

Female Deficit in India: Role of Prevention of Sex Selective Abortion Act

CEPED-CICRED-INED Seminar on Female Deficit in Asia: Trends and Perspectives, Singapore, 5-7 December 2005. **Draft paper before publication; please do not use it as reference.**

**Female Deficit in India: Role of Prevention of Sex Selective
Abortion Act**

Leela Visaria
Gujarat Institute of Development Research
Ahmedabad 380 060, India

Introduction

The deficit of women in India's population has been documented ever since the first decennial enumeration of people was conducted in the British-occupied parts of India in the late nineteenth Century. Over the span of more than 100 years, the deficit of women has progressively increased as evident from the sex ratio of the population; the number of women per 1000 men more or less steadily declined from 972 in 1901 to 933 in 2001. Partly because of population growth, the absolute difference in the number between men and women increased from 3.4 million in 1901 to 36 million in 2001. Assuming a female to male sex ratio of 1.022 observed in sub-Saharan Africa, a region where bias against women is not evident, as a standard, Sen estimated that there were nearly 100 million women missing in the world around 2000 and nearly a third of them were missing in India.¹ Along with China and few other South Asian countries, India exhibits the anomalous phenomenon of deficit of women in the population. These countries share certain features like being patrilineal in social structure, exhibiting strong son preference and where men traditionally enjoy higher social status relative to women.

Ever since the deficit of women was noted in the population of India, there have been various hypotheses advanced to explain the deficit and various factors have been explored to understand why the population has increasingly become masculine. The possible reasons explored with data have been: the extent of under enumeration of women at different ages, sex selective migration, and sex ratio at birth. Contribution of practices such as female infanticide has also been studied at length. Also explored has been the survival disadvantage of women in relation to that of men at various ages.² Evidently, the contribution of most of these factors in the observed deficit of women has been minimal. Indian women did not in the past and even today out migrate in any sizeable number without being accompanied by men. The sex ratio at birth has not been more masculine than observed elsewhere in the world to account for the deficit of women or preponderance of men in the Indian population. Some under enumeration of women at certain ages was likely in earlier decades due to social and cultural practices related to their young age at marriage and thereby reporting young brides as much older. Also, possible seclusion of women from strangers, and thus not reporting their existence to the census enumerators, was reported in

the past. However, the possibility of any large-scale omission of women due to such reasons and its contribution to overall deficit in the population was not perceived as significant in the past or in the recent decades. Further, certain caste groups in small pockets reportedly practiced in the past or continue to practice female infanticide but again its contribution to the overall deficit of women cannot be very significant.

What has persisted and has continued to contribute to female deficit is the survival disadvantage of women or their higher mortality compared to that of men from early infancy until the mid-thirties. The age-sex specific death rates estimated by India's Sample Registration System (SRS) have consistently and persistently shown higher mortality among women from age 1 to about 34 or 39 years compared to that of men. A number of field-based studies carried out since the 1970s have convincingly demonstrated that the observed excess female mortality is due to the presence of social practices and cultural ethos that undervalue daughters or women (Wyon and Gordon, 1971; Miller, 1981; Das Gupta, 1987; Visaria, 1988; Basu, 1989; Rastogi and Raj Kumari, 1992). These are reflected, for example, in practices such as not providing timely health care to girls and women in the event of an illness including at the time of difficult child birth or seeking care for them when it is too late. Evidence on sex differentials in intra household allocation of food has also been reported by some ethnographic studies. Some micro studies on breastfeeding practices have suggested that sex differentials are not apparent at first sight but it has been observed that after the birth of a daughter, the older son may continue to be breastfed along with the sister thereby providing less milk to the younger daughter (Visaria, 1988). The reverse is rarely observed.

Increasing Deficit of Young Girls in Recent Decades

With the 1991 Census results, it was observed that the deficit of girls or decline in the sex ratio at younger ages in India increased since 1981. The child female to male sex ratio, estimated for age group 0-6 years, for the country as a whole dropped by 4.5 percent between 1981 and 2001 or from 971 to 927 girls per 1000 boys.³ At the same time, the deficit of young girls, which was not at all evident in 1981, except in the traditionally and historically masculine northern states of Haryana and Punjab and some small pockets elsewhere, became quite stark by 2001 in more

extensive areas including states such as Himachal Pradesh, Gujarat, and also in parts of Rajasthan and Maharashtra. In fact, between 1981 and 2001, the deficit of young girls aged 0-6 years increased in all the major states of India, with the exception of only Assam and Kerala. The juvenile sex ratio⁴ for children aged 0-6 years for all the major states based on 1991 and 2001 Census are shown in Figure 1. It may be noticed that the decline has been the sharpest in Haryana, Punjab, Delhi, Gujarat and Maharashtra. For the country as a whole, the female to male juvenile sex ratio declined from 945 in 1991 to 928 in 2001.

