Chapter-8

Summary and Conclusion
Sex composition refers to the balance between males and females in any population. Sex composition not only affects the demographic processes, but also determines the socioeconomic relationship within a community. The balance between males and females in the total population as well in various age groups can have considerable impact on social and economic situation both in the present as well as future context. Therefore, an analysis of the same becomes a very important tool for various types of planning.

Sex composition is expressed in terms of a ratio between the numerical strengths of males and females in the total population. The most common measure, which is used to represent the sex composition of a population, is sex ratio. Sex ratio in the Indian context may be defined as the 'number of females per 1000 males'. But, sex ratio at birth is defined as 'number of males per 100 females' at the time of birth. Thus, sex ratio can be calculated for a population as a whole or for different age groups, or for different caste or social groups, or for rural and urban areas separately. A low and declining sex ratio is often viewed as a threat to social as well as family stability.

Sex ratio of a population at any given point of time depends upon sex ratio at birth, the sex differentials in mortality and sex ratio among net migrants. In a country like India, differentials in the coverage of males and females in the census counting is also said to have caused imbalances in sex ratio. However, with improvement in the quality of census data the contribution of this factor has declined considerably.
Indian population is found to have recorded a secular decline in sex ratio almost throughout the last century. A low and declining sex ratio has been a matter of great concern for researches planners and policy makers ever since the beginning of census counting in the country. Thus, in the backdrop of a continuous decline, a rise by six points in sex ratio in 2001 over 1991 has provided some relief to scholars. But, the decade has also witnessed a decline in child sex ratio by as much as eighteen points in the age group 0-6 years. This has attracted the attention of researchers, social activists and media alike. Much of the decline in sex ratio in India in the past was a result of higher death rates among females as compared to males in all ages particularly during childhood and childbearing age groups. Ours is a male dominated patriarchal society with a general neglect of females. However during the last few decades the mortality conditions among females in India has considerably improved. There has been a corresponding improvement in life expectancy of female’s vis-à-vis males. Despite this, the female-male ratio during the 1980s underwent a decline by five points. The demographers, researchers social scientists had otherwise expected an improvement in the ratio given the strides made on the socio-economic front and the improvement made with the quality of census data.

The scholars are of the opinion that the current decline in sex ratio is mainly due to further increase in the preponderance of male babies at birth. This is attributed to widespread use of medical technology for determination of the sex of the baby in the mother’s womb. As we know our society is characterized by a strong preference for male babies. Our social customs and traditions have strongly favoured male babies. A son is also considered as a source of income both as an earner and also as one who brings wealth to his family as dowry. Female babies, on the other hand are considered as burden. On the basis of test if the foetus is detected to be female the parents go for the termination of the pregnancy. This is termed as female foeticide. Earlier the
parents used to leave their newly born female babies exposed which used to result in death. The practice is commonly termed as female infanticide. The practice of female infanticide though still reported from some parts, has given way to female foeticide. Several studies have confirmed this particularly in the northern and northwestern parts of the country, and in the metropolitan cities.

An examination of the regional pattern of sex composition of population in India shows that the northwestern states including Punjab and Haryana have one of the largest deficits of female in their population. Haryana occupies one of the lowest positions not only in India, but also perhaps in the entire world in terms of the balance between male and female in the population in the country. Furthermore, Haryana reports yet another decline in sex ratio in 2001 over 1991 in spite of an improvement in the same at the aggregate level in the country. It is also worth noting that all the districts in the state report sex ratio that is lower than the all India average in 2001. Child sex ratio has declined in all the 19 districts of the state. It has strongly been argued that the recent decline in sex ratio particularly among children can be the result of further deterioration of sex ratio at birth as a result of female foeticide.

The present study is an attempt to examine the spatial temporal changes in sex composition of population in rural Haryana using district and tehsil level data. The time period selected for the study covers two decades from 1981-2001. A particular emphasis has been on the child sex ratio in the age group 0-6 years. It may be noted that most of the studies on sex composition of population are confined to the aggregate level scenario taking total population into account. However, the factor affecting the balance between males and females in the population differ markedly from one social group to another. The status of females varies from one social group to another. Similarly, migration plays a very important role in affecting sex ratio at regional level. Migration is a sex selective phenomenon particularly when induced by
economic reasons. Thus, the regional variation in sex ratio of the total population does not reveal the spatial variation in gender inequality. Sex ratio among children in not affected by population migration. However, there has not been any effort on the part of researcher in the field of geography to examine the spatial dimension of gender relations using data on child sex ratio. In the present study, therefore, an attempt has been made to examine the spatial variation in sex composition of population at the aggregate level as well as in the different social segment. Attempt was also made to examine the socio economic correlates of sex composition of population. Although, initial discussion pertains to the overall scenario in the state, the main analysis was mainly confined to the rural area. Further special focus was laid on the 0-6 year age group.

