

Imbalance in Child Sex Ratio: Trends, Causes and Emerging Issues

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Abstract:

In many states of India, there are several evidences that indicate a widespread practice of using female birth intervention. As a result, an alarmingly lowest ever sex ratio in the age group 0-6 has been reported by the 2001 census. The most affected are the northwestern states; therefore, these states form the focus area of this study. Although, reasons for decline in the child sex ratio are many, but the most important is the presence of a strong son preference. There are, age old as well as modern factors for this preference.

This study has given some suggestions for the improvement of the socio-economic and cultural fundamentals, which has always been detrimental to the interest of our female population. From the policy point of view the state along with the community needs to facilitate any change visualized in these fundamentals, by directing programmes in the spirit that the women brings human life up so we all should bring her up. Programmes that aim to reduce the excessive son preference and increase the value of daughters to their parents must be given priority.

Introduction

It is a travesty that a nation that aspires to be a world power has no social respect for its women. Various social, economic and demographic indicators provide evidence of a gender bias as well as deep-rooted prejudice and discrimination against women and girl children. A century old Indian demographic history records that in the matter of sheer numbers, the female ratio in total population had always remained unfavourable. In this regard, the 2001 census, reveals that a decline in the child sex ratio (CSR) for the age group 0-6 has crossed all limits and has remained alarmingly at it's lowest. The issue of the survival of the girl child is a critical one, and needs systematic effort in mobilizing the community.

In India, the state has enacted various women-specific and women-related legislations¹ for the upliftment of women and to safeguard their interests. Other than these legislations some of the core developmental issues were also identified in the national plans. These were namely, a shift in emphasis from welfare in the 1970s to development in the 1980s and to empowerment in the 1990s; the latest being that of a participatory role in the affairs of state and society (Various Plan Documents). Various five-year plans have laid greater emphasis on women's economic role, and have also identified core development issues of women such as health, education, and employment. A great deal of attention is being paid to the status and well being of the girl child by the government, UN agencies, NGOs and welfare organizations. But, if a girl child does not have a right to be born, then where will all these

efforts go. It is now acknowledged that these provisions are basically useful to the women belonging to the educated, urban and high-income group, and are not helping in changing the life of the Indian poor women. Rural customary laws continue to regulate women's right in the matter of gender and development policy. In the rural and urban areas, parents continue to live with their sons, and it is still rare for married women to contribute to the parents well being.

As the list of the legislations to safeguard the constitutional rights given to women is increasing, more and more female children are missing from the Indian states². Since the 2001 census, much is being said about the declining female child population; discussions are held in national, international seminars and symposiums. The participants are scholars, NGOs and policy makers, mainly focusing on the regions, states and country- level status of the child sex ratios. Print media is also in the forefront but its attention has been flimsy, reporting a few instances of female foetuses abandoned in well, near railways tracks and in open fields. This media coverage has only been sensational with no concrete fallout. In this regards, so far all these efforts has been proved to be a just hue and cry. After the 2001 census it was expected that the child sex ratio must have started improving; rather evidences are demonstrating a widespread practice of birth interventions. It is reflected in the declining female to male sex ratio at birth in hospitals and within communities. It is noticeable that the shortage of girls has also started becoming apparent in nursery and primary classes where increasingly smaller numbers of girl children are coming for registration as compared to boys.

As mentioned, all this has just proved to be a hue and cry; the actual issues are grossly missing with the missing female children. About this issue, there are different opinions as for example: some say pre-natal diagnostic techniques are responsible; there is no enforcement of laws, while others believe that there is an unholy alliance between tradition (son complex) and technology (ultra-sound) that is creating havoc with the sex ratio in Indian society. However, no solution that reduces the traditional influence of son preference, and that increases the value of girls for the parents is explored. Although, considerable attention has been paid to the demographic and technological or medical factors in the declining CSR, the influence of the factors that are deeply-rooted in our socio-economic and cultural system have not been assessed. In the light of these observations the second section of this paper deals with the level and pattern of the sex ratio and the deficit of girls that have increased over time. In third section, some of the causes of this deficit are discussed. The fourth section is devoted to the issues that are missing but causing fundamental problems. Finally, the conclusions with policy implications are given with a hope that participants in the decision-making process will eradicate the problem.

2. The Status of Child Sex Ratio in Indian States: Since 1981

The child sex ratio (CSR) in the country had started to decline since 1981; between 1981 and 1991 this has declined from 962 to 945. Considering this decline, the Government of India passed the Pre-natal Diagnostic Techniques Act (Regulation and Prevention of Misuse) or PNDT Act, 1994 banning pre-natal sex determination, which came into force in 1996. Despite the Act, the 2001 census has registered only 927 girls per 1000 boys at the

national level; it is the lowest ratio since 1981. During this period, it has declined by 18 points and between 1981 to 2001 this was reduced by 35 points. Almost in all the states and union territories except Kerala, Lakshadweep and Pondicherry, a declining trend was noted. Table 1 compares the sex ratios for individual states as well as for groups of states and union territories. When we talk about the group of states and union territories, between 1991 and 2001, the child sex ratio declined sharply in the northwestern region; in this deterioration the contribution of other regions has been lower. However, low levels of the child sex ratio consistently persisting in many regions of India, but has still remained above the national level in all regions except the northwestern region. The child sex ratios are reported as far below the national average in the northwestern states. The most problematic states are Punjab, Haryana, Himachal, Gujarat, Maharashtra, Chandigarh and Delhi. Except for Maharashtra and Rajasthan, a decline has been in the range of 45 to 77 points during the last census. Among the major Indian states, the newly- formed state of Uttaranchal ranked fifth in the magnitude of decline in the child sex ratio during 1991-2001. This decline reveals that the phenomenon of son preference has reached alarming proportions in India's most prosperous states, rather than the most 'backward' ones.

