EQUAL RIGHT TO LIFE FOR "NEVER BORN" AND PRE-CONCEPTION AND PRE-NATAL DIAGNOSTIC TECHNIQUES ACT IN INDIA: MAPPING THE REGIONAL DISPARITIES AND SOCIO - ECONOMIC CORRELATES

Upma Gautam[*]

Deeksha B. Tewari[**]

Abstract

Gender bigotry is one of the most excruciating social realities of a large number of societies across the world. The reflection of this discrimination based on gender gets substantiated by the decline of child sex ratio in any civilized society. This narrative rings true for India as well, where patriarchal and traditional societal values still dictate the preference for a male child over the female. A major downfall of such a system is the way it has treated its womenfolk: subjugated and oppressed by men in the name of religious, social and cultural traditions and conventions. Even worse, this sordid situation is perpetuated by females themselves by allowing the status quo to continue from generation to generation. In India, comparing the census data reveals a dangerously declining trend in the sex ratio and to further add insult to the injury, the child sex ratio reflects an even worse picture. As a result, some of the areas suffer from an extremely skewed sex ratio. The legal framework with an objective of suppressing female infanticide was in place right from 1870. The Infanticide Act of 1922, MTP Act of 1971 and finally The Pre-conception and Pre- natal Diagnostic Techniques (Prohibition of Sex Selection) Act, 1994 were enacted for curtailing the evil practices of female foeticide and infanticide but the reality has been altered only marginally. There is rampant misuse of "preferred" sex selection techniques resulting into "selective" selection and termination of pregnancies. This chapter while delving into the regional disparities of this problematic scenario of the child sex ratio also analyses various socio economic correlates of child sex ratio like female literacy rate, level of urbanization, total fertility rate and alike, for understanding the legal impact assessment of the Acts and rules enacted for ensuring right to a "dignified" life for these "never borns."

I Introduction: Gender inequity, sex selective techniques and law

IN INDIAN society, female infanticide has been a characteristic feature for centuries. Records from as early as eighteenth century reveal that it was a socially acceptable practice. Such systematic killing of the female born was prevalent in parts of North-Western provinces, Central India, Kutch, Punjab and Oudh. The reasons for such brutal practice were many, ranging from the fear amongst

Rajput kings that the race will end up losing their sovereignty because of female heir or the concept of family losing their honor. As a result, the percentage of female infants was as low as 25%-30% of the total population of minors at the time.[1]

These shocking statistics stand in stark contrast to the depiction of women in India as a goddess in mythology, revered and worshipped pan-India. Moreover, the Vedic times saw women as equal of men and right bearers in their own selves. The fall from such an exalted position began thereafter and fell into an abyss of violence, aggression, subjugation and discrimination against women. Starting from her inception in the womb to female foeticide, being born a female is beset with challenges. The continuing trend of decline in sex ratio both in the past as well as in present, substantiates and corroborates the same. Further, this trend of decline in sex ratio not only depicts a picture where status of women, socially and economically is poor but also points towards a social problem which is much bigger and grave social than violence against women.

Globally, gender equity and equality have been recognized as key factors to ascertain the vigor of a nation and indicators socio-economic development of the same. In fact, gender equality is a "precondition for meeting the challenges of reducing poverty promoting sustainable development and building good governance".[2] The Sustainable Development Goals of United Nations specifically emphasize on the empowerment of women and gender equality to achieve "inclusive and sustainable development".[3] This is an essential step because over centuries, in the patriarchal societies, inequitable and discriminatory gender relations developed justifying themselves on the basis of various cultural, religious norms and social endorsements. Thus, "gender" which at times referred to the biological differences between a man and a woman, gradually transformed into a dimension of referring it as differences amongst both, which were socially constructed and based on which their roles and relationships in the society were determined. Interestingly, these unbalanced gender equations found resonance in plethora of legal provisions across the world, including India. As the female is not treated at parity with the male, it resulted into varied social realities for both the genders in which the reality of women consistently remained miserable and helpless.

Social reality of gender discrimination is an overarching phenomenon which reveals itself through various other interlinked issues in a society, such as dowry, female foeticide, infanticide, inequality in professional, household spheres, offences against women *per se* which have resulted into a

[1] Sangeeta Cheetu, "Growing Menace of Female Foeticide in India" XVII (1 and 2) *ISLJ* 26-32 (1991).
[2] Kofi Annan, Former UN Secretary General. *available at:* https://www.un.org/press/en/1998/19980430.SGSM6544.html (last visited on Aug. 25, 2019).
[3] UN Women, "SDG 5: Achieve Gender Equality and Empower all Women and Girls". *available at:* https://www.unwomen.org/en/news/in-focus/women-and-the-sdgs/sdg-5-gender-equality (last visited on Oct. 25, 2019).

situation that right from the birth the girl child is not preferred the child. This discrimination operates on all accounts: psychological, social or economic. This situation remains the same across the world to an extent that a considerably large number of females in each society are deprived of even basic amenities to lead a dignified life including those in India.

