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“Population Growth in Himachal Pradesh 2001-2011: A Spatial Analysis”

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Abstract

Population growth is one of the important indicators of the level of socio-economic development because it is the level of socio-economic development that determines the rate of population at any given time. The analysis of population growth is an important element to the understanding not only of a region's problems but potentials (providing food, schooling, employment, health facilities, housing etc.) and for future planning. Therefore, it is useful to study the pattern of population growth of any region. The present study attempts to study the growth of population in Himachal Pradesh at tehsils/sub-tehsils level during 2001 to 2011. The study is mainly based on the secondary data collected from Directorate of Census Operations. The simple percentage method and choropleth technique have been used to highlight spatio-temporal variations in growth of population. The peculiar topographical characteristics of the state resulted into great spatial variation in growth pattern. The study reveals that about one-third of the tehsils/sub-tehsils witnessed a decadal growth rate, higher than the state average. There is an equal number of tehsils/sub-tehsils, where the decadal growth rate was below the state average.

Key words: Population Growth, Rural, Urban, Spatial Analysis, Himachal Pradesh, India.

Introduction

Population growth is one of the important indicators of the level of socio-economic development because it is the level of socio-economic development that determines the rate of population at any given time. Population growth is defined as the change in the numbers of a population over a specific time period through the process of natural increase or through the combined operation of natural increase and migration. Some authors prefer to use the word Population change instead of growth to encompass the possibility of decline in the number (Chandna, 2004)¹. Population growth is the net outcome of the combined operation of the three processes of population change, viz; fertility, mortality and migration. These are, indeed, the three basic factors that determine the growth of population in any area. The growth of population is an important demographic characteristic which helps in understanding the population change that a society has undergone and it also helps in predicting the future demographic characteristics of an area. The analysis of population growth therefore is an important element to the understanding not only of a region's problems but potentials (providing food, schooling, employment, health facilities, housing etc.) and for future planning (Agarwala, 1978)².

The state of Himachal Pradesh on which present study is focused too has come to witness a rapid growth of its population since 1971; the year state was recognized as full-fledged state of India. Within a span of forty years the

population of the state has more than doubled. However, it is heartening to note that during these years; the state has also made remarkable strides on socio-economic front leading the state to figure its name among the best performing states in demographic evolution. It is against this backdrop that this study aims to examine the nature of population growth in the state during 2001-2011.

Aims and Objectives

- ❖ To understand the nature and magnitude of variations in population growth at tehsil/subtehsil level during 2001-2011.
- ❖ To trace the nature and magnitude of change in the rural and urban population growth between 2001-2011.
- ❖ To identify the core areas with growth rate either very high or very low.

Materials and Methods

The present study is entirely based on the secondary data obtained from various published and unpublished sources. The data relating to the population size for the two census years i.e. 2001 and 2011 have been collected from the Census of India publications, viz Primary Census Abstracts of 2001 & 2011 Census years for Himachal Pradesh. Tehsil/sub-tehsil forms the basic geographical unit for the present study. The population growth has been dealt with in both absolute and percentage terms. To keep the description simple, simple percentage method, choropleth maps and tables have been used to study the growth patterns at the two Census years i.e. 2001 and 2011. Among the different variants of growth covered in this study are included: growth of general population, growth of rural and urban populations. The following formula has been employed to calculate the percentage decadal growth rate of population:

$$\text{Computation of growth rate: PGR} = \frac{\text{PL} - \text{PB}}{\text{PB}} \times K$$