According to the 2001 Census there were 49 districts in the country, where for every 1000 male children aged 0-6 years there were less than 850 female children. Majority or 38 of these districts were located in just three northern and western states of Punjab, Haryana, and Gujarat (Census of India, 2001). The juvenile sex ratio declined by 9 percent in Haryana (from 902 in 1981 to 820 in 2001) and by nearly 13 percent in Punjab (from 908 to 793 between 1981 and 2001). Himachal Pradesh and Gujarat states also experienced decline in the juvenile sex ratio of the order of 7.5 percent that is higher than the national average of around 4.5 percent. Thus, an almost contiguous belt extending from Northwest of India to parts of Rajasthan and Gujarat has experienced drastic decline in the juvenile sex ratio in the recent decades. The decline of 60 to 83 points in the juvenile sex ratio between 1991 and 2001 or in a span of just one decade observed in many of these districts cannot be explained solely by the discrimination against girls that has been practiced in this region for several decades because at no other time in the history of Census taking has the sex ratio of children declined so drastically.

It is important to understand why and how the juvenile sex ratio has been declining in India. Other things being equal, the juvenile sex ratio, like the sex ratio at birth, does not undergo drastic changes over short periods of time. Women in India have experienced in the past and continue to experience higher mortality than men from late infancy to almost up to the end of their reproductive period. In recent years, there is enough evidence from the data collected by the Sample Registration System annually that in India the female child mortality, although higher than the male child mortality, has been declining at a faster rate than the male child mortality. This welcome change should have made the juvenile sex ratio more favourable to girls compared to the past, although it cannot wipe out the overall deficit, which is a cumulative process of

neglect of women over several decades. In spite of somewhat faster decline in female child mortality compared to that of male children in the contiguous region from north to west of the country, where historically the neglect of and discriminatory behaviour against girls leading to excess female mortality was prevalent, the deficit of girls increased (and not decreased) between 1981 and 2001.

This anomalous situation triggered the alarm bell among many scholars and policy makers. The fact that in spite of some improvements in the survival chances of young girls in recent decades, the deficit of girls in the population increased has raised several questions, which need to be explored and understood. Is it that the socio-cultural factors that have traditionally undervalued daughters compared to sons have not altered? In spite of the evidence of a decline in the desired number of children in recent years, does the son preference continue to persist in India? Is it that the traditional methods of neglect of female children leading to higher female child mortality are increasingly being supplemented by additional measures that do not allow female children to be born?

To fully understand the implications of the deficit of women, it is important to examine the available recent data on sex ratio at birth and if girls are not allowed to be born, it is important to understand why, when, which of the female children and what means are used to avoid having daughters. There is some evidence from hospital births in major cities like Delhi that in recent years the sex ratio at birth has become more masculine (Raju and Premi, 1992). Some evidence of sex ratio at birth becoming increasingly masculine is also available from the recent sample registration surveys (SRS) and the National Sample Survey (NSS) as well as the two National Family Health Survey (NFHS) conducted in the 1990s. All these surveys have reported around 110 boys per 100 girls at birth or at age 0.

Except in the southern states of Kerala and Tamil Nadu, elsewhere the registration of births is incomplete and cannot be accepted to discern any trends. Therefore, evidence to estimate the sex ratio at birth has to be indirectly calculated. The analysis of the NFHS data collected during 1998-99 carried out by Arnold, Kishor and Roy (2002) and from micro level study carried out in Gujarat and Haryana by Visaria (2004) throw some light on parity specific sex ratios. The two

studies showed that the sex ratio of the first-born children to women was within the normal range. However, as parity progressed, sex ratio became skewed with greater preponderance of male babies. For the last births, at all India level, according to Arnold, Kishor and Roy, the male to female sex ratio was 1434 (or 697 girls for every 1000 boys), among currently married women who did not want any more children.⁵ There were significant inter-state variations and in Haryana, Punjab and Gujarat the male to female sex ratio of last births was significantly higher than the national average; it ranged between 1752 and 2173 implying that for every 1000 girls who were last births, there were more than 1750 boys who were last births. This reflects a strong effect of gender preference on the reproductive behaviour of couples in these states.