When it comes to rights pertaining to reproduction, it encompasses a wide range of rights within its ambit in contemporary times. The dynamics of this right *per se* is not a simple equation. With the development of scientific techniques new subsidiary rights are quite often included within rights related to reproduction, so as to make it exhaustive and meaningful. Assisted reproductive techniques, preferred sex selection techniques and most importantly termination of pregnancy are some of the associated issues. These have strained legislators, academicians and judiciary to address reproduction related social, moral, ethical and legal concerns in past few decades.

In this study, an attempt is made to understand the underlying causes and correlates of female deficit in our country and to provide a geographical patterning of this deficit. The first section of this study sets the background of the study elaborating on the ever-changing role of law in course with newer techniques related to the reproductive performance of women in a society. The second section describes the regional disparities in the child sex ratio in the country. The third section elaborates the various socio economic and demographic correlates of the diminishing child sex ratio in the nation. The fourth section deliberates on the critical analysis of The Pre-conception and Pre-natal Diagnostic Techniques (Prohibition of Sex Selection) Act, 1994 (hereinafter called PC and PNDT Act).[4] In the fifth section a spatial understanding and performance of the above mentioned Act is provided. Finally, it concludes with a way forward from the pessimistic present to a probable optimistic future.

II Regional disparities in child sex ratio: Exploring the variations

Sex Ratio outlines a reflection of male-female equilibrium in a population. Gender equity in a population is studied by employing various tools of measurement. To undertake a cross sectional analysis of measuring gender balance, sex ratio is an extensively used tool. It is a particularly sensitive indicator of the status accorded to women and reveals the way in which a society treat its women. The term 'status' implies all the roles which are culturally prescribed for a person along with the different rights and duties that are inherent in any social position. It also denotes position of an individual in a social system. Status of women can be defined as the degree of parity, liberty and

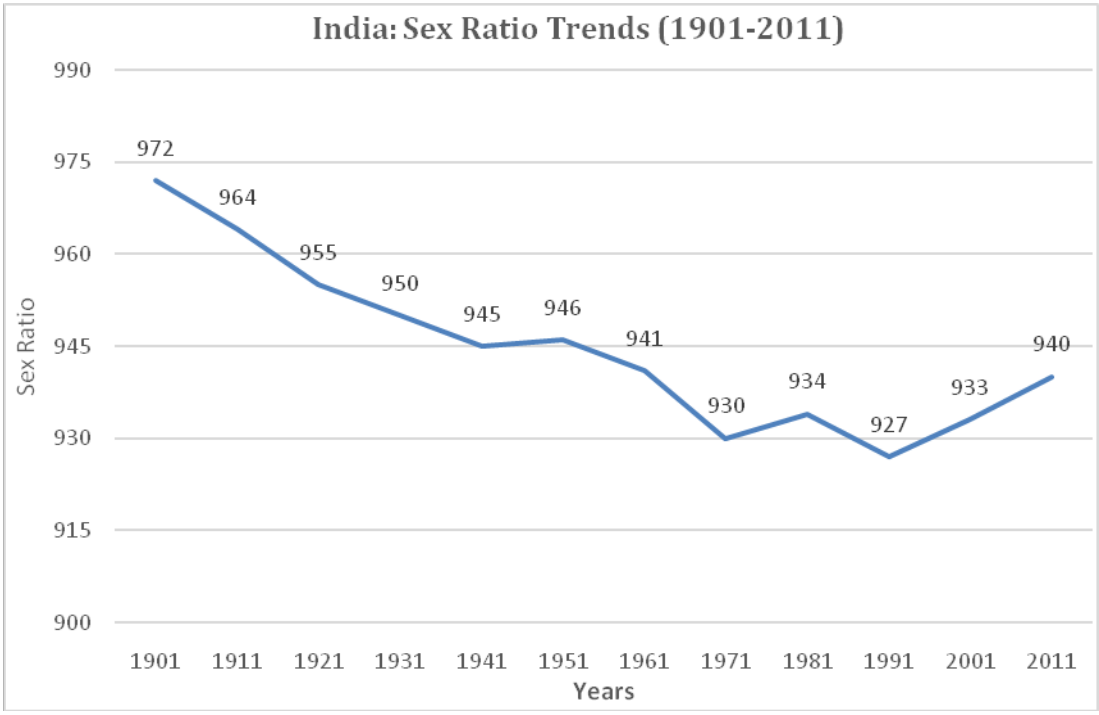
[4]The Pre-conception and Pre- natal Diagnostic Techniques (Prohibition of Sex Selection) Act, 1994 (Act 57 of 1994).