Where: PGR percentage growth rate

PL Figure of the Latest year under study

PB Figure of the Base year under study

K indicate hundred

Study Area: Himachal Pradesh

Himachal Pradesh is located between $30^{\circ} 22'$ to $33^{\circ} 12'$ North latitude and $75^{\circ} 47'$ to $79^{\circ} 4'$ East longitudes. The territory of Himachal is mountainous in nature with altitude varying from 300 meters to nearly 7000 meters. It covers a geographical area of 55,673 sq km, which constitutes about 1.69 percent of the total geographical area of India. Physiologically the state can be divided into two major regions, south western and north eastern (Chauhan, 1998)³. Administratively Himachal Pradesh is divided into 12 districts. During the decade under study there have been no jurisdictional changes in the territorial limits of Himachal Pradesh, either at inter-state or inter district level. However, eight new tehsils/sub-tehsils have been created that raised the number of tehsils/subtehsils from 109 in 2001 to 117 in 2011 Census (**Fig. 1**) (Census of India, 2011)⁴.

Results and Discussion

Growth of Total Population

The total population of 2011 Census, have reported that the total population of Himachal Pradesh was 68,64,602 persons which figure was higher by 7,86,702 persons than that of 2001. Census. In percentage terms, the population of the state has increased on an average rate of 12.94 percent. The corresponding national average during the same decade was 17.64 percent. The 12.94 percent as the average value of growth rate appears to be not a true representation of the real situation when we see the growth rate at the district level (**Table 1**).

The growth rate at the tehsil/sub-tehsil level was still more pronounced (**Fig. 2**). At the tehsil level, growth rate varied between -21.99 percent in Lahaul tehsil of Lahaul-Spiti district and 25.27 percent in Sainj tehsil of Kullu district. There were 20 tehsils/sub-tehsils in the state, where decadal growth rate of population was very high covering parts of Sirmaur and Shimla districts, these tehsils were widely scattered in different parts of the state forming no regular pattern, in view of the unlikelihood of an increase in the fertility rate or a sharp decline in the death rate. In almost equal number of tehsils (numbering 18) the population growth was very low. One cluster covered parts of Shimla and Kinnaur districts. Another cluster appeared in the mid-western parts of the state covering parts of Kangra, Hamirpur and Mandi districts. Following a rapid growth of literacy, these areas have experienced out-migration in search of job opportunities outside the state which explains their relatively slow growth of population. The very low growth of population was a characteristic feature of Multhan (1.52 percent) followed by Lad Bharol (1.68 percent), Sandhol (3.03 percent), Nichar (3.95 percent), Jaisnghpur (4.19 percent) and Nankhari (4.31 percent) tehsils.

There were as many as 75 tehsils/sub-tehsils where a moderate growth rate was recorded during the study period. As is visible in the figure 2, these tehsils/sub-tehsils covered the large part of the state. It is needless to say that area that experienced the moderate growth rate was those where moderate conditions with respect to the three processes of population change i.e. fertility, mortality and migration prevailed thus giving rise to moderate growth of population. In four tehsils viz. Udaipur, Lahaul, Holi and Poo, there was actual decline in the population which varied between as great as -21.99 percent in Lahaul tehsil and -0.82 percent in Poo tehsil. Due to difficult life conditions in these areas, the propensity to out-migrate must be very high among the inhabitants of these areas.

Growth of Rural Population

At the state level, the rural population increased at an average rate of 12.65 percent. However, this growth rate was not uniform at the lower areal levels i.e. at districts and tehsils. A perusal at table 2 leads one to see that the growth rate at the district level varied between a decline of -5.00 percent in Lahaul-Spiti district to an increase of 6.24 percent in Una district. The growth rate at the tehsil level was even more pronounced. At the tehsil level, growth rate varied between -21.99 percent in Lahaul tehsil of Lahaul-Spiti district to 25.27 percent in Kasauli tehsil of Solan district (**Table 2**).

