio

The distribution of male and female in a society has direct bearing on the social and economic relationship. Uneven distribution of the sexes in the population can disturb the basic equilibrium within the society. In this section, the sex ratio of the population is presented at the block level for all the districts of the Kumaun Himalaya. The overall sex ratio of Kumaun region is negative i.e. 978/1000 which is 15 points higher than Uttarakhand (963) and 25 points higher than India (943). Table 1 show that the pronounced inconsistency in the sex ratio in three districts i.e. Almora, Bageswar and Pithoragarh is very significant. An abnormally high sex ratio, even exceeding 1000 in the three districts, and a negative sex ratio in the Udham Singh Nagar, Nainital and Champawat are primarily due to male outmigration from the hill district and in migration in plain districts (Table 1).

The distribution pattern of sex ratio of the population at the block level shows the sex ratio concern Syaldey block of Almora district has maximum ratio 1327 and minimum sex ratio 900 is in Rudrapur block of Udham Singh Nagar (Table 2).The distributional pattern of sex ratio is shown in Fig. 10.


Fig. 10

Fig. 11

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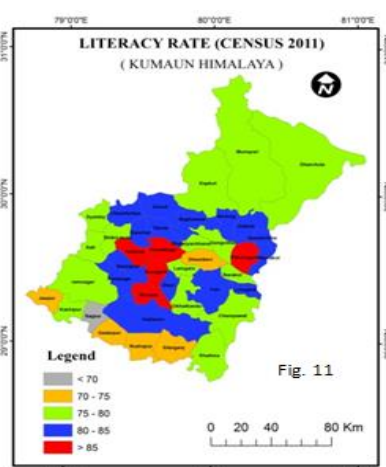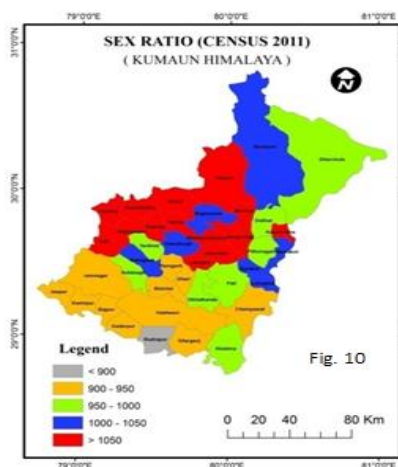
Table 8 Distribution of Sex Ratio in Blocks

Sex Ratio				
Range of sex Ratio	No of Block	%	Total population	Total population %
< 900	1	2.44	390866	9.24
900 - 950	11	26.83	1966294	46.50
950 - 1000	8	19.51	696639	16.47
1000 - 1050	7	17.07	407336	9.63
1050 >	14	34.15	767863	18.16
Total	41	100.00	4228998	100.00

Table 8 reveals that maximum percentage (34.15%) of blocks are under the very high sex ratio (>1050) followed by high sex ratio (1000-1050). Beside this rest of the blocks are under low and very low sex ratio. It is concluded that the sex ratio is generally low in the hill region because of the male migration from hill to plain for the search of employment.