Haryana was carved out of Punjab on 1st November, 1966. It was the most backward area of the then Punjab, where geographical conditions were extremely tough. Yamuna is the only Perennial River and rainfall is extremely erratic in nature. There are dry spells of substantial duration even during the monsoon season, and vast areas remain water deficient particularly in the western and southern Haryana. The climate of Haryana is marked by hot summer, cold winter and low rainfall. Nevertheless, Haryana has been the cradle of the Harappan and Aryan Culture. The Rigveda, the Manu smiriti, the Mahabharata and the Gita were written here. Haryana became a battleground for invaders of Delhi. For 2000 years people in Haryana had to fight against invaders, looters and foreign rules. In this process, Haryana became a backward, poor, and a land of largely illiterate people. The status of women, which was one of the highest in time of Rigveda, became miserably low thereafter. Seclusion of women, purdah early marriage, female infanticide, illiterately and polyandry have prevailed since then. Women work more than
men, but their low status has led to strong son preference, (utmost desire to get son) which, in turn, has led to the practice of female foeticide.

The last fifty years has brought a remarkable change on economic front. Green revolution, increased availability of electricity, improvement in road transport network, spread of tubewells and/ canal irrigation, industrialization, white revolution etc. have all changed the situation drastically. But the castes-ridden rural society, overwhelmingly under the control of panchayats has not changed the social custom and cultural value. The rural women is still under veil, the low sex ratio, lower status of women, polyandry, bride purchase, wife beating, female foeticide are part and parcel of the culture of rural Haryana.

In terms of sex ratio, Haryana not only occupies one of the lowest positions in the country, but has also witnessed a constant decline in the same during the last two decades. An abnormally low sex ratio in the state has usually been attributed to a relatively large excess of males over females at birth, and higher death rate among females than males in all age group. Another distinguishing feature of sex composition of Haryana’s population is its rural-urban differentials. In the wake of sex selective migration from rural to urban areas, the urban centres, generally report a larger deficit of females than that in the countryside. However, at least on three occasions rural areas in the state have exhibited lower female-male ratio than the urban areas. Haryana has a deficit of nearly 1.58 million females in its population in 2001. Sex ratio in juvenile age groups has recorded a drastic decline during 1961-2001. It has declined by 120 points in 0-4 year age group and 39 points in 5-9 years age group. On the whole, the 0-14 years age group has witnessed a decline by 54 points during 1961-2001. The dramatic fall in sex ratio in 0-4 years age group, particularly after 1991 is attributed to a drastic increase in male preponderance at birth due to a widespread use of the latest technology to eliminate female foetuses. Sex ratio among children under age 15 has recorded a systematic
decline between 1961 and 2001, except on one occasion i.e. in 1981. As contrary to the trend among children, the sex ratio among adult population aged ‘15 and above’ has experienced a systematic improvement overtime. In adult age groups sex ratio has increased by 4 points in 10-14 years aged group, 33 points in 15 + age group, +116 points in 30+ age groups and +312 points in 55+ age group during 1961-2001. On the basis of past experience, it can be inferred that overall sex ratio in Haryana remained very low because of low sex ratio in the adult population. This could be attributed to a very high rate of mortality among adult females, particularly in reproductive age span. Whenever the determinants of sex differentials in adult mortality were harsh on women, sex ratio used to dip down and vice-versa. As contrary to this the present day low and declining overall sex ratio in the state owes much to a rapid depletion of sex ratio among children. Hence the most disturbing feature with respect to sex composition of Haryana’s population that emerges is a rapid decline in sex ratio among children during the recent past. Trends in sex ratio in the age group 0-6 years during the last few decades have, therefore, occupied the centrestage of discussion. The pace of decline in child sex ratio in Haryana has been even more conspicuous since 1981. Between 1981 and 2001, child sex ratio in the state has gone down from 902 to 819, a decline by 83 points. Further the decline has been more rapid in the latter decade, and demographers have attributed this to increase in male-female ratio at birth. As per the ‘Sample Registration System’ sex ratio at birth (SRB) in Haryana during the period 1987-90 to 1996-98, has risen from 115.0 to 123.3. Such a faster growth in male preponderance at birth in undoubtedly an indicative of the prevalence of the practice of female foeticide in the state. It is also true that with improvement in health care facilities, the loss of male foetuses have undergone decline leading, in part, to a rise in masculinity at birth.
The spatial pattern in sex ratio of total population presents a wide range of regional variation in the magnitude of the deficit of females across districts. The districts in the central parts of the state (adjacent to the National Capital Territory of Delhi in the east), in general, report a much more adverse sex ratio than elsewhere in the state. As against this, the southern part of the state is marked with relatively more favourable sex ratio.

