



# punjab geographer

A JOURNAL OF THE ASSOCIATION OF  
PUNJAB GEOGRAPHERS, INDIA

VOLUME 7

OCTOBER 2011



## SPATIAL PATTERNS OF POPULATION CHANGE IN HARYANA: 1971- 2001

### Doctoral Dissertation Abstract (2011)

Author: **Sanjeev Goel**

Supervisor: **Prof. (Mrs.) Smita Bhutani**

Centre of Advanced Study in Geography,  
Panjab University, Chandigarh

Haryana has made a significant progress in all spheres of life since its inception as a separate state in 1966. Due to its strategic location in north-western India, Haryana plays a crucial role in connecting the states of Punjab, Himachal Pradesh, Jammu and Kashmir and union territory of Chandigarh with the national capital of Delhi and the rest of the country. Under the influence of the National Capital Region in south-east and Chandigarh Inter-State Region in the north, the state made a tremendous progress in urbanization, industrial development, agricultural transformation, socio-economic setup, transport and communication network and infra-structural facilities during 1971- 2001. Haryana has also witnessed significant changes in its attributes of population during this period. Though many studies were conducted by different scholars from time to time to focus on the spatial patterns of population and its attributes, but studies on patterns of population change suffered a great neglect on the part of the geographers. Even after 45 years of its formation as an independent state, no single study has been conducted on the spatial patterns of population change in Haryana.

The present doctoral dissertation is an attempt to fill this gap. It analyses the spatial

patterns of nine population attributes as per 2001 census data as well as patterns of change in these attributes during 1971- 2001. Male-female and rural- urban differences in these attributes have been studied in detail by using suitable statistical and cartographic techniques. All maps have been prepared by using ArcView 3.2a GIS software. Tahsil has been taken as a basic unit of study for the present exercise. Changes in administrative boundaries of these units have been taken care of while preparing the maps on change in population attributes during 1971-2001. Administrative boundaries of 1971 have been adjusted as per 2001 census administrative divisions. The study has been organized into nine chapters, each chapter analysing a particular attribute of population and the changes therein during 1971- 2001. The final chapter attempts to regionalise the state into three distinct regions on the basis of demographic development and degree of change in various population attributes during the study period.

### Major Findings

The population in Haryana was very unevenly distributed. The eastern, north-eastern and southern parts of the state were more densely populated than the central,



western and south-western parts. National Highway No. 1 (G. T. Road), National Capital Region (NCR) and Chandigarh Inter- State Region were three major magnets attracting large population towards these areas during this period. The degree of urbanization and level of industrial development were the most important determinants of the density of population in the state. The state recorded an increase of 251 persons in its density of population during 1971- 2001. Rural to urban migration played an important role as far as changes in density of population are concerned. Natural increase, however, did not contribute significantly to the increase in density of population, because the state's natural increase declined significantly as with medical advancement, death rate declined and with socio-economic development, birth rate also experienced a substantial fall. Mewat region of Gurgaon district, however, continued to experience a high rate of natural increase due to high levels of total fertility rate and crude birth rate.

Haryana recorded a growth of 28.43 per cent in its population during the decade 1991-2001. Migration played an important role in population growth in the highly developed regions, where both rural as well as urban growth was recorded very high. However, Mewat region recorded high growth of population due to its high rate of natural increase. In this region, rural growth rate was rapid and high while urban growth rate was slow. The large parts of the northern, central and south-eastern parts of the state experienced a slow growth of population both in rural as well as in urban areas.

With 861 females per thousand males, Haryana recorded the lowest sex ratio among all the states in 2001. This was largely attributed to a high mortality among females and large-scale male-selective in-migration.

The child sex ratio (0-6 age group) was even more critical, only 819 females per 1000 males. This was largely due to a low sex ratio at birth and higher mortality rates among females than males, particularly at lower age-groups. The rural areas recorded higher (866 females) sex ratio than that in the urban areas (847 females). The male selective rural to urban migration was found to be the most prominent factor influencing the sex ratio of both the places. Beside migration, decline in total fertility rate and small sized nuclear families were also responsible for a decline in urban sex ratio. High cost of living and difficulties in raising children motivated people to keep their family-size small and reduction in the number of children together with a strong desire to have a son resulted in large incidences of pre-birth sex determination tests and female foeticide, which further deteriorated the already low sex ratio in urban areas.

Haryana recorded 67.91 per cent of its total population as literates. Spatial patterns of literacy indicated that the areas located along the G. T. Road, in the National Capital Region and in the Chandigarh Inter- State Region recorded a high literacy among males as well as females. On the other hand, female literacy was low in the north- western, western and south-eastern parts of the state. The eastern and south-western parts experienced a high increase in their overall literacy due to high increase in both male as well as female literacy rates.

Haryana recorded 28.92 per cent of its total population living in urban areas in 2001. The eastern part of the state was more urbanized than its western counterpart. The major urban centres of the state are located in the eastern part along the G. T. Road, from Ambala to Delhi. Contrary to this, areas with low degree of urbanisation were located in the western and south-western parts of the state. The proportion of urban population in Haryana

increased from 17.66 to 28.92 per cent during 1971- 2001. The total number of towns in the state increased from 65 to 106 during this period. Among them, Class I towns increased rapidly both in terms of numbers and their share in total urban population.

The state recorded 39.62 per cent of its population as workers. Among them, 36.03 per cent workers were classified as cultivators, while 15.27 per cent were agricultural labourers. Thus, more than half of total workforce (51.30 per cent) in the state was engaged in agriculture related activities. Besides these, 2.56 per cent of the total workers were classified as household industrial workers and the remaining 46.15 per cent were engaged in other economic activities.

In the final chapter, an attempt has been made to regionalise the state on the basis of population change during 1971- 2001. It was observed that tahsils located in the eastern part

of the state along the Ambala- Delhi national highway and in close proximity to the national capital of Delhi as well as state capital of Chandigarh were highly developed and dynamic as far as changes in population variables are concerned. High proportion of urban population to total population, high degree of industrialization and highly diversified economy played a crucial role in initiating the process of demographic development in the eastern region. Among different demographic variables, it was found that the level of demographic development was positively correlated with (i) proportion of non-agricultural workers to total workers (0.912), (ii) degree of urbanization (0.798) and (iii) female literacy rate (0.586). Contrary to this, work participation rate and sex ratio were negatively correlated with a correlation value of -0.642 and -0.598 respectively, with the level of demographic development.