From **Fig 3** it becomes very clear that the growth rate of rural population varied considerably from one part of the state to another. There were 10 tehsils out of a total of 117 tehsils in the state, where the decadal growth rate was

very high. A majority of these tehsils was found in the southern part of the state covering parts of Sirmaur, Solan and Shimla districts. The relatively higher decadal growth rate in these tehsils could be attributed to ongoing developmental activities in these areas that led to in-migration which pushed up their growth rate. Besides there were 31 tehsils of the state population increased at a rate lower than state average. Among these there were two major clusters; one covering the parts of Mandi, Hamirpur, Bilaspur and Kangra districts and the second one was spread over to the south-eastern part of the state covering eastern part of Shimla district and central part of Kinnaur district. The low growth of population in these areas was the product of out migration from rural to urban areas due to the attraction of better living conditions in the urban areas. An extremely low growth rate of rural population was found in Rampur (1.29 percent) followed by Multhan (1.52 percent), Lad Bharol (1.68 percent), Sandhol (3.08 percent), Morang (3.38 percent), Bali Chowki (3.41 percent) and Nichar (3.95 percent) tehsils.

In remaining tehsils/sub-tehsils numbering 71, the population growth varied between 9.00 to 18.00 percents. As is seen in **figure 3**, these tehsils/sub-tehsils covered the large part of the state. These areas have neither experienced any sizeable out-migration nor in-migration because of the absence of any push or pull factor which give rise to either of the migration type. The study has found four tehsils viz. Lahaul (-21.99 percent) followed by Udaipur (-5.90 percent), Holi (-2.89) and Poo (-0.82), where there was actual decline in the population. One characteristic feature that these tehsils shared together that all of them belonged to the tribal belt of the state and all of them shared similar topographic and climatic conditions.

Growth of Urban Population

As per 2011 Census, there were a total of 59 urban centers in Himachal Pradesh housing 6,88,552 persons. Two districts namely Lahaul-Spiti and Kinnaur had no urban component (**Table 3**). At the state level, the urban population increased at an average rate of 15.61 percent. The growth rate of urban population at the tehsils/sub-tehsils level was even more pronounced.

At the tehsil level, the growth rate varied between -14.79 percent in Shimla (Rural) of Shimla district and 82.38 percent in Rampur tehsil of Shimla district. The figure 4 shows that there were 13 tehsils/sub-tehsils in the state, where urban decadal growth rate of population was very high during the study period. With the exception of a loose conglomerate in the mid and southern part of the state covering parts of Kullu, Shimla and Sirmaur districts, these tehsils were widely scattered in different parts of the state forming no regular pattern. Among the tehsils, which experienced relatively high growth of urban population includes; Rampur (82.38 percent) followed by Seoni (69.46 percent), Kullu (40.70 percent), Ghumarwin (38.07 percent), Baddi (32.34 percent) and Ponta Sahib (31.92 percent). The low growth experiencing these tehsils too formed an irregular pattern consisting of various clusters spread over different parts of Kullu, Shimla, Sirmaur and Solan districts the state. Very small migration to urban places located in these tehsils and decline in the fertility rate may be the probable cause underlying low growth rate of population in these areas. The very low growth of urban population was a characteristic feature of Nadaun (0.57 percent) followed by Sundar Nagar (1.49 percent), Hamirpur (2.04 percent) Kotkhai (3.57 percent) and Naina Devi (3.70 percent) tehsils of the state.

In remaining tehsils/sub-tehsils moderate population growth was recorded during the study period. The **Fig. 4** reveals that the spread of these tehsils/sub-tehsils did not form a regular pattern and were scattered over to different parts of the Una, Bilaspur, Kangra and Shimla districts of the state. These areas may be taken to have experienced moderate life conditions with respect to the development activities and hence a moderate fertility rate and impact of migration. There were five tehsils viz. Shimla (Rural) (-14.79 percent) followed by Palampur (-11.56 percent), Kasauli (-7.03 percent), Chamba (-1.94 percent) and Barsar (-1.29 percent) tehsils, where there was an actual decline in the urban population. The study revealed that the very small size of urban population in these tehsils also have contributed to the apparent decline because even a small shift of the population will make a difference as to whether there if going to be growth or decline in the population.