The census findings on the abnormally low sex ratios against female children have also been confirmed by the findings of the National Family Health Survey-Two (NFHS-2). Since the census does not collect information on the sex ratio at birth, the NFHS data has been used which provides reliable estimates on the sex ratio at birth. The natural or normal sex ratios at birth are found to lie between 970 and 943 females per 1000 males for most of the societies (United Nations 1998; Arnold et al., 2002; Chahnazarian 1986). As per NFHS-II, the sex ratio at birth for children born in five years before the survey at the national level was 935, it is lower than 951 in NFHS-I. In NFHS-II, of the 26 states, in 16 states the sex ratio at birth was estimated between 934 and 826 per thousand boys. In the majority of the northwestern states, the child sex ratio was reported as between 826 to 900. In both the NFHS surveys, concerted efforts were made to avoid under enumeration of female children. This differential occurred mainly because of the prebirth interventions. Here, couples are successful in avoiding the birth of girls while ensuring the birth of boys (Arnold *et al.*, 2002). The sex selective prebirth interventions can be inferred by examining the sex ratios at birth (see Table 2).

Table 1: Sex Ratio of Child Population in Age Group 0-6: 1981-2001

India/ States	1981	1991	2001	Decline in 2001 over 1991	Decline in 2001 over 1981
All India	962	945	927	18	35
Northwestern states	945	922	889	33	56
Haryana	902	879	819	60	83
Himachal	971	951	896	55	75
J. & K	964	N. A	941	-	23
Punjab	908	875	798	77	110
Rajasthan	954	916	909	07	45
Gujarat	947	928	883	45	64
Maharashtra	956	946	913	33	43
Goa	965	964	938	26	27
Chandigarh	907	899	845	54	62
Delhi	926	915	868	47	58
North States	958	943	931	12	27
Uttaranchal	-	949	908	41	-
U. P.	935	927	916	11	19
Bihar	981	953	942	11	39
M. P.	977	941	932	09	45
Chhatisgarh	-	984	975	09	-
Jharkhand	-	979	965	14	-
East States	964	967	957	10	07
Orissa	995	967	953	14	42
West Bengal	981	967	960	07	21
South States	978	962	952	10	26
Kerala	970	958	960	+02	10
Karnataka	975	960	946	14	29
T. N.	967	948	942	06	25
A.P	992	975	961	14	31
North Eastern States	984	976	965	11	19
Assam	*	975	965	10	-
Arunachal Pradesh	997	982	964	18	33
Meghalaya	991	986	973	13	18
Manipur	986	974	957	17	29
Nagaland	988	993	964	24	24
Sikkim	978	965	963	02	15
Tripura	972	967	966	01	06
Mizoram	986	969	964	05	22
Union Territories Excluding Chandigarh, Delhi	978	970	963	07	15
Andaman, Nicobar	978	973	957	16	21
Dadara & Nagar Haveli	995	1013	979	34	16
Daman & Diu**	-	958	926	32	-
Lakshadweep	964	941	959	+18	05
Pondicherry	975	963	967	+04	08

* Census was not conducted

** In 1981, Daman & Diu figures have been included in Goa.

Sources: Census of India, 2001, Series-I, India: Primary Census Abstract, Total Population: Table A-5
Census of India, 1991; Series I- India, Part IV A –C Series; Socio-Cultural Tables, Vol-I and II.
Census of India, 1981, Series I- India, Part IV A, Social and Cultural Tables, (Tables C-I to C-6).

Table 2: Sex Ratios at Birth for Children Born in the Five Years Preceding the Survey
(Males per 100 Females)

	NFHS-1 (1992-93)	NFHS-2 (1998-99)
All India	951	935
Himachal	891	888
Haryana	881	849
Punjab	876	860
Rajasthan	902	919
Gujarat	981	934
Maharashtra	942	904
Chandigarh	-	-
Delhi	926	828
J & K	887	923
Goa	944	866
Uttar Pradesh	949	965
Bihar	1033	937
Madhya Pradesh	925	957
Orissa	902	943
West Bengal	963	919
Kerala	1010	929
Karnataka	949	956
Tamil Nadu	1021	946
Andhra Pradesh	998	969
Assam	1033	873
Arunachal Pradesh	866	851
Meghalaya	917	879
Manipur	1104	971
Nagaland	946	939
Sikkim	-	908
Mizoram	956	925
Tripura	966	967

Note: Estimates for all India excludes Tripura. For Chandigarh estimates are not available

Source: Arnold et al., 2002.

The Deficit of Girls

As mentioned above, usually, the natural or normal sex ratios at birth are found to lie between 943 and 971 females per 1000 males. On this basis, the average figure worked out to 953 females per 1000 male children (Retherford and Roy, 2003; United Nations, 1998; Arnold, et al., 2002). In this way, the magnitudes of the actual deficit³ of female children in the age group 0-6 are seen in Table 3. The deficit of girls in respect of boys is calculated as per the sex ratio at birth. For the country as a whole, this figure worked out to 953 girls per 1000 boys, anything below this figure would give the actual deficit. On the basis of sex ratio at birth the magnitude of the female deficit has been calculated for the northwestern region as well as for its constituent states. To see the regional variations only aggregate figures are given for other regions. All the states in the northwestern region are moving in the same direction; since 1981 the count for deficit of girls is doubling in the northwestern region.

