



## DECLINING SEX-RATIO: ROLE OF SOCIETY, TECHNOLOGY AND GOVERNMENT REGULATION IN HIMACHAL PRADESH

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### ABSTRACT

*Sex-ratio or sex-composition is an important demographic characteristic of the population or society. In India's population the deficit of women has been documented ever since the first decennial enumeration of people was conducted in the late 19<sup>th</sup> century, has been progressively increased. This deficit as evident from the sex-ratio of the population i.e. the number of women per 1000 men steadily declined from 972 (in 1901) to 940 in 2011 census. In India, an increase in the deficit of girl children in 0-6 age group, noted in the four decennial census, i.e. in 1981 (962 girls), in 1991 (945), in 2001 (927) and 914 girls in 2011, is an indicator of a strong possibility that traditional methods of neglect of female children are increasingly being replaced by not allowing female children to be born. In Himachal Pradesh juvenile sex-ratio declined from 971 in 1981 to 906 in 2011. The recent decline in the juvenile sex-ratio resulted from the ongoing pace of fertility transition, desired family size, practice of female infanticide, and rapid spread of reproductive technology such as ultrasound and amniocentesis tests for sex-determination followed by sex-selective abortions in many parts of the country. However, government is taking initiative to stop gender discrimination and preference of boys over girl children. In this direction, stringent law, awareness, gender sensitive approach and change in mindset would be the best way for immediate action. To point out on this problem, the main focus of this paper is on declining sex-ratio, role of society, and government regulation with special reference to Himachal Pradesh.*

**Keywords:** *Sex-ratio, Fertility-transition, Ultrasound, Sex-selective, Gender Discrimination.*

### Introduction

Sex-ratio or sex-composition is an important demographic characteristic of the population or society. In many of the developed and developing countries of the

world sex-composition is measured as the number of males per 100 females. But situation is entirely different in the case of India where sex-ratio is usually defined as the number of females per 1000 males.

Right from the beginning of the census operation, the sex ratio in India is adverse to women. In India's population, the deficit of women has been documented ever since the first decennial enumeration of people was conducted in the late 19<sup>th</sup> century, has progressively been increased. This deficit as evident from the sex-ratio of the population i.e. the number of women per 1000 men steadily declined from 972 in 1901 to 940 in 2011 census.

The sex-ratio has been recording declining trend throughout the previous century except during 1981 census in which a slight improvement is noticed by 934 females per 1000 males in context to the earlier trends. In this regard, some of the demographers are of the opinion that rise in sex-ratio may be due to the improvement brought in the status of women as mortality conditions leading to the higher expectancy of the life of females especially during the 70's decade. But this trend is upset by the result of the sex-ratio of 1991 census which has revealed a further decline of five points measuring it 929 females per 1000 males in India.

### **Objective of the Study**

The main objective of this paper is to examine the Child Sex Ratio (CSR) in 0-6 year's age group and overall sex ratio trends. The present paper focuses on declining patterns of child sex ratio in the state of Himachal Pradesh, and their spatial differences in the country with special attention to rural-urban inequalities in child sex ratio.

### **Data Source and Methodology**

The present study mainly concentrates on the child sex-ratio. In this study child sex-ratio is the number of girl children (in 0-6 years age group) to per 1000 male children. For the purpose of calculation of child sex-ratio and concerned indicators census data has been used. Secondary sources of data-like census reports, books, magazines, research articles and Internet sources are extensively used for the study purpose.

### **MTP Law and Female Foeticide: Increasing Abuse of Technology**

In order to meet the emerging challenges of sex-selective abortions, and illegally conducted medical termination of pregnancies, the Government of India passed the Pre-Natal Diagnostic Techniques (Regulation and Prevention of Misuse) Act in 1994. Though meant for the prevention of increasing menace of female foeticide, the implementation of the Act was quite slow. It was therefore, later amended in 2002 and became Pre-conception and Pre-natal Diagnostic Techniques (Prohibition of Sex Selection) Act 2002, banning gender selective foeticide. The Act, in actual was to detect genetic abnormalities or metabolic disorders or chromosomal abnormalities or certain congenital malformation or sex linked disorders and for the prevention of their misuse for sex determination leading to female foeticide and for matters connected therewith or incidental thereto (The Gazetteer of India, 2003).