freedom enjoyed by women in influencing and assuming the various seats of power and is also reflected in the importance given by a society to the role performed by women.[5]

Ergo, there exists no debate about the fact that status is a significant social indicator which is commonly used to determine the extent of prevalent parity at a point of time—nationally and internationally—between males and females in given society. Across the various countries of the world, the ratio of female-male population is favorable for women, except in a few countries including India, where it is detrimental. Not only the number of females per thousand males is less in India but is constantly declining over the decades, having serious implications for women. Gender discrimination is any action that denies special privileges, opportunities or rewards to a person based on their gender. Gender discrimination is also known as sexual discrimination.[6] Adverse sex ratio in any society reflects the prevalence of gender discrimination and the discriminatory and oppressive condition of women and girl children.

The picture from the 2011 census appears to be grim as only a negligible increase can be seen in the population of women from 933 (2001 census) to 943 females per 1000 males. Since the last almost eight decades, the sex ratio of India has been within this range which is evidently a cause of concern and alarm. The societal reaction and approach towards the girl child in the recent past can also be examined through deliberating on the pattern of sex ratio. As per the census in 2011 of India, a study of the data related to sex ratio presents a grim picture of the status accorded to female population in various states of the country.

[5] R. K. Pruthi, III *Encyclopedia of Status and Empowerment of Women in India* (Mangaldeep Publications, Jaipur, 1999).
[6] Prem. R. Bhardwaj, *Gender Discrimination: Politics of Women Empowerment* (New Social, Anamika Publishers, Delhi, 2005).



Source: Office of the Registrar General of India, Ministry of Home Affairs

The trends in sex ratio show that in 1901, there were 972 females per 1000 males, and there were about eleven States and Union territories in India that had a sex ratio figure higher than this national average. A declining trend has been noticed in many states except Kerala. A marked contribution in the deteriorating trend in the overall sex ratio of our nation was added by states such as Tamil Nadu, Bihar, Chhattisgarh, Gujarat, Jharkhand, Madhya Pradesh, Maharashtra and Orissa. A special dubious mention should be made of sex ratio performance of Punjab, Haryana and Rajasthan which has been consistently low over decades and has contributed significantly to the deterioration in the sex ratio. It is shocking to find that in Rajasthan, the sex ratio has always been at a low level and kept fluctuating in a constricted band. States showing consistently low and stagnant sex ratio are Haryana, Andhra Pradesh and Karnataka. In the year 1901-1941 a sharp decline in the sex ratio was seen in West Bengal. Interestingly West Bengal registered an imperceptible turnabout towards an ascending track to reach 934 as per the census of 2011.

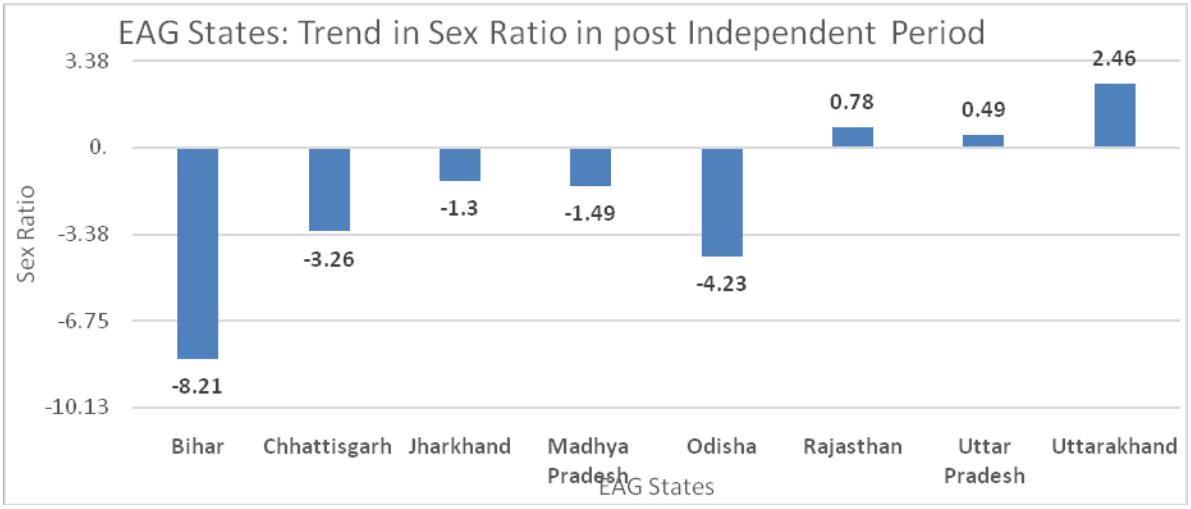
Top Five and Bottom Five States/UTs by Sex Ratio - 2011