The temporal change in sex ratio during 1981 and 2001 indicates that out of total 19 districts as many as 13 districts recorded a decline in sex ratio. The six districts in order of the magnitude of gain in sex ratio are, Faridabad, Karnal, Fatehabad, Yamuna Nagar, Kaithal and Sirsa. While the ones with some of the largest decline are Jhajjar, Ambala, Sonepat and Rohtak.

The rural sex ratio in Haryana has declined by 10 points. The southwestern parts of Haryana, mainly the districts of Mahendragarh, Rewari and Bhiwani reported much favourable sex ratio which tended to decrease towards east. The lowest value of sex ratio is observed in the districts adjacent to the ‘National Capital Territory’ of Delhi and near the state capital Chandigarh. Only 5 districts have recorded gain in sex ratio and they are Karnal, Faridabad, Yamuna Nagar, Kaithal and Fatehabad. Other 14 districts have recorded decline in sex ratio, the largest decline recorded in Panchakula, Jhajjar, Sonepat and Bhiwani.

The growth rate of urban population is almost twice as that the growth rate of rural population. Migration has been an important component of urban growth in the state. Sex ratio in the urban population has undergone a fluctuating trend. After an improvement by 19 points during 1981 and 1991, it registered a massive decline of 21 points during 1991 and 2001. The areas in close vicinity of the National Capital Territory of Delhi and the state Capital Chandigarh are marked with a decline in sex ratio during 1981-2001. Some of
the largest depletions in sex ratio in urban population were witnessed in Ambala, Panipat and Jhajjar. Seven districts reported gain in sex ratio in urban population, and the main gainer districts are Panchkula, Faridabad, Sirsa and Yamuna Nager.

The present study is exclusively concerned with trends and patterns in sex ratio in rural areas of the state. Therefore, we have examined trends in sex ratio among scheduled castes and non-scheduled castes, as well as in broad age groups over the period 1981 to 2001 in rural Haryana. The share of scheduled castes in rural population has increased from 20.7 percent in 1981 to 21.4 percent in 2001. The scheduled castes reported lower sex ratio than the general population till 1991. But in 1990s, the sex ratio among scheduled caste increased by 10 points. During 1991-2001, the scheduled castes are reported to have witnessed significant improvement in the sex ratio all over the state barring only few districts. The southern and western part of Haryana reports a generally better sex ratio among scheduled castes.

The share of general population in the rural areas has corresponding declined from 79.3 percent in 1981 to 78.6 percent in 2001. The sex ratio of the general population declined from 878 to 865 during the 1981-1991, and then it remained 865 till 2001. The south and southwestern districts report higher sex ratio and as one moves towards central plain the values decline abruptly.

The districts adjacent to the national capital territory of Delhi, in the east, and Chandigarh, in the north are marked with adverse sex ratio among general castes population in rural Haryana. The general population has witnessed gain in sex ratio only is five district namely Karnal, Kaithal, Faridabad, Yamuna Nagar and Fatehabad. In the rest of the districts, sex ratio has witnessed further deteriorations and some of the prominent are Panchkula, Jhajjar, Sonepat, Rewari, Bhiwani, and Rohtak. A comparison of sex ratio
among schedule castes and non-scheduled castes in rural areas during the period 1981-2001 reveal some interesting features. At the time of 1981 census, there were 16 districts where sex ratio of general population was higher than that of the scheduled caste population. By 2001, the number of such districts has come down to 8. Thus, the recent decline in sex ratio in rural Haryana can, therefore, can be attributed to deterioration in sex ratio among general population mainly.

Juvenile sex ration in rural Haryana has declined from 881 in 1981 to 84 in 2001 i.e. a decline of 34 points in just 20 years. The decline in sex ratio is so pervasive and widespread that all the districts in 2001 report a lower level than that prevailing at the time of 1981 census. The decline in sex ratio in this age group thus indicated excess of female deaths apart from a growing masculinity of sex ratio at birth.

The balance between male and female adults largely depends upon sex differential in mortality and migration. Sex ratio in the age group 15-59 years in the rural areas had reportedly declined 897 in 1981 to 853 in 1991 and then risen to 864 in 2001. A decline in adult sex ratio by 44 points during 1981 and 1991 can be partly attributed to migration from Punjab. In 1991 and 2001 the sex ratio improved by 11 points, owing mainly to decline in the sex differentials in mortality in adult population.