Table 3: Deficit of Girls in Relation to the Sex Ratio in the Age Group 0-6 (Per centage)

India/ States	1981	1991	2001
All India	+0.94	+0.94	-2.73
Northwestern states	-0.84	-3.25	-6.72
Haryana	-5.35	-7.76	-14.06
Himachal	+1.89	-0.21	-5.98
J. & K	+1.15	N. A	-1.26
Punjab	-4.75	-8.18	-16.26
Rajasthan	+0.10	-3.88	-4.62
Gujarat	-0.63	-2.62	-7.35
Maharashtra	+0.31	-0.73	-4.20
Goa	+1.26	+1.15	-1.57
Chandigarh	-4.83	-5.67	-11.33
Delhi	-2.83	-3.99	-8.92
Uttaranchal	N. A.	-0.42	-4.72
North States	+0.52	-1.05	-2.31
East States	+1.15	+1.47	+0.42
South States	+2.63	+0.94	-0.11
Northeastern States	+3.25	+2.41	+1.06
Union Territories*	+2.63	+1.78	+1.05

*excluded Chandigarh and Delhi from this group.

Source: see Table 1.

In this way, the deficit of girls is highest in the Punjab (16.0 per cent), followed by Haryana (14.0 per cent), Gujarat (7.4 per cent), Delhi (9.0 per cent) and Chandigarh (11.3 per cent). In these states and union territories, the deficit of girls is higher than the aggregate average of the northwestern region. The deficit of girls is fast increasing in Himachal (6.0 per cent), Uttaranchal (4.7 per cent), Rajasthan (4.6 per cent) and Maharashtra (4.2 per cent), respectively. The lowest deficit was estimated for the state of J & K and Goa. In the female to male ratio, the surplus regions have been the northeast, east and also a group of union territories.

In her recent study, Dasgupta (2005) has convincingly proved that there has been a strong son preference, and the sex ratio is closely related to the sex composition of children already born in the family. The overall sex bias appears to be sex selective abortion and neglect of the female infant, based on the cultural preference for males in the northwestern region.

3. Reasons for Declining Females to Males Ratio

The available literature in this context suggests that a combination of factors namely; the urge to have a son, acceptance of the small family norm as a result of the fertility transition, access to pre-natal sex determination tests and abortion has worsened the situation relating for the girl child (Bose, 2002; Dasgupta, 2005; George and Dahiya, 1998; Goodkind, 1999; Ganatra, *et al.*, 2001; Bhat, 2002; and Mallik, 2003). The prevailing socio-economic and cultural milieu including the impact of modernization has further aggravated the situation with regard to these factors. At the household level or micro level, the relationship of population to available resources, the nature of localized risk, and heirship strategies have been the main considerations. The concept of the new household economy is widely emerging, which characterizes fewer children; a small family of which one must be a boy (Lal, 2006; Dyson, 2001). The usually known explanations like sex differentials in mortality, under-enumeration, sex selective migration, biologically determined sex ratio at birth that would have caused imbalances in the sex ratios, have not been supported by the expert findings. The deficit due to these has been negligible ((Bora and Tyagi, 2007; Bhat, 2002; Arnold, *et. al.*, 2002; Dyson, 2001). An assessment of the available studies reveals that in India, particularly, in the northwestern states, biases against the girl child are based on socio-economic and cultural considerations. Further, in a situation where social insecurity is very high, where no income guarantee and no insurance exists; it is very tough to convince the parents that girls are assets and will look after them in their old age. Virtually all kinds of effective risk coping institutions are absent therefore, sons are a lifetime protection against insecurity. Now with the small family culture even the first-born girl is not welcome. Some of the possible reasons that responsible for a decline in the child sex ratio are discussed below.

Strong Urge to Have a Son

Both in rural and urban India especially in the northwestern states, if the first birth is a girl child, the sex ratio of the second birth largely worsens against girls. There is a striking deficit of girls if the first birth is a girl; couples face imbalance in the sex ratio of their children. If the first birth is a male child, the sex ratio of the second birth for the entire northwestern states is in favour of females.

As presented in Table 4, and as Retherford and Roy's (2003) findings also reveal that if a son is already present in the family the sex ratio has a tendency to become balanced. To fulfill the desire of a son pre birth interventions are being practiced, resulting in reduced female births. The literature relates son preference to a variety of social and economic factors in the northwestern states, which interact to make females less valuable to their families. People are pressurized to bear sons while limiting the number of daughters in order

to conserve scarce household resources (Dasgupta, 2005; Sen, 1990; Coale, 1991; Miller, 1981; Hsu, 1948). A son is still the man who will carry on the family name and take care of old parents. With such prejudices, the couples are forced to use sex selective technology; there is a great deal of social demand for a son.

Table 4: Sex Ratio for Second Order Births: All India and North Western States⁴

If first birth was female	Total	Rural	Urban	If first birth was Male	Total	Rural	Urban
All India	759	761	751	All India	1103	1100	1113
Delhi	631	653	627	Delhi	1057	1445	973
Gujarat	670	672	659	Gujarat	1209	1209	1208
Haryana	667	683	614	Haryana	968	948	1050
Himachal	710	716	688	Himachal	975	1000	892
Maharashtra	749	736	782	Maharashtra	1168	1199	1101
Punjab	614	631	560	Punjab	1003	971	1102
Rajasthan	674	695	527	Rajasthan	1192	1174	1324

Source: Jha, Prabhat et al., 2006, 367:211-18.

The NFHS-2 data on future childbearing intentions reveal that women's preference for a son was evident in each state, but of the proportion that wanted more sons the figure has been higher than the country as a whole in Rajasthan (48.0 per cent), Haryana (38.0 per cent), J & K (38.0 per cent) and Gujarat (33.0 per cent).