Literacy Rate

Literacy is one of the important parameter of demographic characteristics which shows the educational status of the societies, in a particular region. A person, who can both read and write with understanding in any language, is treated as literate. Children in the age group 0-6 are treated as illiterate. The overall literacy rate of Kumaun region is 78.52%. It is almost same as literacy rate (78.82%) of Uttarakhand and higher than India (72.98). The highest literacy rate (83.88%) is found in the districts of Nainital followed by Pithoragarh district (82.25%). The minimum literacy rates are found in Udham Sing Nagar and Champawat districts73.10% and 79.83% respectively. The literacy rates of male and female in Kumaun region are 87.36 and 69.61 respectively. The literacy rate of female is higher than the literacy rates of India.
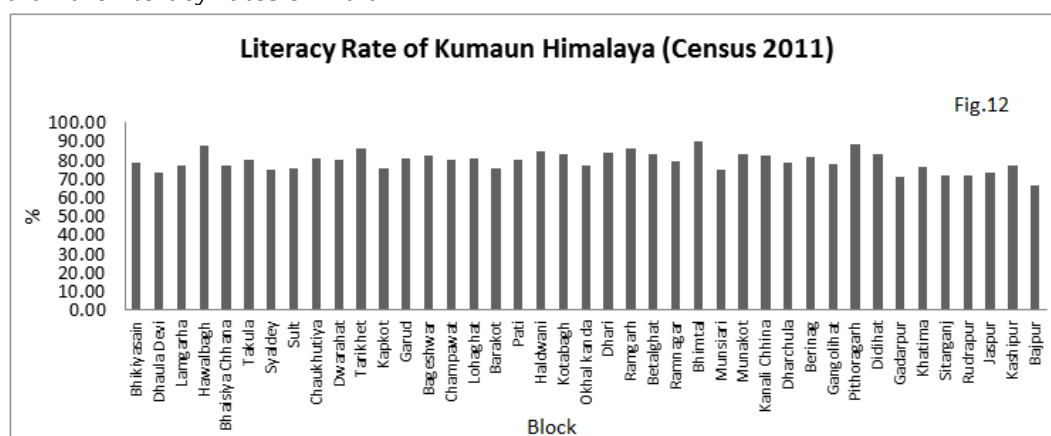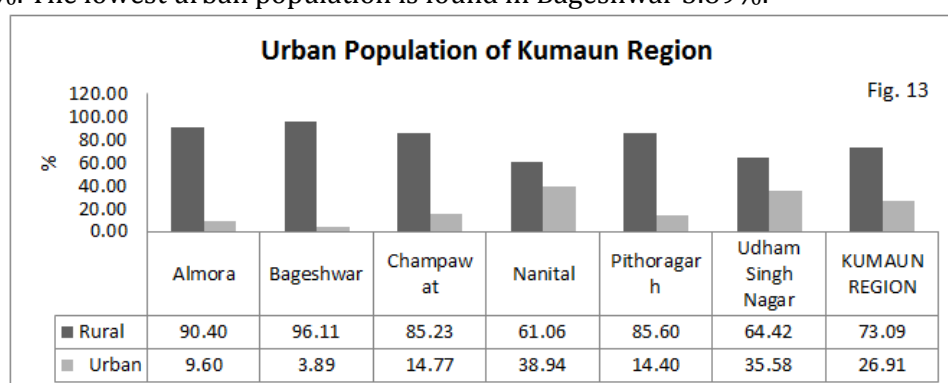

The block wise distribution of literacy is shown in Table 2 and represented in Fig. 11& 12. The maximum literacy is found in the Bhimtal block (90.44%) of Nainital and minimum literacy rate in Bajpur block (66.71%) of Udham Singh Nagar. Table 9 reveals that 73.18% blocks are having literacy between 75-85% which is higher than average of Kumaun region. The female literacy rates are continuously increasing in every decade's very rapidly. In 1971 the literacy rates of Kumaun region was 30.08% while it is 78.52% in 2011which increased 12.11% per decades. The rates are also increased multi times in blocks levels.

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Table 9 Distribution of Literacy Rates in Blocks

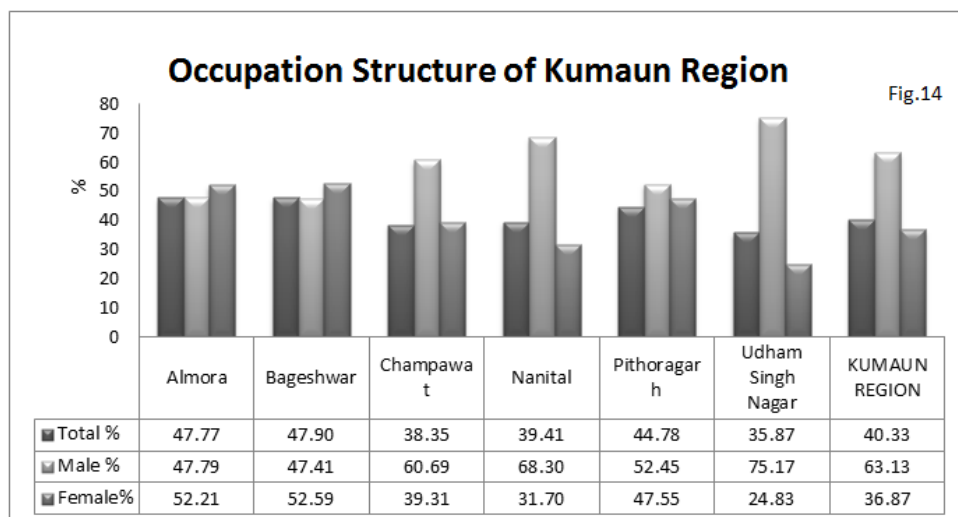| Literacy Rate				
Range of Literacy Rate	No of Block	%	Total Population	Total Population %
< 70	1	2.44	173526	4.10
70 - 75	5	12.20	1034817	24.47
75 - 80	15	36.59	1360408	32.17
80 - 85	15	36.59	1187438	28.08
85 >	5	12.20	472809	11.18
Total	41	100.00	4228998	100.00