Despite different provisions of the Act putting ban on female foeticide, lots of cases of misuse of the Act are coming in lime-light.

Section 22 of the Act prohibits advertisements regarding the conduct of pre-natal sex-determination and also prescribe punishment up to 3 years and fine may be extended to Rs. 10,000/- (Patnaik *et al.*, 2012)

For instance, in Patiala, about 50 female fetuses were found dumped in a well. More than a dozen embryos were also found dumped in a pond (The Hindu, 2006, 3<sup>rd</sup> Sept). In Aligarh, the state administration had to launch a crack down on all private maternity Nursing Homes, after suspecting a large number of illegal abortions. Even at Ladwa near Kurukshetra (Haryana) the Health Department team caught a doctor violating the provisions of PC/PNDT Act (The Hindustan Times, 2006, 23<sup>rd</sup> Aug). In Jaipur (Rajasthan), a group of health professionals and activists protested against the Centre and State government's failure to take action against 35 doctors in Rajasthan, Gujarat, Madhya Pradesh and Uttar Pradesh (The Hindu, 2006, 14<sup>th</sup> May). What to talk of incidents of illegal abortions and misuse of PNDT Act, even in Delhi, the capital of India, nearly a dozen health activists in a press conference indicated the state for its failure not to properly implement the PC/PNDT Act.

There are a large number of clinics performing illegal abortions. The ban on gender selection has had little effect and the medical mal-practices are flourishing in all parts of the country (The Hindustan Times,

2006, 24<sup>th</sup> March). The gender selective abortions not only resulted in the violation of women's rights including their reproductive rights but also amount to erosion of medical ethics, gender violence and heinous crime of female foeticide (The Hindu, 2006, 14<sup>th</sup> May). On 1<sup>st</sup> of May 2007, four clinics in the Shimla town (Himachal Pradesh) were raided by the team under the PC/PNDT Act and in two clinics irregularities in the records were found (Amar Ujjala, 2007, 2<sup>nd</sup> May). Furthermore, Sahara Television exposed 100 doctors involved in female foeticide in Rajasthan and adjacent States (The Times of India, 2007, 8<sup>th</sup> March).

### **Sex-Ratio & Child Sex-Ratio Patterns in India/States**

In India, the overall sex-ratio was 972 females per 1000 males in 1901, 964 in 1911, 955 in 1921, 950 in 1931 and 945 women per 1000 men in 1941, and declined by -8, -11, -5 and -5 points respectively (Agnihotri, 2000). In 1961, sex-ratio was 941 females and declined to 930 in 1971, 934 in 1981 and 927 in 1991 females per 1000 males. The overall sex-ratio improved by 6 and 7 points during the last two decades and increased to 933 females in 2001 and 940 in 2011 (Bhattacharya, 2012; Patel, 2007).

In India, some of the most prosperous states-Punjab, Haryana, Gujarat and Maharashtra have the worst sex-ratio. In many states and Union Territories, the sex-ratio plummeted starkly in between 1991 to 2001. In 1991, sex-ratio of Maharashtra, Gujarat and Rajasthan was recorded 934, 934 and 910 females, which declined to 922,

921, and 922 females per 1000 males in 2001. In these states, decline of -12, -13, and -12 points recorded respectively. Similarly, in Punjab the sex-ratio was 882 in 1991 and declined to 874 in 2001, in Haryana and Himachal Pradesh a similar decline has been noticed i.e., from 976 in 1991 to 970 females in 2001 (Visaria, 2010). This trend shows the alarming sign for the country as well as for the peaceful state of Himachal Pradesh also.

An increase in the deficit of girls children, noted in the four decennial census of 1981, 1991 and 2001 in 2011, is an indicator of a strong possibility that traditional methods of neglect of female children are increasingly being replaced by not allowing female children to be born. In the contiguous region from north to west of the country, the deficit of girls increased in between 1981 to 2001. Historically, in this reason the deficit of women in the total population is reported to be quite substantial. The recent decline in the juvenile sex-ratio resulted from the rapid spread of the ultrasound and amniocentesis tests for sex-determination in many parts of the country, followed by sex-selective abortions.