In a study conducted by the Christian Medical Association of India analysing the sex ratio at birth of hospitalized deliveries during 2000-2001 in Delhi indicated that if the first birth was a male child, the female to male sex ratio of the second birth was 959. But if the first birth was a female child, the sex ratio of the second birth was 542. Among the women who had delivered two daughters, the sex ratio of the third birth dropped to 219 (Literacy and Population Newsletter, 2005). These are clearly not chance occurrences.

The Gujarat and Haryana study also showed a stronger preponderance of boys among last births compared to all other births. It further noted that among women who belonged to upper castes, whose families were landed, and who were literate, there were more than 2400 males for every 1000 girls in the last births. This is achieved either by stopping reproduction after a son is born or aborting the foetus, if a daughter is conceived. Focus group discussions conducted in the various community groups in these two states further indicated that a large proportion of couples accepted the outcome of the first pregnancy – whether it was a boy or a girl. However, if the first-born child was a daughter, then women were overtly or covertly pressurized by their husbands or extended family members to ensure that the second and or the third child born to them was a boy and took appropriate measures to ensure that a son was produced.

The preference for sons in India and particularly in the Northern region is evident in many attitudinal surveys (See: Miller, 1981; Das Gupta and Bhat, 1997; Oldenberg, 1992). The data collected by the two NFHS surveys also confirmed strong preference for sons. The desired ideal

family size of 2.7 children desired by couples, when disaggregated by sex, consisted of 1.4 sons, 1.0 daughter and 0.3 children of either sex according to the 1998-99 NFHS (IIPS and Macro International, 2000). Compared to the findings from the previous NFHS survey conducted about 6 years earlier, the son preference seemed to have reduced a little from an average of 1.6 desired sons along with the reduction in the overall desired family size. In most micro level surveys, on the other hand, the attitudinal questions on the subject have indicated that the ideal sex composition of children desired by couples is two sons and one daughter.

Legal Measures to Ban Pre-Birth Elimination of Girls

There is enough anecdotal evidence that in recent years, as the availability of newer medical technologies became easier, couples began to use ultrasound and amniocentesis to translate the desired sex preference of children into actual behaviour by opting for pre-birth elimination of daughters. The diagnostic technologies that are useful for detection of genetic disorders, chromosomal abnormalities, congenital malformations or birth defects, also make sex detection of the foetus easy. This information led to replacing the traditional forms of eliminating a female child through measures such as female infanticide by the pre-birth sex detection and subsequent elimination. Because of simplicity of the tests and their easy availability, female-specific abortions appear to have become popular and widely used. Easy access and supply are, to a certain extent, response to an increasing demand and female abortion has replaced the old tradition of culture of neglect of girl child, female infanticide practiced by certain communities and sex differentials in the provision of medical care. When the demand is clearly articulated, ways to supply the services are created.

Further, it became evident that while the use of new technologies for sex selection spread across all regions and social groups, those who were economically and educationally better off practiced sex selection much more. The study conducted in Haryana and Gujarat in 2002-03 showed that the deficit of girls among the second and third child was much greater among women who were educated beyond primary level, who were not engaged in any economic activity or who belonged to upper castes and whose families were landed (Visaria, 2004). At the same time, there was strong evidence that those belonging to backward social groups or were

less educated also to a certain extent sought information on the sex of the foetus, indicating that the practice is spreading across all socio-economic groups.

The study conducted by Voluntary Health Association of India (VHAI) in the states of Punjab, Haryana and Himachal Pradesh suggested that while easy access to medical facilities and good road network facilitated the spread and use of sex selection techniques, it is the ability to pay the provider for the procedure and of abortion, if needed, that determined their widespread use (Bose and Shiva, 2003). According to a community-based study carried out in Maharashtra also, sex selection was used by the economically better-off couples (Ganatra, Hirve and Rao, 12001). Thus, the landed groups in rural areas in the states like Punjab, Haryana and Gujarat or those well-off, employed with high incomes living in urban areas in cities like Delhi and Mumbai are much more likely to use the technology to determine the sex of the foetus. They can afford the cost of the procedure and of abortion, if needed. At the same time they have a clear preference for certain sex composition of their children while keeping the family size small. Access to the services is also easy for them. At the same time, with the spread of information and demonstration effect, the less advantageous groups are not lagging behind. These findings demonstrate that sex ratio is a manifestation of interplay between biological and social and cultural factors. Pre birth elimination is a manifestation of a long history of gender bias which has been much more evident thus far among upper caste landed households compared to the scheduled castes and tribes.