Urban Population

During recent years, Kumaun Himalaya has experienced rapid urban growth due to population increase, enhanced transport connectivity, emergence of rural growth centres, development of tourism, improved access to markets, and the lack of effective land use policy. Besides the emergence and growth of a large number of new urban centres, existing towns are rapidly increasing both in size and area. More recently, comparatively less accessible areas have also begun the process of urbanization due to improved road connectivity and growth of tourism. Consequently, there has been tremendous increase in density, intensity and complexity of urban settlements. This is clearly indicated by fast growing urban population in the Region, particularly after 2001. Out of the total population of the Kumaun Himalaya 26.91% is urban and rest of the 73.09% is rural (Fig. 13). The distribution of urban population has been arranged in the three physiographic zones of the kumaun Himalaya. It is because of the large size of area unit and vast expansion of Tarai region in Nainital 38.94% and Udham Singh Nagar 35.58%. The lowest urban population is found in Bageshwar 3.89%.

Fig. 13

Urban Population of Kumaun Region

	Almora	Bageshwar	Champawat	Nanital	Pithoragarh	Udham Singh Nagar	KUMAUN REGION
Rural	90.40	96.11	85.23	61.06	85.60	64.42	73.09
Urban	9.60	3.89	14.77	38.94	14.40	35.58	26.91

Occupation structure

As per census 2011, the work force in Kumaun Himalaya is over 1705544 of the total workers, 63.13% males and 36.87% females (Fig. 14). The highest occupation structure is found in the districts of Bageshwar and Almora. The maximum occupation structure is found in the Syaldey block 63.50% of Almora and minimum occupation structure in Bajpur block 32.34% of Udham Singh Nagar (Table 2).

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Fig.14

Occupation Structure of Kumaun Region

	Almora	Bageshwar	Champawat	Nanital	Pithoragarh	Udham Singh Nagar	KUMAUN REGION
Total %	47.77	47.90	38.35	39.41	44.78	35.87	40.33
Male %	47.79	47.41	60.69	68.30	52.45	75.17	63.13
Female%	52.21	52.59	39.31	31.70	47.55	24.83	36.87

Schedule Cast Population

As per census 2011, the schedule cast population of Kumaun Himalaya was 820287 which are 19.40% of the total. Out of that 50.69% were male and 49.31% female. The highest schedule cast population is found in the districts of Udham Singh Nagar followed by 238264. The maximum schedule cast population is found in the Rudrapur block of Udham Singh Nagar district and minimum in Champawat district. As far as the block is concern the maximum concentration of SC population is found in Rudrapur block of Udham Singh Nagar district and minimum in Barkot block of Champawat district. The overall sex ratio of SC is 973/1000 in Kumaun region which is 19 points more than Uttarakhand (954).

The schedule Tribe population of Kumaun region is 154669 which are 3.66 % of total population. Out of that 50.11% are male and 49.89 % female. Maximum ST Population is found in Udham Singh Nagar district (79.55%). The minimum population of ST is found in the Sult block of Almora district.

CONCLUSION

Results are also indicates that the population growth is decreasing in Almora district while rapidly increasing in Udham Singh Nagar and Nainital. Similarly sex ratio and literacy rate also show that maximum percentage is calculated in lesser Himalayan region while minimum found in Tarai-Bhabar region.

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