The deficit of women did not increase very much but the deficit of girls aged 0-6 years increased greatly in the country as whole as well as in all the states except Kerala in between 1991-2011. In India, the child sex-ratio (CSR, 0-6 years) declined by **48** points from 962 girls in 1981 to **914** in 2011. The child sex-ratio in 0-6 age group declined sharply in Punjab from 875 (in 1991) to 793 in 2001, in Haryana

from 879 to 820 and in Himachal from 951 to 897 girls per thousand boys in between 1991 to 2001. The decline of **82** points recorded in Punjab followed by Haryana 59 points and in Himachal 54 points respectively (Bose, 2001). Himachal is having the fourth rank after Punjab, Haryana, Chandigarh among all the States and Union Territories for lowest child sex-ratio in 2001 census.

In some parts of the country, the sex-ratio of 0-6 years girls age group has plunged to less than 800 per 1000boys. The deficit of girls in 0-6 age group, which was not at all evident in 1981 except in the traditionally and historically masculine states of Haryana and Punjab, appeared starkly (more than 50 points) in Himachal Pradesh, Gujarat and Maharashtra in 2001 (see below Table 1).

There were 49 districts in the country where in 0-6 age group the number of female children was less than 850 for every 1000 male children in 2001 census. Among these districts, majority of 38 districts were located in three northern and western states of Punjab, Haryana and Gujarat (Census of India, 2001). In Haryana, the data of a field survey (2001) in some blocks have shown low sex-ratio as 500 girls in 0-6 age group per 1000 boys. A report of Press Trust of India (PTI) reveals that increasing education is making people aware about sex-determination test and resulting in female foeticide. The rising consumerism and demand of dowry, inadequate knowledge of family planning and greed of doctors have compounded the incidents of female foeticide and infanticide (Puri, 1998).

**Table 1: Sex Ratio (FMR) all Ages and 0-6 Years age for Selected States (1981-2001)**

India/ States	All ages/years			Deficit in all Ages	Girls in 0-6 age group/years			Deficit in 0-6 age group/ years
	1981	1991	2001		1991-2001	1981	1991	
All India	935	927	933	-6	971	945	927	-18
<b>Himachal Pradesh</b>	973	976	970	-6	971	951	897	<b>-54</b>
Haryana	870	865	861	-4	902	879	820	<b>-59</b>
Punjab	879	882	874	-8	908	875	793	<b>-82</b>
Rajasthan	923	910	922	-12	954	916	909	-07
Gujarat	942	934	921	-13	947	928	878	-50
Maharashtra	937	934	922	-12	956	945	917	-28
Kerala	1038	1036	1058	+22	970	958	963	+05

*Source: Census of India 2001 Himachal Pradesh-2001-2011 & Visaria, 2010.*

The census data of 2011 for girl child witnessing that out of 28 states and 07 Union Territories in the country, 26 states and 05 UTs have observed decline in CSR, while it was 22 states and 04 UTs during 2001 (Raushan & Raushan, 2011).

But when we go through the data of 2011 census, among larger states Punjab, Haryana, Himachal Pradesh, Gujarat and Tamil Nadu are the states where child sex-ratio has increased and Kerala is the only state, which shows stability in this context. In Jammu & Kashmir, maximum decline of 82 points has been observed in between 2001 (i.e. 941 to 859) to 2011 census however, it is the only state where maximum growth has been noticed in 2011. But when we go through the pattern of 2011 census, the lowest child sex-ratio (CSR) has been observed in the state of Haryana i.e. 830 girls, in Punjab 846, and in J&K 859 girls. However, (in 2011) in Punjab CSR increases up to 846 from 798 in 2001, in Haryana up to 830 from 819 in 2001 and in

Himachal Pradesh it reaches up to 906 in 2011 from 896 in 2001, and recorded an increase of 48 points in Punjab, 11 points in Haryana and 10 points in Himachal Pradesh in 2011 (Census, 2011) and also (see Table 2).