The spread of the use of the new technologies for sex detection led some health and human rights activists in Maharashtra state to start a campaign as early as mid-1980s against the misuse of the prenatal diagnostic techniques. The campaign resulted in imposing a ban in 1986 on the use of diagnostic techniques for sex detection in Maharashtra. Similar efforts at national level led to enacting an Act in 1994, known as the Prenatal Diagnostics Techniques (Regulation and Prevention of Misuse) Act, popularly known as PNDT Act, 1994. The Act became operational in 1996, but proved very difficult to enforce in spite of creating sustained campaign and public debate in the print media. Although the Act had provision for punishing the violators with imprisonment and a fine, hardly any cases of violation were reported from the states and no one was punished. Under the Act individual practitioners, clinics or centers cannot conduct tests to

determine the sex of the foetus or revealing it to the couples. However, in spite of putting monitoring systems in place both at the state and the central levels, and imposing penalties on providers who disregard or contravene the provisions of the Act, the 2001 Census results have demonstrated that in many places the Act has been violated with impunity.⁶ Since the two activities of sex detection of the foetus and abortion need not be linked at the stage of using the services, it has become possible to evade the law in connivance with the clinics having ultrasound facilities and doing sonographic tests.

It became evident that the Act lacked “teeth”. A feeling was created that the states lacked political will or were unwilling to book the members of powerful medical fraternity for violating the Act. Taking a serious view of the ground reality with regard to declining sex ratio on the one hand, and non-implementation of the Act, public interest litigation was filed in the Supreme Court by some non-governmental organizations. This led to amendment of the PNDT Act in 2002, known as PCPNDT Act of 2002 to include prevention of use of pre-conception diagnostic techniques (See: CEHAT, 2003). The amended Act not only prohibits determination and disclosure of the sex of the foetus but also bans advertisements related to preconception and pre-natal determination of sex. All the technologies of sex determination including the new chromosome separation technique have come under the ambit of the Act. The Act has also made prominent display of a signboard mandatory in all the centers with ultrasonography units that clearly indicate that detection and revelation of the sex of the foetus is against the law. Further, all the ultrasound scanning machines have to be registered and the manufacturers are required to furnish information about the clinics and others to whom the ultra sound machinery is sold. Although many view these and other such measures as very stringent, they are expected to curb the misuse of the technology and thereby lower the incidence of pre-birth elimination of the female child.

However, after the PNDT Act came into effect, information on the extent to how many sex detection tests are performed and who perform them and the extent to which pre-elimination of female foetus actually takes place has become difficult to collect or even compile. According to a few in-depth qualitative studies, women in the areas where sex ratio is adverse to girls, are well aware about the fact that the test to determine or detect the sex of the foetus before birth is not

performed in government-run facilities and that they would have to go to private facilities or practitioners for such service. They are also aware about the exact procedure involved, and the cost to them. While many private facilities offer abortion services, in order to get free abortion, they would go the government facilities where the information about sex determination test is not revealed to the provider (Visaria, 2004; Barua, 2004).

The small studies and media reports indicated that before the PNDT Act of 1994 came into force in 1996, the number of clinics or 'shops' with ultrasound units had mushroomed in the states of Haryana, Punjab and parts of the adjacent states. The short training course offered in many medical colleges in the use of the ultrasound technology and relatively low cost and portability of the machines increased the number of trained providers. At the same time, many untrained people saw an opportunity for quick money and took advantage of the situation. While they could refer women to trained gynecologists for abortion, detection of sex of the foetus with the ultrasound technology could fetch handsome amount. The availability of technology was visibly and openly advertised before the enforcement of the Act not only in Haryana and Punjab but also in parts of Uttar Pradesh, Maharashtra and Gujarat. However, after the Act, while the advertisements have disappeared, and the services have gone underground, ingenious ways have been found to continue the practice.

