

Rural-Urban Differentials in CSR in Himachal Pradesh: A Spatial Perspective

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Abstract

Demographic imbalance in any society can have major social and economic implications. Size and distribution of population by sex reflects balance or imbalance in a given population. To calculate this balance or imbalance, CSR (CSR) is been used for the age group of 0-6 in India. Majority of the south Asian countries have skewed CSR in favor of male child and India is also one of them. Among the states of India, hilly state of Himachal Pradesh is one of the bottom ranking states of India in terms of CSR which has otherwise performed well in other socio-economic indicators. So the present paper tries to analyze the rural-urban differentials in CSR in the state. The study finds out that the tahsils that record critical CSR are more in number and constitute major proportion of child population of the state than the tahsils that have normal CSR. Also, the tahsils that are below the state average are more in number and constitute higher proportion of child population.

KEYWORDS: Hill state, CSR, gender, rural, urban

Introduction

The sex composition of the population is an important indicator of social development (UNDP, 2002). Analyzing CSR of any space can be really beneficial for analyzing the demography as well as gender relations of that area. In most populations, female exceed males numerically but, in contrast the Indian sex ratio has been consistently low for a long time. Many states of India, especially from the north-west part of it have witnessed very low number of females compared to males. In this regard CSR can be used as an indicator of desirability of female child and the autonomy experienced by the women in any area (Singh et al., 2007; Eswaram, 2002).

The term 'CSR' is used to refer to the number of females per 1000 males in a defined age group- typically 0-6 years but occasionally 0-4 and 0-5 years. In India it is calculated for 0-6 age group. However, this female to male ratio is not uniform across any kind of space. These vary by region, by social group, age group and levels of prosperity (Dyson and Moore 1983). Analysis of available national census data indicates that in recent decades, sex ratio imbalances have grown in favor of boy children in a number of South Asian, East Asian and Central Asian countries (UNFPA, 2012). In India, the number of females to males is known to be among the most imbalanced in the world (Jha et al, 2006). This distorted demographic masculinization has serious social and economic implications (UNFPA, 2012).

In India, the state of Himachal Pradesh is a hilly state situated in the north. It has been found that the state has accomplished great success in various socio-economic indicators. Also, here the status of women is higher than the other neighboring states, but CSR of the state is a matter of concern. So the present study tries to understand the pattern of CSR in the tahsils of the state.

Study Area

Located in the north of the country, Himachal Pradesh lies between latitude 30° 22' 40" to 30° 12' 40" N and longitude 75° 47' 55" to 79° 04' 20" E. It is bounded on the north by the picturesque valley of Kashmir; on the south by the fertile plains of Punjab and Uttar Pradesh; on the west by the districts of Ambala (Haryana) and Hoshiarpur (Punjab); and finally on the north-east by Tibet. The region is veiled from Punjab plains by the Shiwalik hills. It is a tract with altitudes that range from about 350 metres to 6500 metres above mean sea level. The four important rivers viz. Satluj, Beas, Ravi, Chandrabhaga, that flow through the State, form its valley system. The fifth river, the Yamuna flows along the border of Himachal Pradesh. The climate is tropical and sub tropical in the lower areas, temperate in major portions and arctic in the high mountains which are perpetually covered by snow. The State represents the Western Himalayan eco-system replete with tremendous biological diversity from small animals and plants, to the majestic leopard and the lofty trees. Topographically, the State consists of five distinct sub-regions. These are (i) valley areas with elevations upto 1000 metres, (ii) low hills, between 1000 and 2000 metres, (iii) high hills which lie between 2000 and 3500 metres, (iv) the alpine zone with altitudes above 3500 metres, and (v) the land of the perpetual snows.

With an area of 55673 square kilometer, the state comprises of twelve districts. The population of the state according to 2011 census is 6864602. Population density of the state is 123 per square kilometer, with the decadal population growth (2001-2011) of 12.81 percent. The number of females per thousand of males in the state is 972 whereas it is 909 females per thousand males in the age group of 0-6. Literacy rate of the state is very satisfactory as it stood to be 83.78 percent.

Objectives

The prime objective of the study is to examine the CSR in the rural and urban setting of the state of Himachal Pradesh and to know the differential in rural urban CSR in the state.