The census data of 2011, reflects that a significant increase has been recorded in child sex-ratio in the northern states of Punjab, Haryana and in Himachal Pradesh as compared to 2001 census data, which indicates that Pre-conception and Pre-natal Diagnostic Techniques (Prohibition of Sex Selection) Act 2002, has significant impact in curbing the problem of sex-selective abortion/female foeticide in these states. Whereas, the CSR declined in the number of other states which includes Rajasthan, Uttar Pradesh, Bihar, Maharashtra, Andhra Pradesh. It shows that PC/PNDT Act 2002 was not strictly implemented in these states. Kerala is the only exception where CSR is stable in between 2001-2011. But the skewed sex-ratio in favor of boys is disappo-

**Table 2: Child Sex-Ratio (0-6 age group) in Major States of India, 1961-2011**

Sl. No.	India/States	1961	1971	1981	1991	2001	2011
1	<b>India</b>	976	964	962	945	927	914-
2	Jammu & Kashmir	965	959	964	NA	941	859-
<b>3</b>	<b>Himachal Pradesh</b>	-	<b>981</b>	<b>971</b>	<b>951</b>	<b>896</b>	<b>906+</b>
4	Punjab	906	899	908	875	798	846+
5	Haryana	-	899	902	879	819	830+
6	Rajasthan	951	932	954	916	909	883-
7	Uttar Pradesh	946	923	935	927	916	899-
8	Bihar	988	964	981	953	942	933-
9	Assam	1021	1002	*	975	965	957-
10	West Bengal	1008	1010	981	967	960	950-
11	Orissa	1035	1020	995	967	953	934-
12	Madhya Pradesh	982	976	977	941	932	912-
13	Gujarat	955	946	947	928	883	886+
14	Maharashtra	978	972	956	946	913	883-
15	Andhra Pradesh	1002	990	992	975	961	943-
161	Karnataka	991	978	975	960	946	943-
17	Kerala	972	978	970	958	960	960
18	Tamil Nadu	985	1088	967	948	942	946+

*Source: Census of India 1991, Series-I-India Part-IVA-C Social Cultural Tables  
Family Welfare Programme Year Book: Himachal Pradesh, India, 1991 and 2001*

*\*Census was not conducted*

*Census of India 2001, & Census of India 2011*

-inting feature for the country like India. This trend is alarming for the country and need urgent attention.

### **Rural-Urban Differential in Child Sex-Ratio in India, 1991-2011**

The better way to understand the differential and magnitude of declining sex ratio, by breakdown of this demographic characteristic, through residence (in terms of rural-urban) will make clear spatial inequality in child sex-ratio. Most of the time migration mainly from rural to urban is mentioned for less number of females as compared to males, because of the possibility of double counting of male migrant at both place of origin and at place of destination (Raushan, 2012). But this

does not happen in case of child, so there are other factors responsible for adverse child sex-ratio.

In India, in urban areas CSR has declined by 33 points from 935 (in 1991) to 902 in 2011, whereas it has declined by 29 points in rural areas from 948 (in 1991) to 919 in 2011 census. It is very much clear that during 2001-11 child sex-ratio is higher in rural areas, but rate of decline is also observed low in urban areas, however this decline was more in urban areas in 2001. The CSR declined in rural areas from 934 in 2001 to 919 in 2011, this decline was 15 points for rural India and in urban areas only of 04 points from 906 (in 2001) to 902 in (2011). In rural India, this increase has been observed of 05 points (i.e. 919 rural) more

than the national average (i.e. 914), whereas in urban India, decrease is observed of 12 points (i.e. 902 urban) less than the national average of 914 in 2011 census (Census of India, 2011).

This trend reflects that more easily availability of medical facilities and sex-determination technologies, the rate of illegal abortions has increased in urban areas as compared to rural areas. The another factors like higher level of education, income, living standard, development and awareness make people to opt for sex-selective abortion. The lowest CSR has been observed in Haryana 830 and 846 in Punjab, although there is an increase of 55 points in Punjab in 2001 to 2011. During the last decade (2001-2011) Punjab, Chandigarh Haryana and Himachal Pradesh in north and north-western region have evolved like the area of increasing child sex-ratio. The rural-urban differential in child sex-ratio indicates that in urban areas due to higher level of education, income and awareness people are violating the regulations of Pre-conception and Pre-natal Diagnostic Techniques (Prohibition of Sex-Selection) Act 2002, due to the nexus between people, medical practitioners and health workers, consequently this law failed in the effective implementation and curving the problem of sex-selective abortions/female foeticide. It shows that PC/PNDT Act 2002, was not strictly implemented in the urban areas.