Top Five States/UTs			**Bottom Five States/UTs**		
s.no.	**State/UT**	**Sex ratio (females per 1000 males)**	**s.no.**	**State/UT**	**Sex ratio (females per 1000 males)**

1	Kerala	1,084	1	Daman & Diu	618
2	Puducherry	1,037	2	Dadra & Nagar Haveli	774
3	Tamil Nadu	996	3	Chandigarh	818
4	Andhra Pradesh	993	4	NCT of Delhi	868
5	Chhattisgarh	991	5	A & N Islands	876

Source: Office of the Registrar General of India, Ministry of Home Affairs

An analysis of the performance of sex ratio in Independent India points to a disturbing trend, whereby India sex ratio over six decades (1951-2011) have shown a decline of (-)0.32 percent.[7] In the years 2001 and 2011, eighteen States/UTs documented sex ratio figures above the national average of 933 and 943 respectively, while remaining seventeen drops below this mark. In India, the eight states which are backward in terms of relevant socioeconomic indicators are referred to as the Empowered Action Group (EAG) states. These states are: Orissa, Uttaranchal, Jharkhand, Madhya Pradesh, Bihar, Chhattisgarh, Uttaranchal and Rajasthan. Five out of eight states have shown deterioration in sex ratio at birth over a period of sixty years (1951-2011) in spite of the efforts of the government.



An analysis of sex ratio in these states for a period 1981-2011 reveals an astonishing fact that amongst these states, those states which are socio economically backward, large and contribute a greater proportion of the total country's population, *e.g.,* Bihar, Rajasthan and Madhya Pradesh

[7] Government of India, Report: Women and Men in India (Ministry of Statistics and Programme Implementation, 2017).

continue to have a sex ratio much worse than the national average during the above said time period. This figure dissipates the efforts, both legal and socio-economic, undertaken as a relentless pursuit of the government to improve this critical indicator of social development.

Sex ratio at birth

The ''sex ratio at birth'' can be described as the number of females born for every 1,000 males born[8] in a year. It is a distinctly an unambiguous and sophisticated standard of the magnitude of prenatal sex selection.[9] Everywhere in the world, at birth, males outnumber females by essentially the similar figure as there are about 105 male babies for every 100 female babies.[10] By calculation, thus, there should be 952 females per thousand males at birth if natural factors are allowed to play their roles. It is in this light that India's skewed sex ratio at birth that is much inferior than the ideal figure of 952 is a cause of great concern and is an undeniable reflection of the extensive use of prenatal sex selection and termination techniques.

In India, the sex ratio at birth has never peaked at an ideal figure of 952 females per thousand males in the last 35 years (1981-2015). On the contrary, the country has witnessed a consistent downward trend over these years. These figures of gender selective decline are relevant also because the early 1980s were the years when ultrasound technology reached India. There is thus a visible simultaneity in the introduction of a sex-selection technology and a decline in sex ratio at birth. This cannot be accorded to chance.

sex ratio at birth based on registered events

	1981-82	1990-91	1999-2001	2003-2005	2011	2012	2013	2014	2015
India (SRS)	-	-	-	-	906	908	909	906	900
India (CRS)	910.74	900.09	893.65	880.28	909	908	898	887	881

[8] The Civil Registration System and the Sample Registration System (SRS) collects statistics periodically on sex ratio at birth at the national level and the reports are produced every year by the Office of the Registrar General of India. However, the data collected by the Civil Registration System is unreliable as there is a blatant under registration of births in several states. Hence, the evaluation by the SRS estimates are repeatedly used and quoted reference of sex ratio at birth data. See "How many Girls are Missing at Birth in India? Trend in Sex Ratio at Birth (2001-2012)" *available at*:https://asiapacific.unfpa.org/sites/default/files/resource-pdf/Missing%20Girls%20in%20India_0.pdf (last visited on Dec. 5, 2019).

[9] N. S. Coney and W. C. Mackey WC, "The Woman as Final Arbiter: A Case for the Facultative Character of the Human Sex Ratio" 35(2) *J Sex Res* 169-175 (1998).

[10] Central Intelligence Agency, "The World Fact Book", *available at:* https://www.cia.gov/ library/publications/the-world-fact book (last visited on May 15, 2019).

Source: SRS: Up to 1996-98: Graphs from India, Registrar General (2001)1998 onwards: India, Registrar General; Civil Registration System, O/o Registrar General of India

Author's calculations.

According to the reliable estimates, in India, from 2001 to 2007, the loathsome exercise of prenatal sex selection has caused nearly 6,00,000 (six lakh) girls going missing every year. This amounts to approximately 1,600 girls a day. It is therefore not without reason that the census conducted in the year 2001 was termed as census of missing girl child.