Prevention of Sex Selective Abortion Act Leads to Collusion and Confusion

In India abortion has been legal since 1972 and women can obtain abortion under certain conditions either if a pregnancy carries the risk of grave physical injury to a woman or endangers her mental health or when it results from a contraceptive failure or from rape. Additionally, abortion can be availed if the foetus is shown to be physically or mentally abnormal. Although the widespread campaign around the PNDT act has led to high awareness about it among people, there is some evidence that both the providers and the clients in India have begun to interpret the PNDT act to mean that all abortions (whether sex selective or not) have now become illegal. Also, knowledge about the legality of abortion services and the circumstances under which they are available or can be accessed and the MTP Act (Medical Termination of Pregnancy Act, 1971) has been found to be quite low among people in India (HealthWatch, 2004). Women or

couples often do not see or comprehend the distinction between abortion per se as a woman's right and elimination of foetus on the basis of its sex as a violation of girl's right to be born. On the other hand, the limited evidence suggests that the providers have used the MTP Act to their advantage and found newer and ingenious ways to conduct sex-selective abortions. Mobile units with ultrasound machines mounted on them and taking them from one area to another were reportedly used in certain parts of Haryana and Punjab states. At the same time, some providers also linked the provisions of the two acts either to deny abortion, which is a women's right, or make a strong plea for regulating second trimester abortion.

Without the support or collusion of the providers - both the technicians and operators of the ultrasound machines and the medical personnel who perform abortion - such a practice cannot flourish. Findings from a few studies do point out that there is a nexus between the seekers and the providers of sex selection. All most all the providers who were interviewed in the VHAI study were aware that pre-natal sex selection tests were illegal. At the same time they also indicated that some providers do misuse ultrasound machines for sex selection. The reasons given were that the providers were 'pressurised' by their clients to conduct the tests and reveal the sex of the foetus. Most of the sex selection seekers go to qualified providers who have ultrasnonography machines, who display the notice that they cannot under the law reveal the sex of the foetus. In order not to lose the clients to others and for personal financial gain, the providers do oblige their clients (Visaria, 2004; Bose and Shiva, 2003). The result of the test can be communicated with gestures or code words and no written records are maintained.

India has successfully enacted laws that are quite progressive and that do not discriminate against women. On the issue of a law that proscribes pre-birth elimination of female children, a hard question needs to be asked as to how effective has the legal remedy been so far. There is enough evidence to suggest and prove that when there was pressure to restrict information regarding the sex of the fetus, conducting the sex determination test did not disappear but went underground and the information was provided in coded language. The consequences included reduced access to safe, legal and affordable abortion. Some clinics stopped doing abortions because of the fear of being criminalized or because, while recording MTP was always mandatory, it became stringent for ultrasound clinics under PNDT Act. Also, it was alleged that there was no guarantee

that the clinics that provided the information to the unsuspecting couples about the sex of the foetus were actually basing the information on actual test or that such tests were even conducted.

In the present scenario, we need to understand the implications of the rapid and frequent developments in medical technology, which further complicate reliance on legislative strategy to control its use. There are newer and easier tests that are being developed and made available to women. For example, a new blood testing technique makes it possible to determine the sex of the foetus from a simple maternal blood test. Although its cost may be prohibitive for many at the moment, and therefore, only a few are able to access it, it has the potential of becoming widely available and the cost falling.⁷ These technologies will be hard to police and regulate. The expansion of medical technologies and tests that can make sex selection easy and possible even at home, would require innovative ways to address the issue of gender equity and challenging the existing social structures and norms that encourage son preference and daughter neglect.

A rather delicate and tricky issue that has surfaced from time to time and in the context of legislative restriction that needs careful consideration is the issue of what is sometimes termed as 'normality'. The discussion with women and their extended families, and with the providers of abortion and other services have pointed out that the justifications used to abort female fetuses are often the same as those used by people who want to abort fetuses that have been diagnosed with medical abnormalities. An abnormal fetus and female fetus are accorded similar status. The distinction between physiologically or medically abnormal foetus for which termination is legal and termination of a foetus that is sociologically undesirable is conceptually clear but is quite subtle. The same set of arguments can be put forward that like a medically abnormal foetus, a female foetus is also expensive to maintain if allowed to be born, is less productive than normal persons, can be detrimental to the parents' emotional and financial well-being, and is on many accounts better not being born. Arguing for one specific application of genetic selection may suggest to some that other applications of the technology are also endorsed.