Conclusions

Himachal Pradesh witnessed a decadal growth rate lower than the corresponding national average during the period under study signifying thereby an impressive achievement in its efforts towards controlling the population growth rate. A little over about one-third of the tehsils/sub-tehsils witnessed a decadal growth rate, higher than the state average. By comparison, in almost equal number of tehsils/sub-tehsils, the decadal growth rate was below the state average. Broadly, the south-western parts of the state displayed relatively high growth rate while the north-eastern parts of the state experienced low growth of population. Therefore, impact of topography and climatic conditions is clearly visible on population growth pattern of the state. As one moves from south-western part of the state towards north-eastern part, population growth rate declines considerably.

There was a notable disparity in the rural urban population growth pattern. The population growth in the rural area was of smaller magnitude than that of the urban area due to migration factor. The relatively high growth of urban population was a characteristic feature of tehsils/sub-tehsils of Kullu, Sirmaur, Shimla and Solan districts which had higher degree of urbanization and higher employment opportunities. By comparison, low growth of urban population marked those parts of the state, which are known for general backwardness, like Chamba, Lahaul-Spiti and Kinnaur districts of the state.

Suggestions

- ❖ To curb the population growth especially in the areas, which are still under the spell of high growth rate, a rapid spread of the educational facilities is extremely desirable.
- ❖ Similarly, there is an urgent need for spreading the medical facilities, particularly child and mother care facilities in the rural and backward areas of the state so that the infant mortality rate and maternal mortality rates be brought under control.
- ❖ All possible efforts need to be made by the government to improve the standard of living of the people, because it is the low standard of living, which is the major factor in the high population growth rate.

References

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Table 1
Himachal Pradesh
District wise Decadal Growth Rate of Total Population (2001-2011)

S. No.	Name of Districts	Growth Rate
1	Chamba	13.28
2	Kangra	12.40
3	Lahaul-Spiti	-5.00
4	Kullu	12.81
5	Mandi	11.52
6	Hamirpur	10.68
7	Una	16.26
8	Bilaspur	11.88
9	Solan	16.81
10	Sirmaur	15.03
11	Shimla	10.34
12	Kinnaur	7.39
Himachal Pradesh		12.94

Source: Census of India 2001and 2011, Primary Census Abstracts.

Table 2
Himachal Pradesh
District-wise Decadal Growth Rate of Rural Population (2001-2011)

S. No.	Name of Districts	Growth Rate
1	Chamba	13.28
2	Kangra	12.40
3	Lahaul-Spiti	-5.00
4	Kullu	12.81
5	Mandi	11.49
6	Hamirpur	10.68
7	Una	6.24
8	Bilaspur	11.88
9	Solan	16.81
10	Sirmaur	15.13
11	Shimla	10.34
12	Kinnaur	7.39
Himachal Pradesh		12.65

Source: Census of India, 2001 and 2011, Primary Census Abstracts.