Sex ratio of senile population i.e. ‘60 years and above’, increased from 702 to 982 during 1981-2001. In other words, there was a gain of as much as 280 points in the sex ratio among people aged 60+ in the rural areas of the state. This drastic increase should be viewed in the light of improvement in health care facilities, improvement in enumeration of widows and other old women, and old age pension scheme launched in 1987-88 in Haryana.
Child sex ratio (0-6 years) is not affected by population redistribution. Thus, an analysis of the same provides a very good idea about prevailing gender inequality in our society. It is remarkable to note that sex ratio among children aged 0-6 years in rural Haryana has declined at an alarming pace during the recent past. The child sex ratio has gone down from 899 to 823 during 1981 and 2001, i.e. a decline of 76 points. Remarkably well over 70 percent of the decline has been registered only between 1991 and 2001. In the wake of strong preference for sons and with increased availability of modern techniques for identification of the sex of the baby in mother womb, parents are now able not only to choose ideal size of the family but also the sex of their children. As a result, total fertility rate in the state has undergone sharp decline from time in the late 1980s. All these could be seen in decline in the share of children in the population. The percentage share of children in the age group of 0-6 years in rural Haryana has declined from 20.0 percent to 16.2 percent during 1981-2001. This is indeed a very sharp decline. The maximum decline is noticed in the district of Ambala, Kurukshetra, Jhajjar and Sonepat. It is noteworthy that child sex ratio has declined in all the districts during 1981 and 2001. It is remarkable to note that the southern and southwestern parts of the state that otherwise appear somewhat friendly to women have also experienced decline in child sex ratio during the period.

The main cause of decline in child sex ratio under age of 7 years during the recent past is growing masculinity at birth. Census data from Fertility Tables also provide indirect information on sex ratio at birth. In Haryana the rate of increase in masculinity at birth, on the basis of census data, appears to have been almost three times that of the increase in India as a whole. Sex ratio at birth with reference to children ever born to ever-married women in rural Haryana is found to have increased from 110 in 1981 to 112 in 1991 and 114 in 2001. It is alarmingly higher than the average that should range from 103 to
Evidences indicate a greater prevalence of sex selective abortion at higher order birth. A greater preponderance of males in, ‘Current Fertility’ than in ‘Life time fertility’ of mother aged up to 25 years is not in unusual. The northern parts of the state seem to have witnessed much faster increase in male preponderance at birth. The districts of Ambala, Yamuna Nagar, Kurukshestra and Kaithal in north, Sonepat and Jhajjar in the central Haryana and Mahendragarh, Rewari in the South exhibits very high sex ratio at birth.

For a better understanding of the process of decline in sex ratio in rural Haryana, the socio-demographic and economic correlates of the sex composition of population has been examined in the study. Of the 37 variables selected for the purpose, 9 represented the socio-demographic aspects, while 12 were on agricultural efficiency, 5 on infrastructure facilities, 4 on urbanization and industrialization, and finally, 7 were on women’s development. The values of correlation coefficients were worked out for determining the nature of correlate. The technique of ‘Principal of component’ analyses was also used to work out the composite scores of development under the headings of agricultural efficiency, infrastructure facilities, urbanization and industrialization, and women development. The correlation coefficients were then worked out to examine the relationship between overall levels of development and sex composition of population. In addition, simple linear regression analysis between child sex ratio and sex ratio at birth was undertaken to examine the contribution of sex ratio at birth in the total variation of child sex ratio over the space. The residuals were also worked out and mapped to look into the influence of other determinants of child sex ratio.

It has been found that the spatial patterns and temporal change in sex ratio during the 1980s and 1990s were markedly different from one another. It is also found that all age sex ratio and child sex ratio exhibited positive and significant association only up to 1991. Thereafter the association between the
two has become negative. This means that the main determinants of all age sex ratio as well as child sex ratio were more or less common till the 1980s. As child sex ratio come to be governed more and more by sex ratio at birth, while sex differential in mortality and male dominated migration dominated all age sex ratio, the spatial variation of all age sex ratio and child sex ratio became independent of one another. The sex ratio at birth became an increasingly more important determinant of child sex ratio.

The study also indicates a significant and positive association between child sex ratio and rate of population growth. The recent decline in child sex ratio is mainly due to a widespread practice of female foeticide. It is true that a widespread prevalence of female foeticide not only leads to greater deficit of females, but also brings down birth rate, which alternatively gets reflected is a slow growth in population. This is further validated in a significant and negative association between decadal growth in population and sex ratio at birth, where the latter refers to the number of male births per 100 female births. Thus, the areas characterized by greater preponderance of male babies at birth are also marked with a slower growth in population. It is indeed shocking to note that there exists a negative and significant association between overall literacy and child sex ratio in rural Haryana. It is apparent that the incidence of son preference is more conspicuous among people with high literacy rate. The correlates of literacy with sex ratio at birth, particularly with reference to current fertility also validate the argument that the practice of female foeticide is more prevalent in people with a high rate of literacy. The proportion of scheduled castes in the population does not seem to have any bearing on the sex composition of population in rural Haryana.