Table 5: Percentage of Women Who Want More Sons than Daughters

India/States	% who want more sons	% who want more daughters	India/States	% who want more sons	% who want more daughters
All India	33.2	2.2			
Northwestern states			Southern states		
Delhi	23.1	2.6	Andhra	19.8	2.7
Haryana	37.5	0.5	Karnataka	13.0	1.9
Himachal	25.9	0.6	Kerala	14.6	5.2
Punjab	29.1	0.4	Tamil Nadu	9.6	1.9
Rajasthan	47.5	1.3			
J & K	38.0	2.7			
Gujarat	33.2	1.8			
Maharashtra	27.1	1.9			

Source: NFHS-2, 1998-99

Other northwestern states like Delhi, Himachal, Maharashtra and Punjab, have a lower proportion of couples that desire wanting more sons than the all-India average (Table 5). However, as compared to the southern states their proportion has been far higher. Overall, this shows that son preference is strong in the northwestern states than elsewhere and especially as compared to the southern states. Similarly, the proportion of the women wanting a daughter was higher in the southern states.

Impact of Population Policies on Child Sex Ratio

Up to the recent past, our Family Planning Programme gave undue importance to accepting the small family norm. Media, especially radio, television and posters, convinced people about government programmes and also to make use of advanced technology so that choices in family size can be ensured. Worldwide acceptance of the small family norm had an influence on our government. This has had an impact on the incidence of foeticide, a strong son preference and a targeted approach together are dominant in the northwestern states. Population stabilization for these states means having two sons per family. The NFHS-2 data reveals that almost half (47 per cent) of ever married women in India consider two to be the ideal number of children and 72 per cent consider two or three to be ideal. This shows that there is a widespread acceptance of a small family norm with a strong son preference.

The aim of population policies was to achieve a fertility decline, but in northwestern India, this decline was characterized by a strong son preference and gender bias. During the fertility decline, the total number of children desired falls more rapidly than the total number of sons desired. As the TFR falls, the parity-specific discrimination against girls becomes more pronounced (Das Gupta and Mari Bhat 1997). The effect of fertility decline is seen in Table 6.

Table 6: Decline in Total Fertility Rate and Number of Sons Desired, during 1980-91 in India

	<i>1981</i>	<i>1991</i>	<i>% Decline</i>
Total Fertility Rate	4.5	3.6	20.0
No. of Sons Desired by Women with no Son	<i>1980</i> 1.48	<i>1988</i> 1.37	<i>% Decline</i> 7.4

Source: Das Gupta and Bhat have derived total fertility rates from the Sample Registration System, and number of sons desired derived from the ORG survey, 1980, 1988

In India during the 1980s, the TFR fell by 20 per cent (or the desired number of children), while the number of sons desired by women with no son fell by only 7.4 per cent. It is, thus clear that the tolerance for a daughter has decreased during this period of fertility decline. From the Khanna study data, Das Gupta (1987) has shown that in this north Indian village, the desire for sons falls more slowly (20 per cent) than for daughters (35 per cent) amongst educated mothers as compared with other women, because they want a smaller family. There is a greater son preference evident among the educated women. Overall, the government population policy pursued acceptance of small family norm but did not take any initiative to reduce a son preference, and this policy had an impact on the incidence of foeticide.

Economic Considerations Associated With Daughters

One of the reasons for the presence of fewer girls in the northwestern Indian homes is the net wealth out flow on the occasion of a girl's marriage. Despite the Anti Dowry Act, the practice continues and is spreading all over the country. The menace of the dowry deaths has increased many fold in Punjab (1744 per cent), and in the neighbouring states of Haryana (78 per cent) and Rajasthan.(162 per cent) in 2002 over 1991 (Crime in India, 1991 and 2002). With such an environment, it is true that those households or parents with more sons are far better off than the parents with more daughters. This costs and benefits trade off leads to killing the girl in the womb than to be burdened with debts or to part with land and house (Grant 1998; Radhakrishnan, 1999). In the near past cases of farmer's suicide have been reported in the national dailies. The cause is not so much crop failure but the inability to repay debts incurred for a daughter's marriage (Bhalla, 2006). In this way a daughter becomes an avoidable social and economic burden.

Discrimination against Women in Socio-economic Activities

A sons' utility is reflected in the economy of family labour provided by him on the farm or in the family business, earning a wage and salary through mobility, looking after old age parents and also attracting dowry. This reveals that a son is a most valued asset to the family. Whereas, girls are not given such opportunities to perform all these activities, instead, a perception of economic liability is highly attached with daughters. This has resulted in widespread practices of sex selective abortion. Generally higher female labour force participation is considered as a sufficient condition for better male-female ratios. Not only participation but also their contribution to the family prosperity greatly matters. The extent to which the main male workers outnumber the females in various industrial categories in relation to the sex ratio is presented in Table 7. This shows that the sex ratio is highly unfavourable to females, and their numbers are far lesser among the main workers; their participation in agriculture and non-agricultural activities has been very low. To what extent women will participate in the various economic activities is decided by the hierarchical power structure, where man is the boss and decider. In the category of other workers, which are considered more remunerative, the sex ratio is very low in all the northwestern states. The economy of these states is characterized by a higher participation of males; females as a main worker are less than one third of the male workers (Census of India, 2001).

Although the states like Punjab and Haryana have shown a spectacular rise over the previous decades in 2001, mainly in the proportion of cultivators and other worker's categories, but it seems that the women belonging to the upper and middle income households, labour force participation is negligible. For the paid employment it was also observed that there exists a clear gender differential in wage rates. These wage differentials even exist across states, regions and communities (World Bank, 1991; Mandelbaum, 1988). The differentials in wage rates across the regions and within communities also affect the sex ratio; couples possess a clear understanding of the preference for a son. Had there been a son, household earnings would have been enhanced as compared to household with a daughter.