### **Trends in Child Sex-Ratio in Himachal Pradesh/Districts**

The state ranks 30<sup>th</sup> position for child sex-ratio in 2001 census as against 22<sup>nd</sup> position in 1991 census among all States and

Union Territories of India. Himachal Pradesh is passing through demographic transition, marked by fairly high fertility and moderate mortality. The total population of the state is 68,56,509 and of it males population is 34,73,892 and female population is 33,82,617 according to 2011 census. The total child population in Himachal Pradesh, in 0-6 years age group is 7,63,864, persons, comprising 4,00,681 males and 3,63,183 females as per 2011 census, the deficit of girl child is **37,498** in 2011. In the state in 1981, the proportion of child population in 0-6 age group was 18.7 per cent of the total population, which decreased to 16.3 per cent in 1991, 13.0 per cent in 2001 and **11.14** in **2011** census.

The figures of 1981, 1991 and 2001 census on CSR of 0-6 age group revealed that the total CSR has sharply declined from 971 females in 1981 to 897 females in 2001 for the state, showing net decline of 75 points, but increases up to 906(only by 10 points) in 2011. The fall in CSR is steeper in all areas during 1991 to 2001 as compared to 1981-1991 (Census of India, 2001).

This trend indicates that the desired family size is decreasing with preference for male children or people want to have small family with preference for male children and consequently to achieve this objective they prefer to have sex-determination test and following with sex-selective abortions in Himachal Pradesh.

Himachal Pradesh is known as 'Dev Bhoomi' (Abode of Gods) contrary to what would be expected from such a land and people are facing the challenge of declining child sex-ratio. Himachal is having the

fourth rank after Punjab, Haryana, Chandigarh among all the States and Union Territories for lowest child sex-ratio in 2001. The state's 10 out of 12 districts have recorded declined child sex-ratio. The tribal district of Lahaul and Spiti is the only exception which has shown an improvement of 35 points from 951 in 1991 to 986 in 2001 (Negi, 2006). Kangra district is the worst affected, where the child sex-ratio has declined from 939 in 1991 to 836 in 2001. A village named Lambagaon in Thural sub-tehsil, has recorded the lowest child sex-ratio i.e. 738 females per thousand males in 2001. In this way, Kangra has left behind even Fatehgarh Sahib of Punjab where the sex-ratio in 2001 was 754 females per thousand males. The five districts of Himachal Pradesh identified as worst affected include: Solan, Mandi, Hamirpur, Una and Kangra in 2001. The child sex-ratio in these districts has shown a sharp decline

of more than 50 points i.e. Solan 951 during the 1991-2001 period to 900, Mandi 968 to 918, Hamirpur 938 to 850, Una 923 to 883 and Kangra 939 to 836 (Chambial, 2006; see below Table 3).

The child sex-ratio (CSR) increases in the state of Himachal Pradesh up to 906 in 2011 from 896 in 2001, as well as among some districts which include: Kangra 873 and Bilaspur 893, in Hamirpur 881, Kullu 962 and Lahul & Spiti 1,013 girls between 2001-2011. This increase is 10 points for the state, in Kangra by 37 points followed by Hamirpur 31 points, in Bilaspur 11, Kullu 02 points and for Lahul & Spiti 27 points respectively. The reason cited for this trend is the concept of single or two children adopted voluntarily by the couples that too with preference for male child, appears to have widened the gap between males and females in 0-6 age group in the state (Census of India, 2001).

**Table 3: Child Sex-Ratio in Himachal Pradesh/Districts in 0-6 years age group, 1991-2011**

Sl. No.	State/Districts	1991	2001	Deficit of Girls 1991-2001	2011
	<b>Himachal Pradesh</b>	<b>951</b>	<b>896</b>	<b>-55</b>	<b>906+</b>
1.	Mandi	968	918	-50	913
2.	Solan	951	900	-51	899
3.	Hamirpur	938	850	-74	881+
4.	Una	923	837	- 84	870+
5.	Kangra	939	836	- <b>103</b>	<b>873+</b>
6.	Bilaspur	923	882	-41	893+
7.	Sirmaur	973	934	-39	931
8.	Shimla	958	929	-29	922
9.	Chamba	965	955	- 10	950
10.	Kullu	966	960	-6	962
11.	Lahaul & Spiti	951	986	+35	1013+
12.	Kinnaur	959	979	+ 21	953