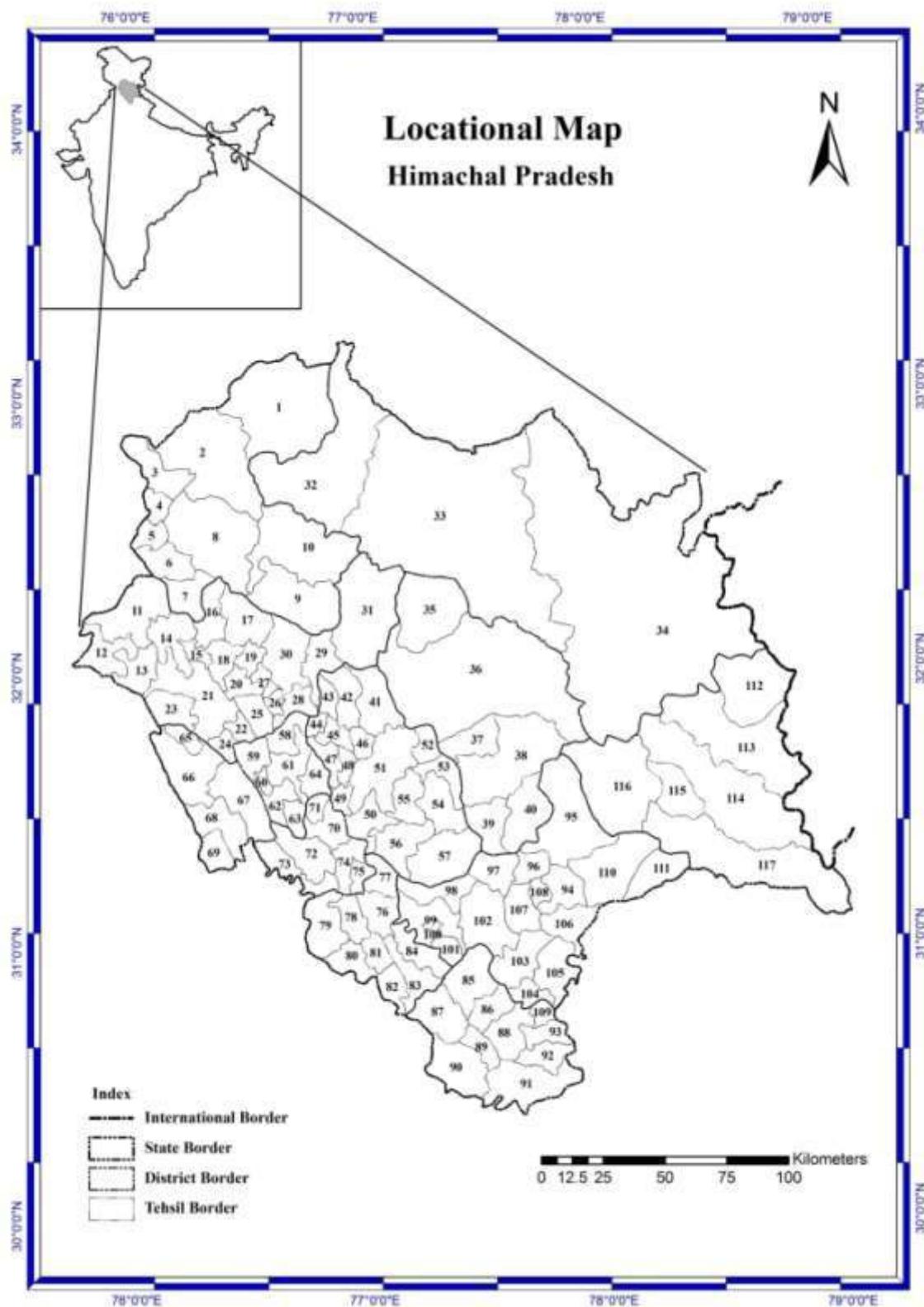
Table 3
Himachal Pradesh
District wise Decadal Growth Rate of Urban Population (2001-2011)

S. No.	Name of Districts	Growth Rate
1	Chamba	4.53
2	Kangra	19.36
3	Lahaul-Spiti	NUP
4	Kullu	37.54

5	Mandi	2.71
6	Hamirpur	4.05
7	Una	13.92
8	Bilaspur	14.48
9	Solan	15.53
10	Sirmaur	19.92
11	Shimla	20.40
12	Kinnaur	NUP
Himachal Pradesh		15.61

Source: Census of India, 2001 and 2011, Primary Census Abstracts.