Table 7: Sex Ratio (Females per thousand Males) of the Main Workers by Industrial Categories⁵ 1991-2001.

India/ States	Total Main Workers		Cultivators		Agricultural Labourers		Household Industry*		Other Workers**	
	1991	2001	1991	2001	1991	2001	1991	2001	1991	2001
S. N.										
All India	290	303	251	324	616	544	494	626	138	180
Himachal	385	473	618	882	200	364	164	262	99	147
Uttaranchal	439	417	977	1011	149	161	354	405	69	118
Haryana	109	265	132	351	147	314	88	329	71	202
Punjab	46	219	12	106	47	185	116	507	68	268
Rajasthan	244	358	301	543	558	542	204	344	78	132
Gujarat	241	263	217	263	619	521	302	369	116	191
Maharashtra	482	423	633	647	1129	939	481	640	151	168
Chandigarh	150	187	14	183	65	180	345	379	152	186
Delhi	116	138	78	280	147	316	124	180	116	135
J & K	-	171	-	197	-	105	-	376	-	144
Kerala	296	275	116	138	477	429	1110	712	251	253

Notes: * is a category of v (a), i.e. manufacturing, processing, servicing and repairs in household industry.

** Consists industrial categories: III, IV, V (b), VI, VII, VIII and IX.

Source: Census of India 1991, India, *Primary Census Abstract General Population*, Part II- B (i), Vol.-I; and *Primary Census Abstract, 2001*, India, States UA & Towns, C. D.

In the case of the organized sector, the doors for employment are still not open to women as compared to men. Of the total employees in the organized sector, women's participation increased from 12.2 per cent in 1981 to 17.2 per cent in 1999. This indicates that there is a vast gap between male and female participation in the organized sector (Planning Commission, 2002). A small rise in women's employment in the public sector has been recorded. It increased from 9.7 per cent in 1981 to 15.0 percent in 1999. As in the case of public sector, women also hold a low-key employment status in the government services. Of the total employees, women were only 15 per cent in 1997 (Planning Commission, 2002).

At the decision-making levels, the Indian Administrative Service and Indian Police Service, are the highly coveted services in India. Together women stood at only 5.4 per cent in 1987 and 7.6 per cent in 2000 (Planning Commission, 2002). The same is true of other central services, universities and in the courts, where women Vice Chancellors and Judges are just negligible in India. This makes it obvious that there is an inherent element of gender discrimination. A great deal of pressure persists to raise male children.

Regarding education parents invest more in the education of children from whom they expect more returns. In term of literacy, prosperity and development most of the northwestern states are far ahead as compared to many other states in India. There is a popular belief that literacy rates have a direct bearing on population, and that literate people are less prone to gender bias. But this logic does not hold true in the northwestern states. The findings of the study undertaken for Delhi by the Christian Medical Association of India show that contrary to the popular perception, more educated parents are not necessarily less biased against having a girl child (Bagga, 2005; Jain, 2006). As per this study, the highest sex ratio at birth (933 girls per thousand boys) was estimated for both parents educated up to middle school or less. Further, the SRB was 690 for both parents educated up to high school,

graduate parents had a SRB of 813, and post-graduate parents had it as low as 769. It is a clear indication that illiterate mothers do better. However, the relationship between maternal education and gender bias can be positive or negative depending on the region of the country. In northwestern states, there is a difference of 70-100 points in the child sex ratio between illiterate and literate preference, but now illiterate women too have started adopting modern technology (Sudha and Rajan, 2003; Nagi, 2005).

From the available literature various factors have been identified in the declining child sex ratio, most prominent have been child's birth order, number of living sons, educational level of women and the rural-urban residence. However, the most influential factor that has affected the sex ratio in the northwestern states is a strong son preference. All together, there has been age old as well as modern factors, namely the urge to have a son, acceptance of the small family norm, and access to pre-natal sex determination tests and abortion technologies. The intensity of these factors has increased due to the socio-economic and cultural demand for a son as well as the impact of modernization. In this regard any laws are not acceptable.

4. The Missing Issues

There has been a great deal of hue and cry over the declining child sex ratio, but the actual issues are grossly missing with the missing girls, no one seems to be serious about recognizing issues of the increasing deficit of female children. What are the actual reasons for trends indicating a declining child sex ratio? Why do couples choose a child of a particular sex over that of the other sex? The simple answer is that in our society, the socio-economic and cultural fundamentals have been always against our female population. Now the time has come that the state needs to facilitate a change in fundamentals, directing programmes in the spirit that the woman brings human life up so we all should bring her up. Actually too much legislations and Acts are not needed, what is needed is to change social behaviors. Shifting behaviour is a lot tougher than passing laws. As the list of various Laws and Acts is increasing, the evidences of inequalities and vulnerabilities of women are on the rise.

Presently, we do not need any more Acts; actually there is a necessity of movement initiators and social reformers cast in the mould of leaders who gave India independence. Movements have helped earlier in spreading education and in the abolition of practices like sati and child marriage. These measures positively influenced the status of women. Similarly, in the case of the PNDT Act as well as in other Acts, while women activist groups were actively involved in the propagation of these Acts, these Acts did not cause the required shift in trends, mainly because the fundamentals were not correct. Similarly, the PNDT Act did not say any thing about the reduction of son preference. The declining population of girls and women should be a major concern for all, more than the legislations; efforts should be focused on the following lines.