Data sources and methodology

The data for the present study is secondary in nature. It has been used from census of India 2011. The unit of study is tahsil. For calculating CSR following formula has been used:

$$CSR = \frac{\text{Number of females (0-6)}}{\text{Number of Males (0-6)}} \times 1000$$

For making the study more comprehensive maps have been prepared using various cartographic techniques and tables have been prepared.

Results and Discussions

Spatial Pattern of CSR in Himachal Pradesh, 2011

The CSR in the state varied from the highest in Lahul tahsil (1079) of Lahul & Spiti district situated in alpine Himalayas to the lowest in Sarkaghat tahsil (807) of Mandi

district situated in lower hilly and plain areas of Shiwalik. For the understanding of spatial pattern tahsils of the state may be classified into three categories on the basis of CSR- (a) Normal CSR tahsils with CSR above 950 (b) Sub-normal CSR tahsils with CSR between 900 to 950 (c) Critical CSR tahsils with CSR below 900.

Normal CSR Tahsils (above 950)

31 out of total 117 tahsils of Himachal Pradesh recorded CSR above 950. These 31 tahsils were distributed primarily in the Chamba valley, Lahul & Spiti valley, Sangla valley, Kullu valley, parts of mid mountains falling in Mandi and Shimla district along with some lower parts of Paonta valley (Fig. 1.1 A). Together these tahsils constituted 17 percent of the total child population of the state. Data reveals clearly that these tahsils of the state constituted the lowest proportion of child population of the state (Table 1.1).

Sub-normal CSR Tahsils (900-950)

There were maximum 48 tahsils where CSR ranged between 900 to 950 females per thousand males. These tahsils were primarily distributed in the inner Himalayas with small portion in the lower hills of the state. These tahsils together constituted maximum 43 percent of the total child population of the state.

Critical CSR Tahsils (below 900)

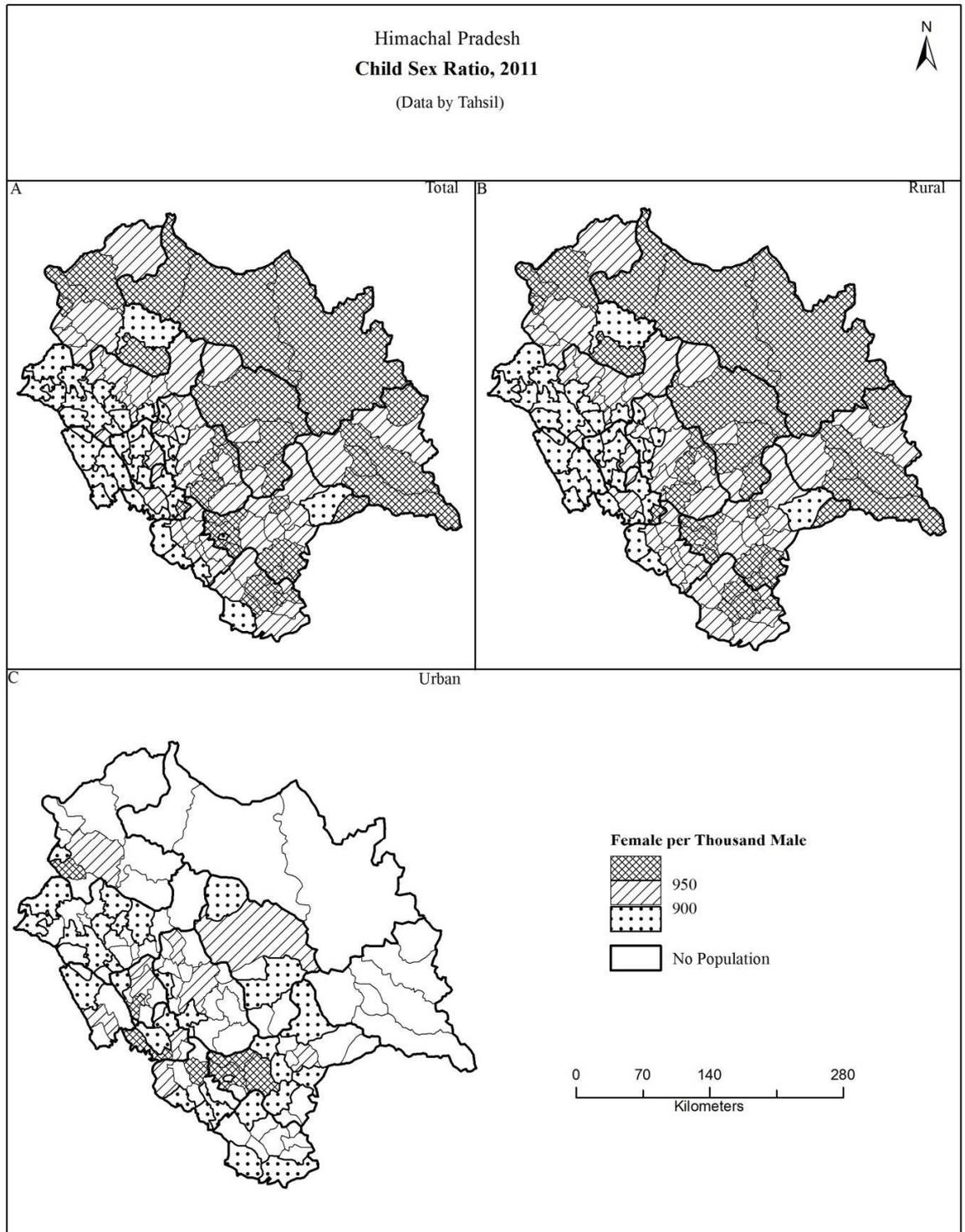
Among the 38 tahsils that recorded CSR below 900 females per thousand males nearly all of them were concentrated in the Shiwaliks encompassing the tahsils from lower hilly and plain areas of Kangra valley, Swan valley, Paonta valley and lower plains of Bilaspur and Hamirpur district. These tahsils occupied maximum 40 percent of the state's total child population