Also, many of advocacy activities and protests carried out by some Non-governmental Organizations have tended to interlink the ban on sex selection with the need to regulate abortion that follows sex selection. They have tried to demonstrate through protest marches that sex

selection is both illegal, discriminatory and violates the basic rights of the girl child. For example, Sutra, an NGO in Himachal Pradesh where the child sex ratio fell from 975 in 1991 to 897 in 2001, organized a protest march on 2 October 2001 of women activists, Mahila Mandal members, young girls and students who shouted slogans against sex selection. The marchers also submitted a memorandum to the Chief Minister demanding strict enforcement of PNDT Act - urging to keep complete records of age and sex of all cases of medical termination of pregnancy. They also demanded that a medical committee be constituted that would give clearance for the cases where a pregnancy is terminated after 14 weeks. However, such protests have tended to create more confusion in the minds of the people who feel that by regulating abortion in order to prevent sex-selective abortion, the abortion itself would become more difficult for women to access.

Policy and Advocacy Measures

The fairly large body of research carried out in recent years and the efforts of the NGOs have brought out clearly the low sex ratio can be attributed to the age-old son preferential behaviour on the part of the parents. A reversal in the trend that undervalues daughters to that values daughters as equal to sons, would require an overall structural change in the role, status and economic value of women. It is also quite evident from the previous section that outlines the confusion about the Acts and the nexus between the providers of abortion and sex determination services and the clients that the problem cannot easily be addressed by minor policy revisions. The suggestions often made that provision of greater access to education to girls or giving skill-based training and thereby creating job opportunities for them would enhance their value and status in the family and therefore families would not resort to their elimination need to be closely examined empirically. While these are desirable goals in themselves, and also might make a difference in the long run, in the short-run their impact on tackling the issue of sex selection appears quite limited. Women themselves have internalized the patriarchal values to such an extent that even when they say that daughters take better care of parents in old age or are more emotionally attached to the mothers, their statements sound hollow because more sons than daughters are desired.

In this context the limitations of the legislative strategy and the historical deep-rooted practice creating a certain mindset of undervaluing women must be clearly understood. The deeper understanding of the implications of these has helped UNFPA to devise multi-pronged advocacy strategies that aim to make a dent in the prevailing practice of sex selection. Efforts have been underway to use all modes of communication, to educate and inform a range of stakeholders and all those whose opinions matter on the trends in child sex ratio (see: UNFPA's publication 'Missing Girls'), on the likely consequences of the deficit of girls and women and appealing to the sense of justice and basic rights of all – men and women.⁸

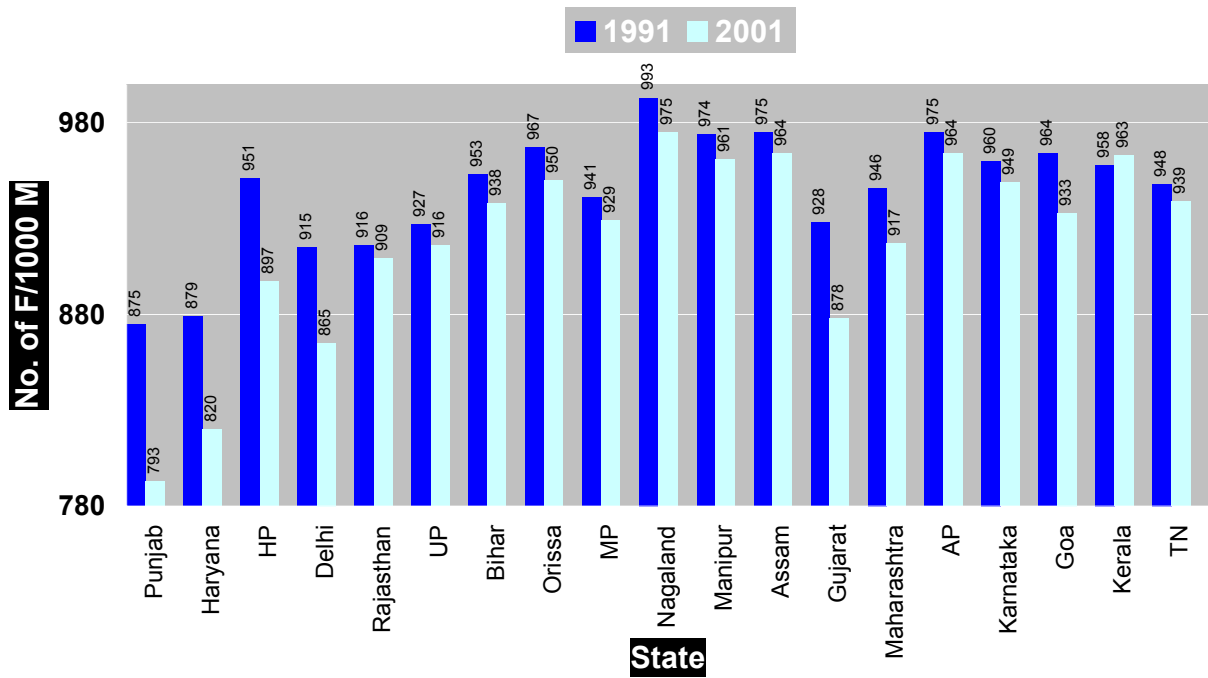
The advocacy strategies would have to keep these considerations in the mind and address them in order to become effective. These realities must be woven into the strategies and addressed head on. At the same time, it must be recognized that the long-term consequences of sex selection in terms of likelihood of a womanless society or even of finding brides for the grown up sons cannot have huge impact on the behaviour of the people. Their immediate concerns, fears, their own perceptions of reality and consequences of their decisions in the short-run must be addressed while appealing to their emotions. Their immediate concern that investment in daughters, who upon marriage would become members of someone else's household, is unproductive would have to be addressed through advocacy, through real-life stories of girls and women who have made their parents proud of them. The need is to aim at consciousness raising in both the parents about the value of daughters and understanding the cultural factors that undervalue girls.