Abolish Rigid Kinship, Introduce Bilateral Kinship System

In the northwestern states, there is a strong commonality in their kinship system, which is rigidly patrilineal⁶. This includes passing on the main productive assets through the male line, while women may be given some movable goods in the form of dowry (Grant, 1998; Das Gupta, *et. al.*, 2003; Agarwal, 1994). Strong son preference is an inherent characteristic of the rigidly patrilineal system. Here the choice of the families remained irrational and unfair to the their daughters and they are hardly considered for inheritance.

Son preference can be effectively reduced if daughters are considered for the inheritance. To reduce excessive son preference and to stop decreasing girls' population, north India needs to accept bilateral kinship systems. In this system kinship relations are maintained through both male and female line. This system is popularly accepted in South East Asian countries as well as in south Indian states (Das Gupta, *et. al.*, 2003; Wongboosin *et al.*, 1996; Sowradji, *et al.*, 1996). In all these places, there is little evidence of gender discrimination. Such patterns reduce the difference between the value of daughter and that of son, and villagers are supportive of daughters. As per the Hindu Property Act, 1956, a daughter would have been a double gainer in the matter of property, but she remained assetless. This Act has made matters worse, to avoid division of property; female foeticide was the best course available. Patriarchy is the root cause of this disease; eradication can only be effected by direct attack on patriarchy.

Make Ancestral Worship More Logical

In northwestern states, ancestor worship adds another dimension to the need to have male offspring. Son's presence is necessary to ensure one's prestige during one's lifetime and after death also for performing a series of funerary rituals. People feel that they will only be able to achieve *moksha* (reincarnation) through their sons (Jain, 2006). These types of social order need a big reform. Religious Pundits should give the preaching that the girls are as valuable as boys and the mindset that militates against the girl child may not take place. Society should *introduce a system where both sons and daughters can perform the religious rites for their parents.*

Increase Daughters' Value to Her Parents

It seems that if the large majority of the women get paid employment, as paid employment is valued much more, even then son preference will hardly get reduced. The reason is that women's contribution to their parent's family is negligible, therefore investing in daughters will continue to be perceived as investing in another family's daughter in-law (Das Gupta, *et al.*, 2003). In view of the increasing paid employment opportunities for women, the respective governments as well as community should make sincere efforts to make it acceptable that women too contribute to the well being of their parents. To reduce son preference, it is essential to have policies that raise the value of girls to their parents relative to boys.

As long as daughters continue to be totally absorbed in their husband's home and cannot contribute to their parent's economy and welfare, son preference will continue to persist even though adult women are integrated into education and formal occupations (Das Gupta, et al., 2003). At the policy level there emphasis has been laid on gender equality, but nothing has been done to alter the fundamentals of the family system in order to make daughters and sons equally valuable to their parents.

Give Autonomy to Young Women

Most of the marriages in the northwestern states are arranged marriages; this system does not give any kind of autonomy to the young women from the very beginning of her marital life. Only in the later stages of the life cycle, women's power and autonomy in the household rise, and gains fuller access to the household resources. Once she attains this autonomy she wholeheartedly guards the kinship system at the expense of younger women, which helps to perpetuate the cycle of female subordination. The practice of arranged marriages needs to be improved, it should be a matter of the couple's own choice, so that young females can escape from the intolerable adjustment situations.

Recognize the Economic Contribution of Women

It is commonly argued that parents prefer sons because their perceived net value is higher than that of daughters. Villagers generally mention the fact that only men are strong enough to do the hard work in the fields. So far there is no technology that can be useful for women in their farm activities. Therefore, not only for continuing the family line, but economy, also play an important role in their son preference. Only paid work ensures recognition of women's economic contribution. So far government has not made any effort to ensure that the direction where women's participation in all sectors of economy should be equal to that of men.

Extend Urban Like Benefits to Rural Population

Although, formal and informal activities are quite different in nature in rural areas, but most of these activities do not give them opportunities for savings, pensions, insurances and better health facilities. If such facilities are extended to the rural areas, they will also need less financial support from their sons like urban parents. Such development will definitely reduce son preference.

Girls Need Protection from Modernization

It is well known that the competitive market forces are reinforcing women's marginalization. Jobs have become insecure and vulnerable to termination while facing many form of exploitation. Parents do not like the new living styles of the modern youth and do not desire that their daughters lead such a life. This has led them to prefer sons. The booming economy has given rise to son preference. When people become richer they feel

more concerned about having a son, to pass their wealth onto. The rural based kinship tie is getting stronger and plays an important role in the market-based economy; such trends sound the death knell for more and more female fetuses.

Reduce Gender Differences of Son Preference

The importance of sons must be viewed in the perspective of the gender considerations such as wives versus husbands. In India, in all the states, women are generally considerably younger than their husbands, and they live longer than their spouses. In this situation it is generally expected that a wife in developing countries will outlive her husband by 5 to 15 years. Wives anticipate relatively long periods of widowhood (Cain, 1982). With the individual pursuit of security goals, son preference is higher among the women than their husband. Therefore son preference is related to demographic change and for a range of social and economic characteristics. In the age of 55 and above population, women outnumber the men. Census data reveals that the widowhood among women is increasing, as per the 2001 census a little above 2.4 per cent of all Indian men were widowers, as compared to 9.0 of widows. For women the importance of sons is attached with their material and emotional well being, it is logically very strong. Therefore, women will require more support from their children particularly from sons in their old age rather than men (Vlassoff, 1990; Nugent, 1985; Vlassoff and Vlassoff, 1980; Cain, 1981).