NUP: indicates No Urban Population

**Fig.1 Location of Study Area (Himachal Pradesh) in India**

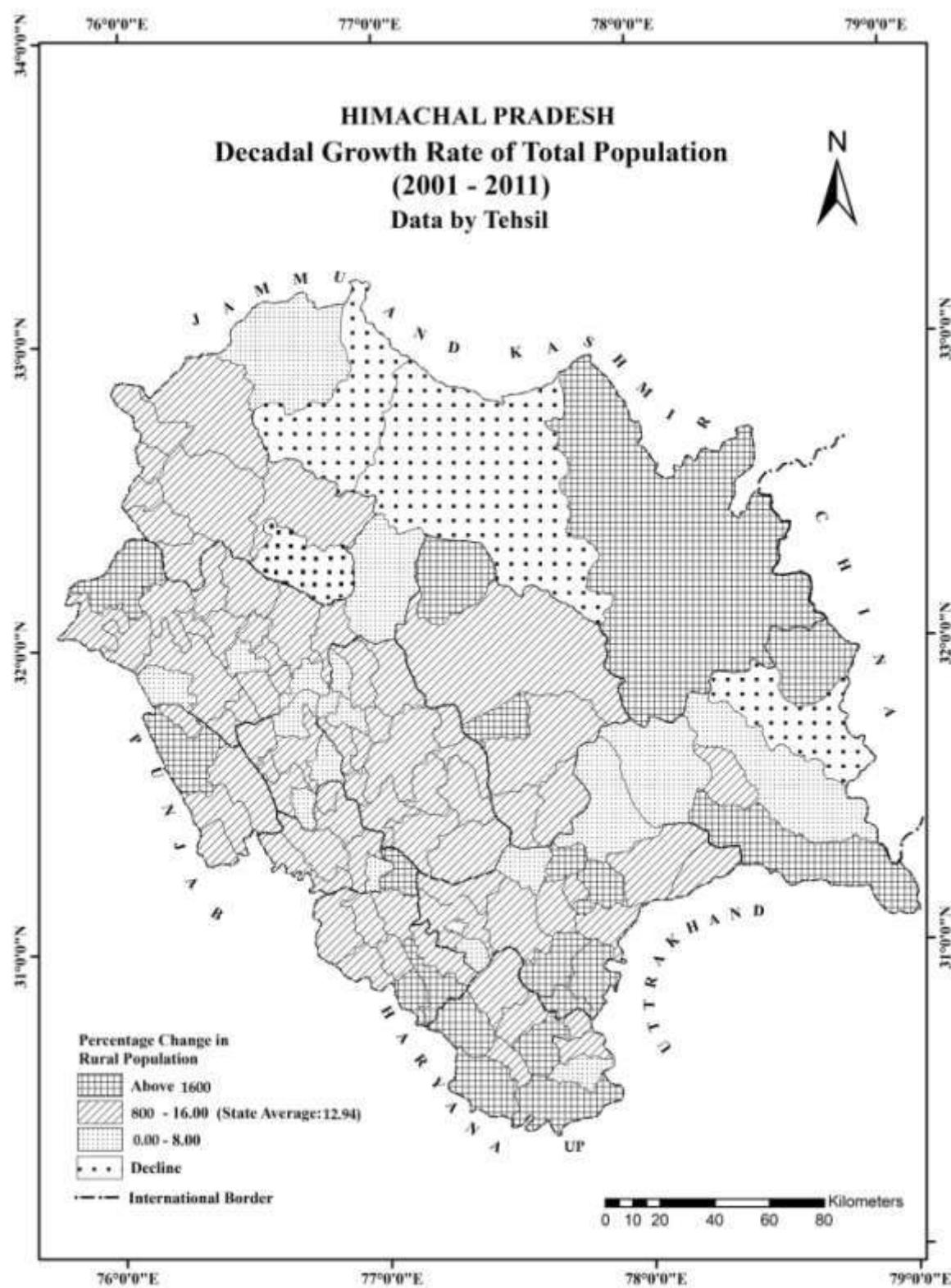


Fig.2 Decadal Growth Rate of Total Population (2001-2011)