Child sex ratio

Republic of India as well as all the South Asian countries is embedded with bewildering demographic diversities ergo, these societies are also identified by their ardent norms which are a reflection of patriarchal beliefs which culminate into gender discrimination and a vehement desire for a male child over a female child. It cannot be doubted that the predicaments regarding the skewed child sex ratios are serpentine and mutually invigorating. Similar to understanding the sex composition of the entire populace, the sex composition of divergent age groups is noteworthy for elaborating the patterns of the population in the times to come the demographic inclination of young population and eventually the stature of the female baby. A horrifying scenario is reflected through the 2001 census in India where the sex ratio of the populace in the age group 0 years to 6 six years (0-6 years) was registered as 927 showcasing a significant decline from 945 in 1991 and 962 in 1981. Shockingly it has reduced to 918 in the year 2011 demonstrating a drop of another nine percentage points.

This persistent diminution in sex ratio of the age group 0-6 years has a substantial impact on the population and results in a steep decline in the overall sex ratio within a country. The most evident issue—which is created as a consequence of this distorted sex ratio at this early age group—is the imbalance that is produced in the population which is tough to be eliminated and would stay to haunt the population forever. This mishap is best comprehended, if one contemplates the reality that the child sex ratio is predominantly governed by sex ratio at birth and mortality within the early childhood.

The crucial aspect of studies conducted by various authors has been to understand the spatial patterns and the various underlying causes of child sex ratio in India. Various patterns of the spatial extent of female child deficit and masculine sex ratio have been established in India. Visaria[11] has

[11] P.M. Visaria, "The Sex Ratio of the Population of India" in M. B. Rajani and Asha Kuzhiparambil, "Epicentres of Missing Daughters: Geo-Spatial Analysis of the Child Sex Ratio in India", *available at:* https://www.esri.in/~/media/esri-india/files/pdfs/events/uc2011/papers/Ntech_UCP0060.pdf (last visited on Dec. 5, 2019).

delineated the customary north-south divide in patterns of female excess and female deficit in the country. Agnihotri[12] and Sudha and Rajan[13] have also elucidated the tendency of northernization of the spread, and have attributed it to the culture and human ecology of the north India often showing the characteristics of higher mortality, more masculine sex ratios, higher fertility, and an ultimate lower status of girls. Such well identified cores with such characteristics of discriminatory attitudes against the girl child have dispersed towards culturally identical, adjacent regions over the years with the large scale spread and use of technology. Säävälä[14] has argued that the rapidity of the decline in child sex ratio owes its swiftness to geographical and social diffusion effects.

The two crucial indicators of judging the status and situation of girl child in a population are sex ratio at birth and child sex ratio (0 years to 6 years). The trends for both these critical indicators are declining for India and the situation is alarming as most of the bigger states in India have registered a decline on both these indicators. If a picture is elucidated in totality, then, it is clear that at birth in India, there are not enough girls as should be if ideal or world average is taken into account and thus the role of sex selective pre natal termination of pregnancy or abortions cannot be ruled out. Also, in case of child sex ratio, there is a declining trend, which points out to the fact that female infant mortality or mortality in early years is also rampant. The immensity of the decline can be identified by the fact that a decline in child sex ratio was registered in 31 states/UTs during 2001. About 23 states have repeated the declining trend between 2001-2011. Alarming trends are discerned in some of the major states like Madhya Pradesh, Rajasthan, Maharashtra, Uttar Pradesh, and Bihar where the decline in some cases is as high as 22 percent points. Amongst the major states of India, Maharashtra, Madhya Pradesh and Rajasthan have a sharp decline in child sex ratio ranging from 30 percent points to 20 percent points. At an All India level too, the declining trend in child sex ratio points out that whatever advantages were provided by the natural biological laws of human reproduction to the mankind for balancing its natural sex ratio, has been made unavailable by religious-cultural beliefs, customs, anthropocentric laws, behaviors, and state of art medical technology, consequently resulting in according a nether stature for girls and women in a society.

EAG States: Combined Picture of Females			
	Sex Ratio	**SRB**	**CSR**
State/ Union Territory	**2011**	**2011**	**2011**
Bihar	918	912	935

[12] S. Sudha and I. S. Rajan, "Intensifying Masculinity of Sex Ratios in India: New Evidence 1981-1991" 288 *CDS* (March, 1998), *available at*: http://www.cds.edu/download_files/wp288.pdf (last visited on Aug. 25, 2019).
[13] S. B. Agnihotri, *Sex Ratio Patterns in the Indian Population: A Fresh Exploration* (SAGE Publications Pvt. Ltd, New Delhi, 1st edn., 2000).
[14] M. Säävälä, *Below Replacement-Level Fertility in Conditions of Slow Social and Economic Development: A Review of the Evidence from South India* 45-66 (Finnish Yearbook of Population Research, XLV, 2010).