The economic correlates of sex composition of population provide some interesting insight. The overall or all age sex ratio is higher in districts with greater share of geographic area under cultivation. However, child sex ratio is
It is remarkable to note that sex ratio at birth among children born to ever married women aged 'below 25 years' also indicates greater preponderance of male babies at birth in areas where land availability is more. All age sex ratio as well as child sex ratio exhibits negative association with all the indicators on modern inputs of farming. The magnitude of deterioration in child sex ratio during 1991-2001 reveals positive association with all the inputs. Sex ratio at birth also has positive association with modern inputs of farming thus indicating greater preponderance of male babies at birth in agriculturally developed areas. Cultivator-labourer ratio is positively associated with both all age sex ratio and child sex ratio, and the correlation coefficient is significant. Proportion of labourers in the agricultural work force is negatively related with all age sex ratio and child sex ratio. The measures of sex ratio at birth show positive association with proportion of agricultural labourers. The two indicators included in the study on degree of commercialization of farming viz. area under commercial crops and percentage contribution of non-food crops in gross value of agricultural output are positively associated with sex ratio. The former, being significantly correlated with all age sex ratio, and, the latter bearing significant correlation with child sex ratio.

What is more significant to note here is the fact that land productivity measured in terms of gross value of agricultural output per hectare of net sown area, is negatively associated with both all age sex ratio and child sex ratio. In other words, high productivity areas are characterized by greater deficit of females in the population both at the aggregate level on well as among children. The same is exhibited in the labour productivity also. For the purpose of establishing interrelation between sex components and overall levels of agriculture development, composite were worked out with the help of principle component analysis. For the purpose only one component was
extracted and this represents an intensive use of land and other inputs and resultantly high land productivity. This characteristic feature is more marked in the northern districts of Karnal, Kaithal, Panipat, Sonepat, Kurukshetra, and Yamuna Nagar as well as in Fatehabad and Sirsa in the west. The correlation coefficient with the component scores reveals a negative association with child sex ratio. Furthermore, it is marked with a very high sex ratio at birth. This only shows the nexus between prosperity level and the practice of female foeticide.

On the basis of the values of correlation coefficient between the indicators of sex components and the select indicators on basic infrastructure facilities, it is found that only road density and number of agricultural markets per unit area of NSA exhibit meaningful correlation with sex composition of population. Thus, the areas with better road density and agricultural markets are characterized by low all age sex ratio as well as a faster decline in all age sex ratio during 1990s. The first principal component extracted for overall level of infrastructure facilities is marked with a very high road density and larger number of agricultural markets per hectare of NSA. A low level of health care facilities and family welfare centres is also part of this component. The district of Panckkula, Ambala, Panipat, Kurukshetra, Kaithal, and Yamuna Nagar in the north and Gurgoan and Faridabad in the south are strongly associated with this component. It appears that the areas associated with this component have witnessed inmigration of population that is always sex selective as a result of which all age sex ratio has undergone a rapid decline.

Urbanized and industrialized areas generally report a high proportion of migrants and a resultant low all age sex ratio. An attempt has been made to examine the nature of inter correlation between sex composition of population and levels of urbanization and industrial development in the districts. All age sex ratio in the rural areas exhibits a strong and negative association with the
level of urbanization. Even the magnitude of decline in all age sex ratio has been more rapid in the districts that are more urbanized. However child sex ratio and sex ratio at birth do not exhibit any meaningful association with levels of urbanization. On the other hand, the level of industrial development appears to be associated with high child sex ratio and less masculine sex ratio at birth. The decline in child sex ratio is low in the industrialized areas. In other words discrimination against girl child is less in the industrialized districts.

Status of women and sex ratio of population are often considered to be positively correlated. Status of women in a society can be measured in terms of literacy rate among female, mean age at marriage, work participation rate, etc. It is remarkable to note that the indicators on status of women except work participation rate have exhibited negative association with ‘all age’ sex ratio. As work participation in Indian content is always inversely related to prosperity level, and as developed areas are generally marked with low sex ratio, a positive association between sex ratio and female work participation rate is understood. What is very significant to note is the fact that status of women and child sex ratio are inversely related with each other. This means that a higher literacy rate, better health care coverage of women etc. do not necessarily bring about change in the attitude of people. As a result, it appears that discrimination against girl child only intensifies with development in these fields in rural Haryana. From among all the variables taken into consideration it is only work participation rate that shows positive association with child sex ratio. For the overall material well being of the females in rural Haryana, a principal component was extracted from the data set on status of women. The component is characterized by high literacy rate, low fertility rate, and very high age at marriage. The correlation coefficient between the component score and child sex ratio as well as sex ratio at birth indicate towards an increased discrimination against girl child with improvement in the material well being of
women. Remarkably the developed districts of the north viz. Ambala, Panchkula, Kurukshetra, Yamuna Nagar, Karnal, Rohtak and Jhajjar in the central parts of the state districts of Rohtak and Jhajjar rank high on this component.