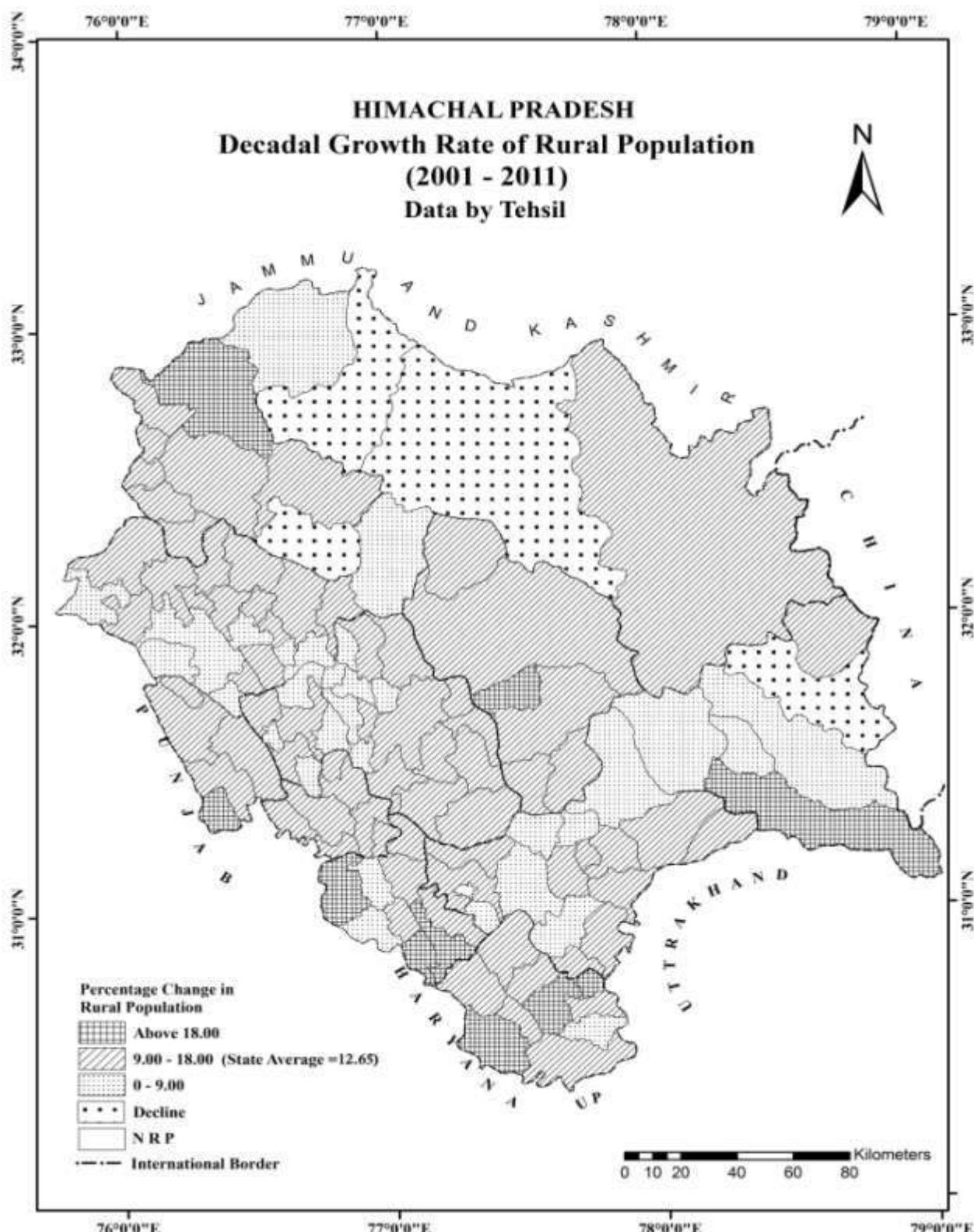


Fig.3 Decadal Growth Rate of Rural Population (2001-2011)