Another way of creating awareness about gender issues including sex-selective abortion can be using popular media and publishing human stories that focus on prevalence and consequences of sex selective abortion. Visual media can also be very effective in this regard. At the same time, the media would have to be sensitized by conducting media advocacy workshops.

Similarly, there is an urgent need to work with the members of the Indian Medical Association and Federation of Obstetricians and Gynecologists to abide by the stipulations of the Act in letter and in spirit. Many advocate that the medical textbooks and medical curriculum should be revised to incorporate various legislations that directly affect the practice of physicians and also

discuss underlying ethical considerations. Surprisingly, medical education in India has not included such issues and nor does it emphasise effective communication.

Fig. 1 Decline in Child Sex Ratio (0-6 yrs) 1991-2001



ENDNOTES

¹ Besides Amartya Sen (2001), Coale (1991) and Klasen (1994) had also earlier estimated the number of missing women using different procedures. All the estimates of missing women have been in the same range of around 100 million worldwide.

² For extensive discussion see for example: Visaria, P. (1971), Visaria, L. (2002), Agnihotri, (2000).

³ The child-sex ratio is calculated for the age group 0-6 (and not for 0-4 age group) because children up to age 6 are assumed to be illiterate and therefore in order to compute literacy rates for 6 + population, separate count of children aged 0-6 is available more readily and quickly.

⁴ The terms child and juvenile sex ratio are used interchangeably. The term Juvenile in demographic literature is used to refer to those who are young. Since sex ratio is calculated for children aged 0-6 years and not children aged 0-4, which is the conventional child sex ratio measure, the term 'juvenile' is often used in India.

⁵ The international practice is to estimate sex ratio as number of males per 1000 females. However, following the practice followed in the United Kingdom until recently, India continues to estimate sex ratio as number of females per 1000 males.

⁶ Although the Central government had directed the states to monitor and implement the Act by setting up appropriate authorities at the district and sub-district levels, and constituting advisory committees with representatives from medical profession, legal expert and social workers, almost nowhere such bodies are reported to be functional.

⁷ While discussing this and other such technologies with a spokesperson in the MOHFW, I learnt that efforts of the Ministry to get the detailed information on the newer technologies or research on them from the Indian Medical Association have so far drawn a blank. Their unwillingness to share the information is understandable due to the fear that the proviso of the Act would be expanded and the ban on import of such test kits would make them prohibitively expensive and also not allow the pharmaceutical companies to produce them locally.

⁸ The maps based on the results of the 2001 Census show the deficit of girls in several states. The Census Office has used these maps very effectively during the release of census results in a number of states and highlighted the social and other implications of the findings from the Census count.