Sex ratio among children (0-6 yrs) at any point of time is the net result of interplay between sex ratio at birth and sex differentials in mortality of children. Sex ratio birth is a very good indicator of son preference and discrimination against girl child in the present context. Sex ratio at birth for 'current fertility' is a more appropriate determinant of child sex ratio. With the help of simple linear regression analyses an attempt has been made to quantify the contribution of sex ratio at birth in variation of child sex ratio across districts. Regression analysis enables us to identify the contribution of the independent variable in variation in the dependent variable. The residuals indicate the effect of other independent variables not included in the model. In the present analysis sex ratio birth has been taken as independent variables, while child sex ratio in dependent variable. The data incorporated in the model pertains to 2001. It has been found that over 75 percent of variation in child sex ratio in rural Haryana is explained by sex ratio birth alone. Thus, sex differential in mortality among children and differential enumeration of boys and girls along with misreporting of age (if any) explain less than a quarter of the total variation in child sex ratio. On the basis of the analysis of residuals it is learnt that the district of Mahendragarh, Rewari in the south and Panchkula in north are characterized by situations that are friendlier to girl children. In this regard, the next to come are the districts of Fatehabad, Jind, Bhiwani, Hisar, Gurgaon, and Yamuna Nagar. In these districts, child sex ratio is higher than what is expected on the basis of sex ratio at birth. Obviously, the mortality conditions of children in these districts are more favourable for females as compared to males. As contrary to this, in the rest of the state a further harsher
condition for girl child is noticed. As a result of which the balance between male and female children is further lower than what is warranted by sex ratio at birth. The sex differentials is mortality appears to be biased against girls children as a result of which the child sex ratio in such districts works out to be quite lower than what is expected from the prevailing sex ratio at birth. The situation appears to be far more alarming in four districts namely Ambala, Panipat, Sonepat and Rohtak.

Having done all this, it is quite pertinent to identify the core areas of deficit of females in the population with a particular focus on 0-6 year aged group. In the present study, ‘The Core Areas’ have been identified using tehsil level data, so as to formulate policy measures for intervention on priority basis. A comparison of figures pertaining to 1981, 1991 and 2001 reveals a drastic deterioration in sex composition of population in rural areas. It has been observed that the number of tehsils with reasonably high level of sex ratio has declined continuously from 1981 to 2001. This is accompanied by a corresponding rise in the number of tehsils at the lower end of FMR. As a result, the geographical expanse of the area with extreme deficit of female has undergone a drastic increase. The spatial pattern is sex ratio in rural Haryana has undergone a marked change during 1981 and 2001. However the south and southwestern parts of the state are marked with consistently better sex ratio throughout the period. The central parts have witnessed a remarkable increase in the deficit of female. This is a vast contiguous belt running in the northwest to southeast direction from Punjab border in Jind district to NCT of Delhi and reported a very low ratio. As seen at the overall level, the entire central part of the state witnessed drastic decline in female-male ratio among scheduled castes also. There are as many as 23 tehsils that have reported lower sex ratio than the state average among the scheduled caste throughout between 1981 and 2001. This has been called on ‘Core Problem Area’ for scheduled castes, so far as
deficit of women is concerned. Of there, 18 tehsils forms a contagious pocket in the central Haryana and rests five are located in Panchkula and Faridabad.

The non-scheduled castes population has recorded a continuous decline in sex ratio from 1981 to 2001. The spatio-temporal change in sex ratio that emerges is almost identical to that of scheduled castes in the state. In the southern and southwestern margin of the state, the tehsils of Pataudi, Bawal, Rewari, Loharu, Narnaul, Mahendragarh and Kosli have consistently displayed better sex ratio during 1981 to 2001, while the tehsils encircling the NCT of Delhi are characterized by a very consistent adverse sex ratio. As many as 21 tehsils are consistent in reporting lower sex ratio than the state average among the 'general castes' during the 1981 to 2001. Of them, 15 tehsils form a part of the central zone, while Kalka and Panchkula are in the north and Palwal, Hodal, Gurgaon, and Ballabgarh are located in the south-eastern region of Haryana. These are called 'core problem area' for general castes.

With a strong desire for sons and urge for a small family size, people resort to the measure of medical technology and as a result female foeticide has assumed a serious proportion during the recent part. Female foeticide is now a confirmed event with rise in prosperity, and has adversely affected child sex ratio in 0-6 year age group. This is more prevalent among higher caste than among schedule castes. Child sex ratio has undergone significant deterioration over the period in all the tehsils barring only Nuh and Allenabad. The magnitude of decline can be appreciated in the fact that while there were only two tehsils with child sex ratio below 850 in 1991, the number has gone up to 54 at the time of 2001. Of these, as many as 14 reported even less than 800 female children for every 1000 male children. Almost 90 percent of the deficit of female children came from these 54 tehsils. Some of the largest declines in child sex ratio is recorded in Shahbad (136), Naraingarh (124), Ambala (115), Thanesar (97), Guhla (94), Kurukshteta (93), Bahadurgarh (92) and Sonepat
There are 19 tehsils in all consistently reporting lower child sex ratio than the state average in 1991 and 2001. They have been demarcated and labelled as 'Core areas' for deficit of girl children. When the map of the 'core areas' of deficit of girl child is superimposed on the map showing location of tehsils which have witnessed faster deterioration in child sex ratio, we get 'Nucleus of the Core Areas'. The focus of the planners and policy makers has to be on this 'nucleus of core areas', so as to arrest the menace of female foeticide.