Table 1.1
Himachal Pradesh: Tahsils Classified by CSR (Child Population Coverage), 2011

Category (CSR)	Total		Rural		Urban	
	Number of Tahsils	Child Population as percent to total Child Population of State	Number of Tahsils	Population as percent to total Child Population of State	Number of Tahsils	Population as percent to total Child Population of State
Normal (>950)	31	17	30	16	7	3
Sub-normal (900-950)	48	43	51	48	10	27
Critical (<900)	38	40	35	36	29	70

Source: Census of India, 2011. Primary Census Abstract. Office of the Registrar General & Census Commissioner, India.

Fig. 1.1



Source: Census of India. 2011. Primary Census Abstract. Office of the Registrar General & Census Commissioner, India.

Evidently, 71 out of 117 tahsils were above the state average and constituted 53 percent of the total child population of the state. These tahsils were distributed primarily in the greater Himalayas and inner Himalayas along with some located in the outer Himalayas constituting lower parts of Paonta valley and Solan district (Fig. 1.2 A). Against this, there were 46 tahsils that were below the state average and constituted 47 percent of the total child population of the state. Nearly all of them were located in the Shiwalik plains (Table 1.2).

Table 1.2

Himachal Pradesh: Levels of CSR by Tahsils (Population Coverage), 2011

Category (Females per thousand Males in 0- 6 age group)	Total		Rural		Urban	
	Number of Tahsils	Population as Percent to Total Population of State	Number of Tahsils	Population as Percent to Total Population of State	Number of Tahsils	Population as Percent to Total Population of State
Tahsils Above State Average	71	53	67	48	13	18
Tahsils Below State Average	46	47	49	52	33	82

Source: Census of India. 2011. Primary Census Abstract. Office of the Registrar General & Census Commissioner, India.

CSR, 2011 (Rural)

In rural areas, CSR varied from the highest in Lahul tahsil (1079) located in the twin valley of Lahul & Spiti to the lowest in Sarkaghat (817) located in the outer Himalayas. For understanding spatial variation the tahsils of the state can be grouped into following sub heads on the basis of CSR:

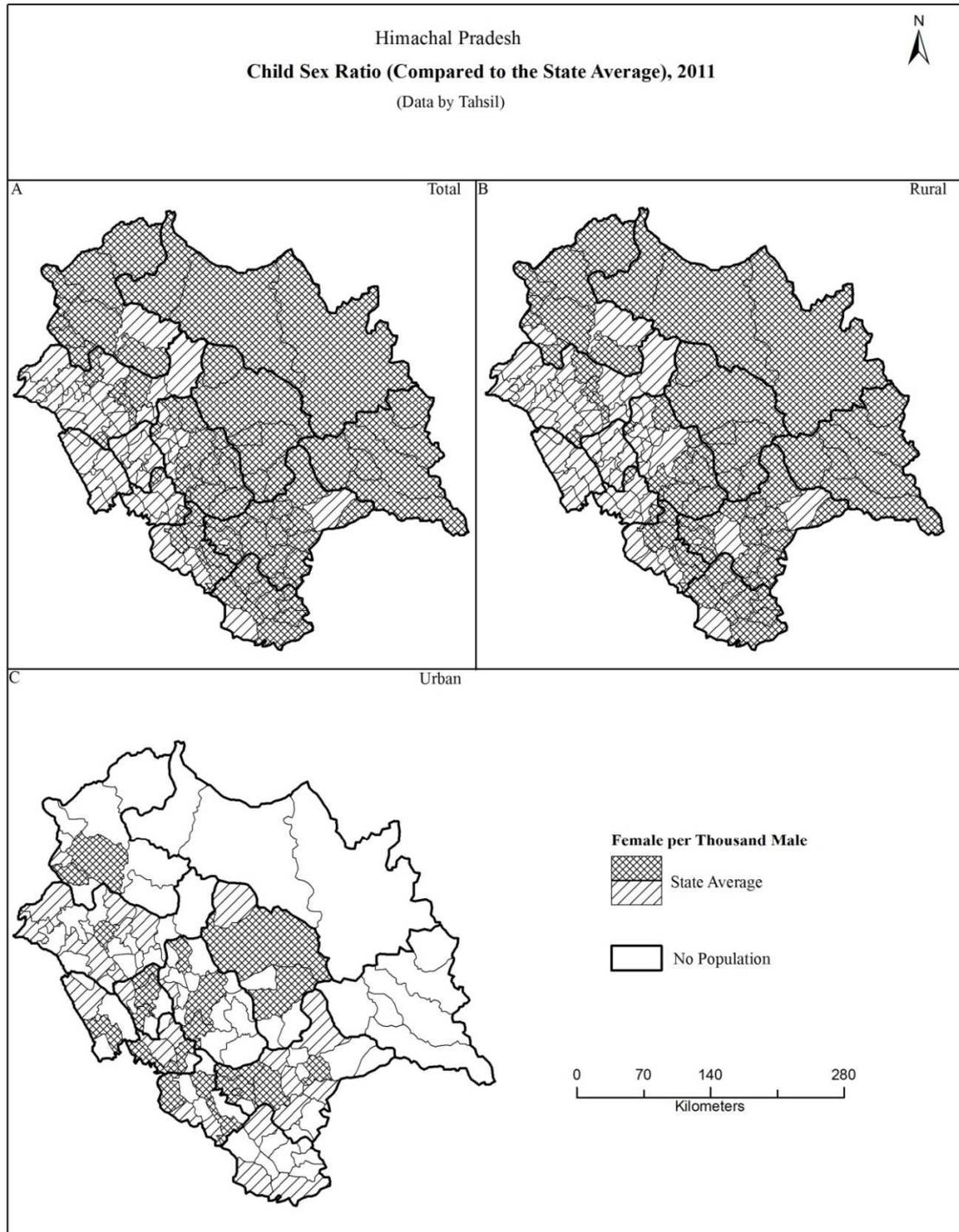
Normal CSR Tahsils (above 950)

There were 30 tahsils mainly from the mid mountains and greater Himalayas where rural CSR was above 950 females per thousand males (Fig 1.1 b). These tahsils constituted 16 percent of the state's child population (Table 1.1)

Sub-normal CSR Tahsils (900-950)

Among the tahsils in Himachal Pradesh, 51 out of the total 116 tahsils recorded CSR ranging between 900 to 950 females per thousand males. These tahsils constituted 48 percent of state's population and were located in the mid and outer Himalayas.

Fig. 1.2



Source: Census of India. 2011. Primary Census Abstract. Office of the Registrar General & Census Commissioner, India.

Note: Total State average is 909, Rural State average is 912 and Urban State average is 881.

Critical CSR Tahsils (850-900)

In the state, 35 out of the total 116 tahsils recorded CSR below 850 females per thousand males and were situated in the western parts of the state in majority, falling in Shiwalik and outer Himalayas. These tahsils constituted 36 percent of the state's child population. Evidently, compared to the state average (912), 67 of the total tahsils were above it. These tahsils were located in upper and middle parts of the Himalayas falling in Himachal Pradesh (Fig. 1.2 B). Further, these tahsils constituted 48 percent of the state's child population (Table 1.2).