Table 8: Proportion of Females in the Age Group 55 and Above Population in 2001

	India	Gujarat	Haryana	Himachal	Goa	Maharashtra	Punjab	Rajasthan	Uttaranchal
All age	48.3	47.3	46.3	49.2	49.0	48.0	46.7	48.0	49.0
55-59	50.9	51.3	49.0	49.8	50.8	50.6	49.5	52.1	50.2
60-64	50.4	51.8	53.0	50.1	53.0	56.0	51.7	50.4	50.4
65-69	52.2	53.2	51.2	52.3	55.7	53.3	51.2	53.5	51.6
70-74	48.8	53.4	46.0	49.9	57.8	50.1	44.6	50.4	48.5
75-79	50.2	55.6	46.4	49.0	58.5	51.2	48.0	53.8	48.4
80+	51.3	58.5	47.0	50.7	60.8	55.0	47.9	55.8	49.9

Census of India, 2001 Age Tables, India and States

The age difference at marriage is clearly reflected in their old age. At the national level in the age group 55 and above, the proportion of females is higher than the men. Almost the same trend is prevalent in the northwestern states. In this way, women's motive to produce sons may be greater than that of their husbands, also the need for sons as insurance against adversity would be very high (Vlassoff, 1990; Nugent, 1985). *To reduce the dependency of women on sons, her long period of widowhood to be minimized, this is possible by way of reducing the age gap of marriage between brides and grooms.*

No Alternative to Old Age Security

Old age security still remains an important motive for son preference, when the relevant parent is both uncertain about his or her ability to be self-supporting in old age and they see, hardly any effective means of support available other than their own children, particularly

sons. There is complete absence of affordable and efficient public and private old age, social security and disability insurance/ programmes (Alam, 2006). The availability of reliable and affordable old age pension, old age social security and life insurance programmes in rural and urban areas will possibly reduce the excess dependency on sons.

Absence of Informal Labour Markets for Females

For males, the market for job opportunities (formal and informal) as part time and full time are close to universal. Such markets for educated and uneducated females, seeking part time or regular jobs; are far from adequate. Had there been regular full and part time employment opportunities or self-supporting activities for females, son preference is likely to get reduced. Also old age worries about security will be lowered. From the parent's point of view, son preference in this situation seems to be a better option, son's mobility is always better in job search.

High Degree of Social Insecurity

Social security does not mean only to insecurity against old age and disability. The insecurity that characterizes has many dimensions; it is not all related only to old age and disability. Possibilities are always there, such as: calamitous events, such as destruction or confiscation of property, unexpected illness, labour shortages, bad weather, crop failure, communal riots, revolt, crime, local insurrections, can occur at any age. Sons can offer a degree of protection against virtually all such sources of insecurity, the unexpected occurring of these events strongly lead to high degree of son preference. In the present social set up women are not allowed to involve in these activities. Also women needed protection from anti-social elements. Had there been effective risk coping institutions, sons would not have such weightage. However, it is not true that all such risks would be reduced by the presence of sons in the family, but it gives a psychological strength to the parents (Nugent, 1985; Cain, 1981).

Give women employees flexi-time

Mostly, childbearing and family commitments prevent women from working in 9 to 5 jobs in customary office settings. These preconditions to working will have to be changed in government departments as well as in private organizations. Across the country programmes should be initiated that it make easier for women to work. The role of men as husbands and fathers also needs to be changed drastically.

Give Incentives for giving birth to daughters

If a baby girl arrives, parents cannot help worrying about family finances, for the whole life parents budget get disturbed. For such families', governments in the lowest child sex ratio states should start generous family benefits which should be known as parents' money programme. After a girl child is born, rural and urban parents should get money under this programme irrespective of their occupation, they must be given extra money every month at the rate of the prevailing daily wages.

Training to be given to Women in Agriculture

Women in agriculture play an important role; it is necessary to launch various programmes aimed at offering women a wide range of vocational training, technical skill, and jobs, so that the prevailing drudgery of women could be reduced. For women, easy approachable professional training institutions should be opened. With the help of technology, they can easily plough the land. With all these skills they can become income earners as well as valuable assets to the households.

Review of the Existing Laws

The MTP Act 1971 and revised MTP Act 1975, allows abortion for specific reasons⁷. The Act requires that abortions take place in government approved-facilities. Because of the shortage of these facilities, this requirement is not enforced resulting in 90 per cent of the abortions taken place in unapproved facilities (Retherford and Roy, 2003; Arnold, Kishor and Roy 2002). Under this law female foeticide could not be stopped, they claim that the sex determination test was done to detect foetal abnormalities which is permitted by the MTP Act. In fact, this Act allows an individual to commit female foeticide. Both the MTP Act and the PNDT Act have failed since the entire operation lies in private hands; further the desire for a son has worsened the situation. It is suggested that the functioning of the private ultrasound clinics should be banned and these facilities should be made available only in government-controlled centres.

Stop Emerging Baby Boy Business

In most cities and towns in northwestern states a doctor is present round every corner. The doctors who are commercializing the issues or making big business are mainly obstetricians and gynecologists. As reported by Gurung (1999), there are three categories of doctors: the super specialists who handle gynae, obstetrics, in-vitro fertilization, or other fields like neurology, radiology, and cardiology. The second category is of the pretenders, who claim to be super specialists, through ads, contacts. These fool patients and earn more than the real ones. The third category are general practitioners, all these are completely unconcerned about deteriorating sex ratio. They have in fact-murdered daughters; they should be tried under TADA.