Gender inequality is an integral feature of the society in rural Haryana. It is more conspicuous among the higher castes than the lower castes. In order to supplement our understanding of the nature of gender relation and its ramification for sex composition in rural Haryana, a micro level study of a select village called 'Dhor' was conducted. Dhor village from Beri Tehsil in Jhajjar district was selected for this socio-economic demographic survey. The village was selected from the 'nucleus of the core area' of female deficit in 0-6 years age group. The village survey was based on 10 percent sample of households randomly selected for the survey. The survey is based on a comprehensive schedule. It included questions that were designed mainly to derive information on gender inequality and related issues. On the whole 65 households were surveyed, of which 45 belong to general castes, 15 to scheduled castes and 5 to backward castes. The sex ratio of population in the village among different segments is much more adverse than that at the average level in the state in 2001. Castewise and age groupwise sex ratio in the village as revealed in the surveyed population is in conformity with the pattern identified at aggregate level. It is found that sex ratio of Backward castes and Schedule castes are much higher than that of general castes in all age groups. Sex wise data on births and deaths in the village from the Civil Surgeon Jhajjar reveals that sex ratio at birth is highly masculine. The male preponderance at birth is a reality in the village, which in turn is the manifestation of extreme
degree of gender inequality and persisting preference of sons. From the survey it has been found that nearly one-fifth of the deliveries took place in hospital in the last 5 years preceding the survey. Boys out numbered girls, by a big margin in such cases. In the patriarchal social structure, sons are considered as prized entity. The available medical technology enables parents to know the sex of the baby much in advance while in mother’s womb. Obviously, when the foetus turns out to be male parents are more concerned about the safety of the mother as well as child. Since hospitals are considered to be much safer, such cases are taken to hospitals for delivery. This only indicates the prevailing nature of gender inequality in our society.

Agriculture is the main occupation of the people in the village. Cultivation is dominated by general castes mainly, while scheduled castes and backward castes report ‘labourers’ as the main category of work. The total literacy rate in the village is 78.7. Girls are allowed for only up to school level education. They are sent to local schools only, as their movement outside the village is very much restricted.

Almost the whole of agricultural land in owned by the general castes. In cattle rearing also the, general castes people have a clear-cut edge over the rest of the social segment. Wheat is main crop followed by sugarcane and rice. Almost all the families depend on water brought from the hand pump for drinking purposes. Wood and cow-dung cakes are the most preferred fuel. Remarkably, the responsibility of fetching water or collection of fuel wood etc. lies on the female member. The prosperity level of general castes is also revealed in the consumer and durable goods, possessed by them. The average age at marriage works out to be 18.5 years for females in the sample population. Most of the people want to marry their daughters soon after schooling. Family size in the village is declining with increase in prosperity and literacy. Son preference is almost universal in the village. Differential
Ever since the release of the 2001 census data, a low and declining sex ratio in Haryana has occupied the centre stage of discussion among researchers, planners, policy makers and social workers. The state occupies one of the highest positions in terms of the levels of development, and one would, therefore, expect a very equal gender relation in the society. Strangely, however, this is not true. A decline by 60 points in child sex ratio during the period of just 10 years from 1991 to 2001 is just one of the manifestations of persisting gender discrimination in the state. This has brought to the fore the issues of female foeticide, infanticide, bride purchase and a abysmally low status of women of discussion in the media (Annexure IV). The deteriorating sex ratio in the state has remained one of the pressing challenges for the state. As a response to declining sex ratio, the government has initiated several measures to arrest the menace. Female foeticide has been a widespread practice in the state for quite sometime now despite the presence of a law against it. During the recent part, several steps have been taken by the State Government for strict implementation of the PNDT Act. Officials from the Health Department raided several ultrasound centres and private clinics all over the state, and a constant vigil is kept on such ‘service providing’ centres. The registration of as many as 165 ultrasound clinics has been suspended, and other 100 ultrasound machines have been seized or sealed. However, so far only 2
doctors have been convicted. In order to keep close vigil 66 genetic counseling centres have been registered. The government has reoriented its approach towards the war against discrimination against girl child with major focus on efforts at community level. As an incentive, the State Government has made a provision to reward the village reporting the best sex ratio in the state. Likewise, within a district also the village reporting the best sex ratio will be rewarded. At the district level, efforts have been initiated to involve local people in effective implementation of PNDT Act. For this administration has announced financial reward to any one who helps the administration nab the unscrupulous doctors involved in sex identification and termination of pregnancy. For instance, the Deputy commissioner of Rohtak has announced a reward of Rs. one lakh to the ‘Asha’ Anganwari workers, and Rs. 25,000/- each to other ‘health workers’ who help the administration nab the doctor indulging in female foeticide. It may be recalled that the situation in rural areas of Rohtak districts has indeed been very alarming. The Central Government is contemplating to incorporate provisions for life imprisonment in the PNDT Act for those indulging in the misuse of the technology.