CSR (Urban), 2011

Among the tahsil, urban CSR varied from maximum 1030 in Shimla (R) located in mid mountains to minimum 669 in Sarkaghat tahsil located in the lower parts of inner Himalayas. These tahsils of the state can be grouped into following sub groups to map spatial distribution on the basis of CSR:

Normal CSR Tahsils (above 950)

In the state out of total 46 tahsils, seven tahsils namely Bhattiyat located in the lower parts of inner Himalayas of Chamba valley, Barsar, Naina Devi falling in the lower plains, Arki falling in Kunihar valley and Shimla (R), Seoni, Theog all falling in upper parts of mid mountains recorded CSR above 950 (Fig. 1.1 C). These tahsils occupied only three percent of state's child population (Table 1.1).

Sub-normal CSR Tahsils (900-950)

Ten out of the total 46 tahsils recorded CSR ranging between 900 to 950 females per thousand males. These ten tahsils occupied twenty seven percent of the state's child population. These tahsils were located in the middle and western parts of the state comprising the parts of inner and outer Himalayas.

Critical CSR Tahsils (below 900)

There were maximum 29 tahsils out of the total 46 tahsils where urban CSR was below 850. These tahsils were distributed primarily in Kangra valley neighboring Punjab, Balh valley in the lower parts of mid mountains, Kunihar valley and Kiarda-dun valley in the south and south eastern parts of the state along with parts of Pabbar valley situated in the lower parts of inner Himalayas. These tahsils together constituted 70 percent of the state's population and were spread in almost whole of the state where urban population was found.

Compared to the state average (881), more than half of the total tahsils were below it. These tahsils were primarily located in the south and south eastern parts of the states falling in Paonta and Rohru Valley, in the north east comprising the parts of Kangra valley and in the central east parts falling in Swan and Balh valley (Fig. 1.2 C). Data reveals that these tahsils were concentrated in the middle and parts of lower Himachal Pradesh. These constituted 82 percent of the total urban child population of the state (Table 1.2)

Rural-Urban Gap in CSR in Himachal Pradesh, 2011

In Himachal Pradesh a gap of 31 females per thousand males was recorded between the rural and urban CSR and rural CSR of the state was more than urban CSR.

At tahsil level, minimum gap of one female per thousand male was recorded by the tahsils of Chamba falling in Chamba valley in and Amb falling in lower parts of the Shiwaliks, in their rural and urban CSR. Against this, maximum gap of 198 females per thousand males was recorded by the tahsil of Kumharsain falling in lower parts of the inner Himalayas. The tahsils of the state can be divided into following sub heads on the basis of gap recorded in rural and urban CSR:

Tahsils Recording Gap Below 50 points

20 tahsils of the state recorded a gap of 50 females per thousand males in their rural urban CSR. These tahsils were located in Kangra valley in north-western part, Balh valley located in the central part of the state comprising lower parts of mid mountains, parts of Paonta valley in south and Rohru valley in the north east, parts of Swan valley in western parts and some tahsils of Hamirpur district located in plains of Shiwaliks.

Data revealed that within this class there were the tahsils of Kangra, Dera Gopipur, Nurpur located in Kangra valley, Baddi in lower Shiwaliks, Amb in Swan valley neighboring Punjab, Nadaun in lower Shiwaliks neighboring Una district had critical rural and urban CSR and need attention as both were experiencing more or less same situation critical CSR.

Table 1.3

Himachal Pradesh: Rural Urban Difference in CSR, 2011

Sr.	District	Tahsils Recorded Difference in females per thousand males		
		Above 100	50-100	Below 50
1	Bilaspur	Ghumarwin	Naina Devi*	Bilaspur Sadar*
		Jhanduta		
2	Chamba	Dalhousie	-	Chamba
		Bhattiyat*		
3	Hamirpur	Barsar*	-	Tira Sujanpur*
				Nadaun
				Hamirpur*
4	Kangra	Jawalamukhi	Indora	Nurpur*
			Nagrota Bagwan	Dharamsala
			Palampur	Kangra* Dera Gopipur
5	Kinnaur	-	-	-
6	Kullu	Manali	Kullu	-
		Banjar		