Chhattisgarh	991	915	969
Jharkhand	948	912	948
Madhya Pradesh	931	897	918
Odisha	979	902	941
Rajasthan	928	911	888
Uttar Pradesh	912	906	902
Uttarakhand	963	869	890
INDIA	**943**	**909**	**918**

Source: Office of the Registrar General of India, Ministry of Home Affairs

The analysis of EAG states regarding all the three significant social indicators of women's status points out that the three states of Rajasthan, Uttar Pradesh and Madhya Pradesh perform negatively on all the three indicators and have figures less than the national average. These are thus the critical states as far as status of women in this country is concerned. The status of Haryana, even though it is not part of the EAG States, is even more deplorable. In terms of sex ratio and child sex ratio, Haryana not only occupies one of the lowest positions in the country, but has also witnessed a constant decline from 1991-2001 and some points increase in 2011. An unprecedented low sex ratio in the state has ordinarily been accredited to a comparatively higher number of male babies over female babies at birth, and a higher death rate among females than males in all age groups. Haryana has a deficit of nearly 1.63 million females in its population in 2011. Overall sex ratio has recorded a minimum decline during 1991-2001. It has declined by 4 points in overall sex ratio. The pace of a steep decline in child sex ratio in Haryana has been more conspicuous since 1991. From 1991-2011 child sex ratio in the state has gone down from 879 to 834, a decline by 45 points. Further the decline has been more rapid in the latter decade, and demographers have attributed this to increase in male-female ratio at birth. Remarkably well over 70 percent of the decline has been registered only between 1991 and 2001. This decline is the sharpest in the country after Jammu and Kashmir, which recorded a decline of 63 percent points between 2001 and 2011.

III Socio economic determinants in "preferred" sex selection: Mapping the correlations

Sen (1990)[15] elaborates that key studies have concentrated upon the cultural similarities and divergence across various areas of the country and point out to the conventional north south bifurcation signifying differential place of females in the social order, which leads to the prejudicial

[15] Amartya Sen, *More than 100 Million Women are Missing* 61-66 (Dec. 20, 1990).

behavior towards the girl child and as a consequence there is excess child mortality of young girls. The trend of the last five decades brings to light that the child sex ratio (which involves the age group of zero to six years) is steadily shrinking; and more so in the northern states of India. The said decline in the child sex ratio has continued from 1961 when the figure was 976 to 2011 when the figure became 914. The topmost three states which recorded the highest child sex ratio in the year 2011, were Mizoram (child sex ratio-971) Meghalaya (child sex ratio-970) and Chhattisgarh (child sex ratio-964). The lowest child sex ratio was observed in Haryana (child sex ratio-830), Punjab (child sex ratio-846) and Jammu and Kashmir (child sex ratio-859). In India, there are three fourth districts (461) which have shown a deteriorating CSR in 2001 - 2011. There has been more than fifty (50) points decline in thirty-eight districts and fifty-one districts increase has been twenty (20) points.

During the last five decades, the child sex ratio (0 years to 6 years) is deteriorating increasingly and it is falling more precipitously in states of northern India. In this milieu, the current study also endeavors to analyze the trends of child sex ratio at the district level and study the underlying socio economic disparity in child sex ratio concentrating on Punjab, Madhya Pradesh, Himachal Pradesh, Uttar Pradesh, Haryana and Maharashtra. The selected states of study possess existing child sex ratios lesser than the national average (914). The study also aims at understanding the relationship between Child Sex Ratio (CSR) and the diverse socio cultural and demographic variables. The co-related demographic and socio-economic variables were calculated using the following formulae:

Female Literacy Rate (FLR)

$$FLR = \frac{Flit}{FP6+} * 100$$

Where,

FLR= Female Literacy Rate

Flit = No. of Literate Females

TF6+ = No. of women above 6+ age

Percent of Urban Population:

$$PUP = \frac{U}{P} * 100$$

Where,

PUP= Percent of Urban Population

U = Urban Population of an area and

P = Total Population of an area

Percent of Schedule Caste Population:

$$PSC = \frac{SCp}{p} * 100$$

Where,

PSC= Percent of Schedule Caste Population

SCp = total no. of SC population of an area

P = Total Population of an area

Infant Mortality Rate (IMR):

$$IMR = \frac{Id}{Lb} * 1000$$

Where,

IMR= Infant Mortality Rate

Id = No. of death of Infants less than 1 year in place in a year

Lb = No. of live Births in same place in the given year

Child Mortality Rate (CMR):

$$CMR = \frac{Cd}{Lb} * 1000$$

Where,

CMR= Infant Mortality Rate

Id = No. of death of children less than 5 year in place

Lb = No. of live Births in same place in the given years

Sex Ratio at Birth (SRB):

$$SRB = \frac{Bm}{Bf} * 100$$

Where

SRB= Sex Ratio at Birth

Bm = No. of Male Birth

Bf = No. of Female Birth

Total Fertility Rate (TFR):