5. Conclusions:

The findings of this paper reveal that in spite of the various legal provisions and women's specific developmental programmes, the gender bias and deep-rooted prejudices still persist. The continuously declining child sex ratio over time is a glaring example of gender bias. About the causes of this decline various factors have been identified in the available literature as well as by this study. These are for instance: child's birth order, number of living sons, education levels of women and rural-urban residence. However, the most influential factor that has affected the sex ratio in the northwestern states is a strong son preference. Underlying this preference are age old as well as modern factors, specifically related to the historical, sociological, economic, psychological, medical and modernization

influences. With modernization, acceptance of the small family norm, access to pre-natal sex determination tests and abortion technologies has further aggravated the situation. The urge to have a son translates into reality with the spread of technology to the doorstep of couples; it has become very easy to produce only sons. In this regard, abortion laws and the PNDT Act do not have any control over couples, thriving practitioners like obstetricians, gynecologists and Y sperm injectors. Any laws are not acceptable to them. Although most laws are made in India with great fervour, their execution is the main issue. The endeavour should be to make the existing law work. The violators of the PNDT Act should be punished under TADA. The functioning of the private ultrasound clinics should be banned and these facilities should be made available only in government-controlled centers, such as public hospitals, primary health centers and health and family welfare related centers. Its tough being a girl its a big security hazard, parents consider having a girl an additional security risk.

From the policy point of view, this study has raised some issues. By aiming to reduce the excessive son preference, a change in social outlook would directly increase the female child population. The general thrust of the policies is to increase the value of daughters to their parents. Under the prevalent traditional social system, women's contribution to their parent's family is non-existent, even most educated, well paid women are unable to contribute to their parent's well being. There is a popular perception that investing in daughters is tantamount to investing in another family's daughter-in-law. To change such perceptions, the state should take the initiatives in changing the socio-economic and cultural fundamentals that have placed the female population in a disadvantageous position. More than the legislations effort should be focused on introducing bilateral kinship systems where inheritance can be considered through the male and female line, and also allow that the religious rites for parents could be performed by daughters as well. For the parents, economic considerations play an important role. For this purpose, skill formation among rural and urban women is necessary. Similarly, urban formal and informal activities that have given rise to savings, pensions, insurance, social security and better health facilities should be extended to the rural areas. Such developments will definitely reduce son preference. With the individual pursuit of security goals, son preference is higher among the women than their husbands, mainly because women outlive their husbands by 5-15 years; therefore, there is a need to minimize the age gap between bride and grooms at the time of marriage. This would reduce the widowhood period among women and the motivation to produce sons will be lower. Further in reducing son preference, social reformer activism as well as state policies can play an important role. Increasingly, the family size is getting smaller, instead of two sons and one daughter norm; the state should initiate the one son and one daughter norm, so that imbalances in the child sex ratio could be removed. The availability of reliable and affordable old age pensions, social security and life insurance programmes in rural and urban areas will possibly reduce the excessive dependence on sons. Had there been effective risk coping institutions in rural and urban areas, the son would not have been prioritised over the daughter

Endnotes:

1. The Hindu Marriage Act 1955 has made divorce an easy affair; The Equal Remuneration Act 1976 provides for equal pay to men and women for equal work; The Immoral Traffic Prevention Act makes sexual exploitation of females a cognizable offence; The Dowry Prohibition Act 1961 aims at containing the evil of dowry; The Child Marriage Act Restraint Act 1976 has raised the age at marriage of a girl to 18 years and that of a boy to 21 years; The Medical Termination of Pregnancy Act 1971, legalizes abortion on health grounds; The Indecent Representation of Women Prohibition act 1986 and the Commission of Sati (prevention) act 1987, have been passed to protect the dignity of women and prevent their exploitation and violence against them. To check the decline in sex ratios and to stop female foeticide, the Pre-conception and Pre-natal Diagnostic Techniques (Regulation and Prevention of Misuse) Act, 1996 and the amendment PNDT Act 2003 has been introduced. The main purpose has been to ban the use of sex-selection techniques before or after conception as well as misuse of prenatal diagnostic techniques for sex selective abortions and to regulate such techniques. The latest one on this list has been India's Domestic Violence Act 2006, its aim is to protect women against domestic violence. Some state government had also passed eve-teasing laws in the late 1990s.
2. In India, nearly 45 girls per thousand female live births were missing, but when we talk about total live births (male + female) then 22 girls per thousand live birth were missing (Das Gupta et. al., 1997).
3. In many studies experts have given varies estimate of the shortages of females and used the term missing females. While calculating, they assumed the female-male ratio to be unity or 1000 females per thousand men. From this method they have floated figures for the missing women. Such an exercise on these lines for 1981, 1991 and 2001 shows the number of missing females to be 22.6, 31.8 and 35.7 millions. Assuming the sex ratio to be unity is not correct since at birth between 930 to 970 girls are born against per thousand boys. We can say such a female number count is less as compared to the figure for males.
4. The data has been obtained from the Special Fertility and Mortality Survey (SFMS), conducted in February, 1998, by the Office of the Registrar General of India in the sample units (or small areas) of SRS. In this data some deficiencies such as fewer births about 14 per cent less for girls and 10 per cent less for boys were reported, but it still gives a trend about the sex differential at birth.
5. I. Cultivators; II. Agricultural Labour; III. Livestock, Forestry, Fishing, Hunting and Plantations, Orchards & allied activities; IV. Mining and quarrying, V (a) Household industries; V(b). Manufacturing, processing, servicing and repairs in other than household industry; VI. Construction; VII. Trade and commerce; VIII. Transport, storage and communications; IX. Other services.
6. Patrilineality means that group membership is passed on through the male line
7. Reasons for abortions are: (i) the pregnant woman has a serious medical disease; (ii) continuation of the pregnancy would entail a substantial risk of physical or mental handicap to newborn child; (iii) the pregnancy resulted from rape; (iv) the socio-economic circumstances of the mother would endanger the health of the newborn child; (v) the pregnancy occurred because of failure of a contraceptive method.

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