7	Lahul & Spiti	-	-	-		
8	Mandi	Sarkaghat	-	Sundarnagar		
				Mandi		
				Jogindarnagar		
9	Shimla	Kumharsain	Rampur	Rohru*		
					Chaupal	
					Kotkhair	Seoni*
						Shimla (R)*
						Theog*
Jubbal						
10	Sirmaur	-	Rajgarh	Nahan		
				Paonta Sahib		
11	Solan	Kasauli	Solan	Arki*		
				Nalagarh*		
				Baddi		
12	Una	-	-	Amb*		
				Una*		

Source: Primary Census Abstract, Census of India, 2011. Office of the Registrar General & Census Commissioner, India.

Note: Tahsils with * denotes the tahsils where urban areas recorded CSR above than the rural areas as per Census of India, 2011.

Further, there were the tahsils of Sundarnagar in Balh valley, Dharamsala in Kangra valley, Nahan, Paonta Sahib in the Paonta valley where critical urban CSR was recorded and was 50 females per thousand males below their respective rural CSR. The tahsils of Tira Sujanpur, Hamirpur, Nalagarh, Bilaspur Sadar and Una located in lower parts of outer Himalayas recorded critical rural CSR than urban CSR of these areas with the difference of 50 females per thousand males (Table 1.3)

Tahsils Recording Gap between 50 to 100 points

Among the tahsils of the state, 12 tahsils recorded a gap of 50 to 100 females per thousand males in their rural and urban CSR. These tahsils were Nagrota Bagwan from Kangra valley, Indora from lower parts of Kangra valley neighboring Punjab, Kullu situated in Kullu valley, Theog from Rohru valley, Seoni, Jubbal, Shimla (R), Palampur from the lower parts of inner Himalayas, Solan from Kunihar valley, Naina Devi, Rajgarh from lower Shiwaliks, and Rampur from inner Himalayas.

Data reveals that Tahsil Indora located in the lower parts of Kangra valley recorded low rural and urban CSR both and urban CSR was hundred females per thousand males below rural CSR. Further the tahsils of Palampur, Solan, Rampur, Jubbal, Nagrota Bagwan, Rajgarh had critical urban CSR and were below their respective rural CSR by hundred females per thousand males. The rural CSR of Naina Devi tahsil was critical and was below hundred females per thousand males to it urban CSR.

Tahsils Recording Gap above 100 points

In the state there were 13 tahsils that recorded gap of above hundred females per thousand males in their CSR. These tahsils were Manali, Banjar located in Kullu valley,

Jhanduta, Kasauli, Barsar, Jawalamukhi, Ghumarwin located in lower Shiwalik plains, Dalhousie in Chamba valley, Chaupal, Sarkaghat, Bhattiyat located in lower parts of mid mountains, Kotkhai, and Kumharsain located in Rohru valley.

Jawalamukhi, Ghumarwin, Sarkaghat tahsils had critical rural as well as urban CSR and urban areas of these tahsils had gap above hundred females per thousand males compared to their rural CSR in these tahsils. Further, Jhanduta, Manali, Kasauli, Dalhousie, Chaupal, Banjar, Kotkhai and Kumharsain tahsils had critical urban CSR recording gap of above hundred females per thousand males to rural CSR. In Barsar tahsil the rural CSR was critical and recorded gap of above hundred females per thousand males compared to urban CSR.

Conclusions

From the foregoing discussion it is clear that in the state maximum proportion of normal CSR tahsils was concentrated in the mid mountains and great Himalayas. On the other hand majority of the critical CSR tahsils were from the Shiwalik plains neighboring Punjab and Haryana states. Further, the proportion of critical CSR tahsils was more than the proportion of normal CSR tahsils. The critical CSR tahsils constituted higher proportion of child population of the state than the normal CSR tahsils. Compared to the state average, maximum proportion of tahsils were below it and these tahsils constituted major proportion of child population of the state in rural and urban areas both. In the state maximum proportion of tahsils recorded a gap of below 50 points in their rural and urban CSR. Also, the proportion of low CSR tahsils was highest in this class. Fertility transition and increasing preference for small families in the state has resulted this situation to some extent. Moreover, the tahsils that are near to the Punjab and Haryana has significantly low CSR which can be related with the nearness to these state.

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