TFR = $\sum_{i=15}^{49} \left(\frac{bi}{pi}\right) * K$

Where,

ASBR= each five-year age-specific birth rate

bi= the number of live births registered during the year to mothers of age

pi= Mid-year population of Females of age

K = 1000

Association and correlation of socio-economic indicators and performance of child sex ratio was studied through correlation matrix and multiple regression techniques. In India, the following districts have the lowest child sex ratio(CSR) - Jhajjar of Haryana 774, Sonipat 790, Rewari 784, and Mahendragarh 778 of same state. Out of 15 lowest CSR districts in India, 10 belong to the state of Haryana. In order to ascertain the areas with the highest drop in child sex ratio over a period of twenty years (1991-2011), the difference in the figures were calculated for all the districts of the country. Out of the bottom ten districts, three belonged to Haryana and they were the worst performing districts in the country. These districts were Jhajjar, Rewari and Mahendragarh with a drastic drop of 85, 83 and 74 percentage points.

Correlation Matrix of Child Sex Ratio (CSR) and Socio-Economic Demographic Variables

	CSR	SRB	FLR	PUP	PSC	IMR	CMR	TFR
CSR	1	.94**	-.22**	-.32**	-.25**	.47**	.51**	.17**
SRB	.94**	1	-.21**	-.31**	-.23**	.44**	.52**	.16*
FLR	-.22**	-.21**	1	.48**	0.03	-.60**	-.63**	-.70**
PUP	-.32**	-.31**	.48	1	-0.08	-.30**	-.38**	-.25**
PSC	-.25**	-.23**	0.03	-0.08	1	-0.07	-0.06	0.01

IMR	.47**	.44	-.60**	-.30**	-0.07	1	.89**	**1.** .68**
2. CMR	**3.** .51**	**4.** .52**	**5.** -.63**	**6.** -.38**	**7.** -0.06	**8.** .89**	**9.** 1	**10.** .64**
11. TFR	**12.** .17**	**13.** .16*	**14.** -.70**	**15.** -.25**	**16.** 0.01	**17.** .68**	**18.** .64**	**19.** 1

As stated earlier, a correlation study was undertaken between child sex ratio performance of each state having a CSR value less than the national average and various selected socio economic and demographic variables. This study encompassed 230 districts of the following states – Punjab, Rajasthan, Madhya Pradesh, Uttar Pradesh, Himachal Pradesh and Maharashtra. The correlation study did not point towards one positively or negatively correlated independent and dependent variable. Rather, in one state one independent variable had a negative impact on the dependent variable and in another state the same independent variable either had a positive or a no impact on the dependent variable. The only independent variable that has influenced the child sex ratio strongly in all the states is the sex ratio at birth (SRB). The simple inference then that can be drawn from this analysis is that those states where sex ratio at birth is low, CSR is also low and vice versa is also true. This also points out at an essential corollary that additional female child mortality begins in pre-natal stage of its life instead of the post-natal stages. In those states where SRB is greater than the CSR, the point is clear that birth of girls are taking place and the rationale for reduction in number of females in the populace are more post-natal and less pre-natal in nature. Another myth that is broken by data analysis is that access to education and better amenities result in better social awareness and understanding of equality of sexes. But, the contrary is proven by the data. Female literacy and level of urbanization were taken as indicators of education and access to services and opportunities. Both the stated variables, i.e., female literacy and level of urbanization are negatively connected with child sex ratio. Growing literacy levels, access to technology also results in deteriorating child sex ratios. One tends to presuppose that advancement in literacy and urbanization will eventually result in social progress and a reflection of this would be visible in healthier child sex ratio but reverse is the case. Various authors have contributed it to the available pre-natal detection of sex technology in urban areas and the associated available information.

IV Legal impact assessment of PC and PNDT Act: Investigating the pattern

The oblique sex ratio has been a cruel reality of the Indian society since the eighteenth century. Several laws were enacted to disallow the application of amniocentesis for sex selection which later

transmuted into selective abortion of girl child. During British era, since maximum British administrators were belonging to upper middle strata they found the practice of killing of female child an inherently obnoxious crime, but since this tradition was prevalent amongst the wealthy and powerful. They took the resort in "*shastras*" and ancient Indian text for putting a restrain over it. Slowly and gradually they did away with their cautious approach and legislated Female Infanticide Prevention Act, 1870,[16] which initially was operative in Punjab, Oudh and North-Western Provinces. Further, the aforesaid legislation provided for "special surveillance" over particular communities and lineages, in which the mortality rates amongst the particular groups covered in the Act were monitored with the help of data collected by *chaukidars*, *patwaris* and *mohurrirs*, and the penal action was taken against the people so implicated by the investigators. In addition to this, even census figures also helped in appraising the rate of mortalities of females lying within a particular age group, clan and area. All the deaths of children below one year of age, particularly females were to be recorded and, in an eventuality, where death of a female below six months was reported, the police inquest was to be conducted on spot. One of the very interesting fact about the surveillance made by *chaukidars* was that in such declared villages, both the contingencies, *firstly,* departure of pregnant woman from village; *secondly,* arrival of pregnant women was to be reported to the police station by the *chaukidars,*[17] and more so over, it was mandatory as per the Act that these officials should not be near relative or of same caste.