*Source: Census of India, 2001-2011 Himachal Pradesh*

## **Conclusion**

In the end, the above discussion suggests that census data of 2011 reflects that a significant increase has been recorded in child sex-ratio in the northern states of Punjab, Haryana and Himachal Pradesh as compared to 2001 census data. But the child sex-ratio (CSR) keep on declining in the other states which includes Rajasthan, Uttar Pradesh, Bihar, Maharashtra, Andhra Pradesh and Kerala is the only exception in between 2001-2011. It shows that PC/PNDT Act 2002 was not strictly implemented in these states with low CSR trends.

The rural-urban comparison of CSR indicates that in urban areas the rate of decline is higher in urban areas i.e. 33 points (935 in 1991) to (919 in 2011) (as compared to rural areas by 29 points) per thousand boys in India. It is very much clear that during 2001-11 child sex-ratios is higher in rural areas, but rate of decline is also observed low in urban areas, however this decline was more in urban areas in 2001. The urban areas make it clear that declining trend of CSR is very closely associated with more easily availability of medical facilities and sex-determination technologies.

In Himachal Pradesh, as far as the situation regarding CSR is concerned, the five districts of the state i.e. (Solan, Mandi, Hamirpur, Una and Kangra) falls in the category of worst affected child sex-ratio in 2001 and these districts have recorded a steep decline of more than 50 points. But in 2011, CSR recorded a significant increase in some of these districts i.e. in Kangra (increased by 37 points), from 836 in 2001 up to 873 in 2011, followed by Una (33

points), 837 in 2001 to 870 in 2011, Hamirpur (31 points) 850 in 2001 to 881 in 2011, and the tribal district of Lahaul & Spiti recorded an increase of 27 points from 986 in 2001 to 1013 in 2011 census. It shows that in Himachal Pradesh the areas which were worst affected in 2001, improved CSR in 2011, due to the strict implementation of PC/PNDT Act, 2002. The tribal district of Lahaul and Spiti is the only exception where child sex-ratio didn't declined, the reason may be the matriarchal set up of the tribal society, low level of education and inaccessible health facilities etc. The socio-economic and cultural factors such as- higher level of education, income and standard of living, son preference, dowry system and violence against women also pressurize parents to go for sex-selective abortions and consequently leading to imbalance in child sex-ratio.

This trend further indicates that due to the nexus between medical professionals, health workers and people, this Act failed in preventing the menace of female feticide not only in the hilly state of Himachal Pradesh but also in the other states like Punjab, Haryana, Rajasthan, Uttar Pradesh, Bihar, Maharashtra, Andhra Pradesh etc. It seems that stringent implementation of the law is required in urban areas to curve this menace of sex-selective abortion. The need of the hour is that government should emphasize more and more programmes, policies which actively improve the status of women and attitude towards especially the female children. At the end it can be concluded that the existence of son preference at an alarmingly high rate in our society is the root cause of imbalance in child sex-ratio.

†**Note:** Under section 4 of the principal Act, no pre-natal diagnostic technique shall be used or conducted unless the person to do so is satisfied for reasons to be recorded in writing that may the following conditions are to be fulfilled, namely:

- (i) Age of the pregnant women is above 35 years;
- (ii) The pregnant women has undergone two or more spontaneous abortions or fetal loss;
- (iii) The pregnant woman has been exposed to potentially teratogenic agent such as drugs, radiation, infection or chemicals;
- (iv) The pregnant women or her spouse has a family history of mental retardation or physical deformities such as spasticity or any other genetic disease;
- (v) Any other condition as may be specified by the Board (The Gazetteer of India, 2003).

Following are the offences under this Act:

- Under section 3 non-registrations.
- Under section 4 conduct of pre-natal diagnostic technique.
- Under section 5 communication of sex of fetus either verbal or through signal.
- Under section 6 determination of sex.
- Under section 22 advertisement regarding sex-selection.
- Under section 29 not maintaining records.

Section 22 of the Act prohibits advertisements regarding the conduct of pre-

natal determination of the sex and also prescribe punishment up to 3 years and fine may be extended to Rs. 10,000/- (Patnaik *et al.*, 2012).

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