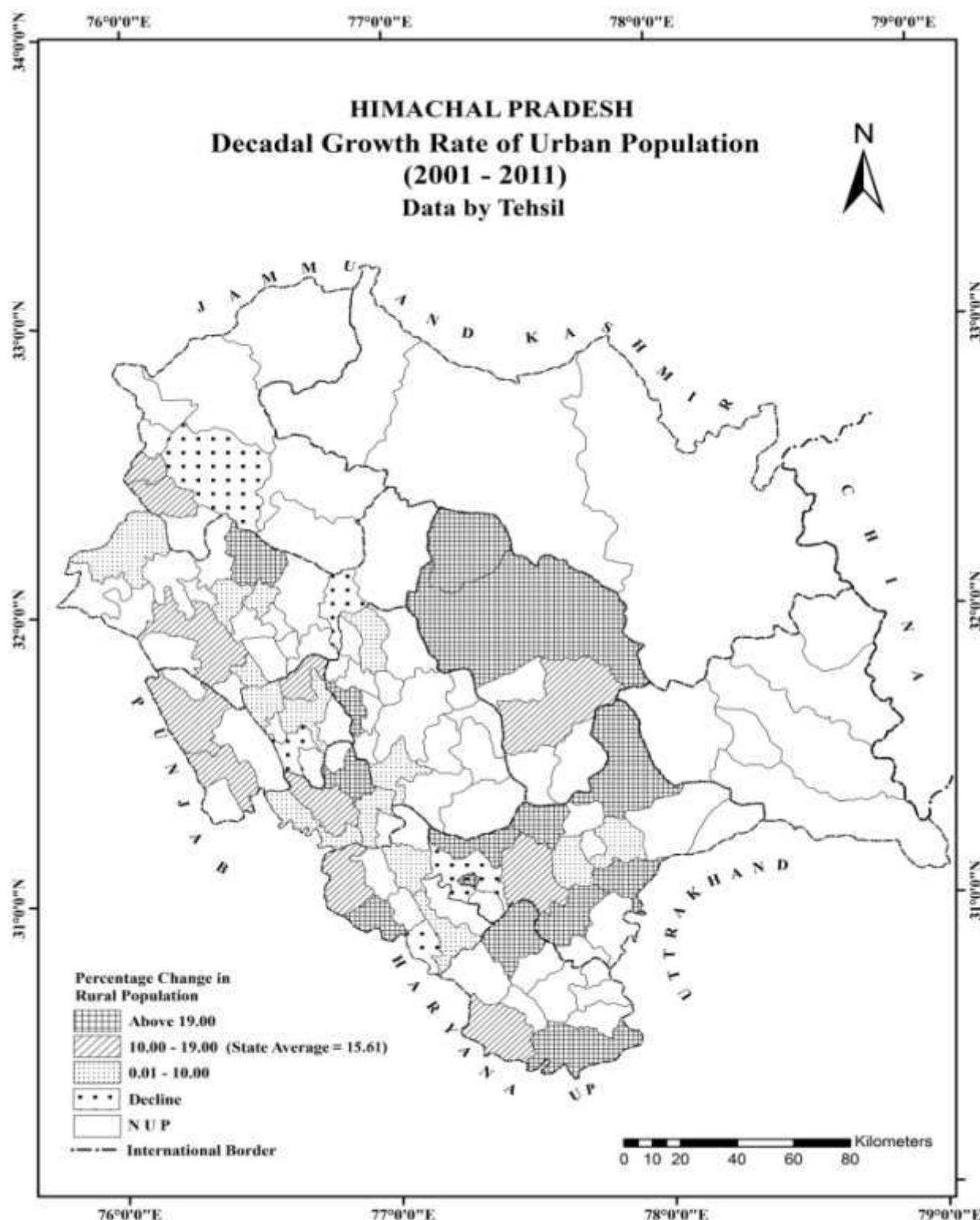


Fig.4 Decadal Growth Rate of Urban Population (2001-2011)