REFERENCES

- Agnihotri, Satish B. 2000. *Sex Ratio Patterns in the Indian Population: A Fresh Exploration*, Sage Publications, New Delhi.
- Arnold, F., S. Kishor and T.K.Roy, 2002. "Sex-selective abortions in India", *Population and Development Review*, Vol. 28(4), pp.
- Barua, A. 2004. "Availability and accessibility of abortion care: Ahmedabad's urban slums", in: HealthWatch Trust and CEHAT, *Abortion Assessment Project of India: Qualitative Studies*, HealthWatch Trust, Jaipur and CEHAT, Mumbai, pp.22-41.
- Basu, Alaka, M. 1989. "Is discrimination in food really necessary for explaining sex differentials in childhood mortality?" *Population Studies*, 17(2), pp. 193-210.
- Bose, A. and M. Shiva, 2003. *Darkness at Noon: Female Foeticide in India*, New Delhi, Voluntary Health Association of India.
- CEHAT, 2003. *Sex Selection Issues and Concerns*, Mumbai, Centre for Enquiry into Health and Allied Themes.
- Census of India, 2001. 2004. *Final Population Totals, Series I- India*, New Delhi, Registrar General and Census Commissioner, India,
- Coale, Ansley, 1991. "Excess female mortality and the balance of the sexes in the population: An estimate of the number of "missing females"" *Population and Development Review*, 17(3), pp. 517-523.
- Das Gupta, Monica, 1987. "Selective discrimination against female children in rural Punjab, India," *Population and Development Review*, 13(1), pp.77-100.
- Das Gupta, Monica and P.N. Mari Bhat, 1997 "Fertility decline and increased manifestation of sex bias in India", *Population Studies*, Vol. 51(3), pp. 307-315.
- Ganatra, B., S. Hirve, and V.N. Rao, 2001. "Sex-selective abortion: Evidence from a community-based study in Westrn India", *Asia-Pacific Population Journal*, Vol. 16(2), pp. 109-124.
- HealthWatch, 2004. *Abortion Assessment Project of India: Qualitative Studies*, HealthWatch Trust, Jaipur and CEHAT, Mumbai.

- IIPS and ORC Macro, 1995. *National Family Health Survey (NFHS-1), 1992-93: India*, Mumbai, International Institute for Population Sciences.
- IIPS and ORC Macro, 2000. *National Family Health Survey, India, 1998-99*, Mumbai, International Institute for Population Sciences.
- Klasen, Stephan, 1994. "Missing Women' Reconsidered," *World Development*, 22(7), pp. 1061-1071.
- Literacy and Population Newsletter*, 2005. (Published by National Documentation Centre on Literacy and Population Education, New Delhi), No. 48, July-August.
- Miller, Barbara D., 1981. *The Endangered Sex: Neglect of Female Children in Rural North India*, Cornell University Press, Ithaca, New York.
- Oldenberg, P. 1992. Sex ratio, son preference and violence in India: A research note", *Economic and Political Weekly*, Vol. 27 (49-50), December, pp. 2657-2662.
- Raju S. and M.K. Premi, 1992. "Decline in sex ratio: Alternative explanation reexamined", *Economic and Political Weekly*, Vol. 27(17), April, pp. 911-912.
- Rastogi, S.R. and R. Kumari, 1992. "Son preference and effectiveness of the family welfare programme in Uttar Pradesh", in: Patil, R.N. (ed.), *Health, Environment and Population*, New Delhi, Ashish Publishing, pp. 165-179.
- Sen, Amartya, 2001. "Many faces of gender inequality", *The New Republic*, September 17.
- Visaria, P. 1972. *The Sex Ratio of the Population of India, Monograph No. 10*, New Delhi, Office of the Registrar General
- Visaria, L. 1988. "Sex differentials in nutritional status and survival during infancy and childhood: Review of available evidence", Paper presented at the Conference on Women's Position and Demographic Change in the Course of Development, Asker, Norway.
- Visaria, L. 2002. 'Deficit of women in India: Magnitude, trends, regional variations and determinants', *The National Medical Journal of India*, Vol. 15, pp.19-25.
- Visaria, L. 2004. "Sex-selective abortion in the states of Gujarat and Haryana: Some empirical evidence". *Abortion Assessment Project of India: Qualitative Studies*, HealthWatch Trust, Jaipur and CEHAT, Mumbai, pp. 64-83.
- Wyon J.B. and H. Gordon, 1971. *The Khanna Study*, Cambridge, Harvard University Press.