It may, however, be noted that as long as there is a demand for such services, it is very difficult to control the misuse by only taking action against the ‘service providers’. It is high time efforts are initiated to bring about change in the attitude of the people towards girl child. It has also to be noted that mere Government propaganda on awareness will not be enough. The same has been going on for quite sometime now but the results are there for every one to see. What is needed at this stage is a set of measures that directly enhance the ‘value’ or ‘worth’ of women in a family or society at large. Better late then never some efforts have been initiated recently. They include declaring year 2006 as ‘Year of Girl Child’, opening up of an exclusively Women’s University at Khanpur Kalan in Sonepat district, provision of concessional
travel to girls in State Transport buses, rebate in payment of electricity bill if the connection is in the name of a woman, rebate on stamp duty if the property is to be registered in the name of a woman, reservation of seats for women in recruitment for the post teachers etc. Besides, the government has started several other welfare schemes exclusively for the benefit of girl child including ‘Ladli’ and ‘ladli social security pension scheme’. In the former scheme, a financial assistance of Rs. 5,000 per annum for five years is to be extended to the parents on the births of their second daughter. The amount is to be invested as a ‘saving instrument’ in a joint account in the name of the second daughter and the mother. The accumulated amount is to be paid to the daughter when she is 18 years of age. In the second scheme, the minimum age for ‘old age’ pension has been reduced from 60 to 55 years for parents having only daughters.

Along with the above listed schemes launched by the government, several measures have been initiated to reduce morbidity and mortality of women, which include programmes like ‘Janani Suraksha Yojana’, ‘Janani Suvidha Yojana’ and ‘Delivery Huts’.

Fight against discrimination’ against girl child is gradually acquiring a wider base. Various NGOs, social workers and religions leaders have come forward in creating awareness among the general mass regarding the consequences of declining sex ratio. Such efforts have started bearing fruits also. The clan panchayat of Malik castes group, and the Jangra society have pledged their fight against female foeticide. In a village in Bhiwani districts two brothers who got married to the sisters on Dec. 31, 2007, vowed along with their wives that ‘come what may, they will not kill their girls child’. From the media, reports of improvement in sex ratio at birth have started pouring in at local level from some areas in Yamuna Nagar, Kaithal, Jhajjar, Kurukshtera, Ambala, Rohtak, Sonepat, Karnal and Panipat. Remarkably, these are areas,
which are worse hit by growing imbalances between male and female in the population. Data from some of the primary health centres (PHC) in such districts show a sex ratio at birth that shows more females babies than males babies at birth. The PHCs are Kithana, Balu, Dhandh, Kalayat in Kaithal districts, Khanpur Kalan, Madina, Mahra and Jakholi in Sonepat district and Majra Dubaldhan in Jhajjar district. Sex ratio at birth in Jhajjar district has improved in 2007 from 847 to 852 female babies per 1000 male babies. In Major Dubaldhan village sex ratio at birth is reported to be as high as 1042. This is indicative of growing fondness of daughters among parents (The Dainik Bhaskar, Dec. 29, 2007).

These are, however, very localized instances and based on very small samples. One will have to wait for the 2011 census to confirm the trend. In the mean while the measures are to be further strengthened to sustain the change in the attitude of people, and to make it more broad-based. It cannot be left to the Government alone. It is the responsibility of every conscious citizen to contribute his bit in the overall movement against gender discrimination. The focus has to be laid on the ‘core’ deficit areas, and particularly the ones that have undergone substantial decline during the recent part.

The momentum that has been generated at the level of administration should be sustained. More and more involvement of leaders at village or community level should be ensured in creating awareness among the people regarding various schemes and programmes launched by the government towards improvement of material well being of women. Currently the women folk belonging to downtrodden social groups mainly Scheduled castes are enjoying certain benefits like free education etc. The same should be extended to the other segments also, which will definitely result in attitudinal change among people towards girl child. The religious organization or similar community groups can be instrumental in bringing about awareness and
attitudinal change, among people. There are evidences where ladies get their female foetuses aborted in the name of ‘family planning’. In order to curb this practice a provision should be make that can make ‘male vasectomy’ mandatory for the husbands in such cases. Finally, it should be mandatory for the couple to register the cases of pregnancy with local Government Hospitals. That will make the monitoring of all such cases easier. This will eventually help in curbing the misuse of medical technology. In rural Haryana, ‘Khap Panchayats’ play a significant role in day to life. This is high time we make use of the influence of Khap Panchayats in a noble cause that has a significant bearing on survival of human race itself.