The PC and PNDT Act passed in the year 1994, was in continuation of these laws. The major highlights of this Act were: it did not specifically banned the abortion of female foetuses but merely banned determination of the sex of the foetus, every facility which was capable of determining the sex of the foetus was to be registered and in case of any violation the doctor as well as the family members of the women were penalized. In the year 2001, India witnessed the first conviction under the Act in the case of *State through District Appropriate Authority-cum-Civil Surgeon, Faridabad* v. *Anil Sabhani, Prop. Anil's Ultrasound Opp. G.H. Palwal, Faridabad*.[18] In same year the census was released and the nation felt the inadequacies of the Act ergo, the Act was amended in 2003 and PC and PNDT Act was formulated. There are chapters on management of pre-natal diagnostic techniques, genetic counseling centers, and registration of genetic counseling centers, central supervisory boards, offences and penalties etc. which form a part of this Act. This Act did not

[16] Government of India set up the Infanticide Committee which exhaustively covered the terms of Act VIII of 1870 precisely. See, Malavika Kasturi, "Law and Crime in India: British Policy and The Female Infanticide Act of 1870", *available at*: https://www.academia.edu/13777785/Law_and_Crime_in_India_British_Policy_and_the_Female_Infanticide_Act_of_1870 (last visited on Dec. 5, 2019).

[17] Malvika Kasturi, "Law and Crime in India: British Policy and the Female Infanticide Act of 1870" 1(2) *IJGS* 169-194 (July-Dec, 1994).

[18] Case No. 295/2 of 2001.

specifically ban the abortion of female foetus but prohibited the exercise of pre natal diagnostic techniques to determine the sex of the foetus however; it allowed the use of these techniques in order to diagnose any genetic abnormalities.[19] Additionally it has also imposed a total ban on any kind of advertisement for pre conception and pre natal determination of sex of the foetus.[20] In the year 2003 while expressing an urgent apprehension towards the working of the Act the Supreme Court in *CEHAT, MAUSAM* and *Sabu Geroge* v. *Union of India*[21] gave instructions for better realization of the Act.[22] In the year 2016 through a writ petition filed in the case of *Voluntary Health Association of Punjab* v. *Union of India*,[23] Dipak Misra, J. again expressed his distress towards the realization of the Act and its provisions. He directed all the authorities to display the total number of births of boys and girls on their websites, strict adherence must be given to sections 22 and 23 of the Act, judicial officers must be trained so that they are sensitive towards the objectives as well as the sundry dimensions of the Act.

Alas! Despite of all these directions of the Supreme Court the Act still suffers from some major lacunas which need to be resolved immediately. The foremost hurdle in the success of the Act lies in its acceptance by the Indian society. It cannot be denied that it is the harsh reality that even in the twenty first century a male child is favored over a female. Moreover the insistence on having a small family coupled with the favoritism of a male child further inflates the pressure of using the sex selection techniques so as to have a desired composition in the family.[24] Another obstacle lies in the fact that the crime of female foeticide is committed behind the closed doors where nobody comes forward to file a complaint against this horrendous act and the only evidences that can be gathered are through decoys which again are not easy to create. As noted by the Supreme Court lack of awareness and information amongst the judicial officers, public prosecutors as well as the lawyers further leads to a delayed justice in cases under the PC and PNDT Act.[25] It was believed that illiteracy and poverty were the major causes resulting in female foeticide but over the period of time it is argued by several authors that selective female foeticide is not related to any of this rather it is manifested more amongst the rich.[26] The implementation and administration under the Act has

[19] The Pre-conception and Pre- natal Diagnostic Techniques (Prohibition of Sex Selection) Act, 1994 (Act 57 of 1994), s. 3A.
[20] *Id.* s. 7.
[21] AIR 2003 SC 3309.
[22] The court while considering the fact that the sex ratio has not improved in spite of the amendment of the Act directed that the authorities need to maintain a record of their meetings, they must publish reports providing information to the general public by way of advertisements or electronic media, The National Monitoring and Inspection Committee must conduct inspection till the effective implementation of the Act.
[23] (2016) 10 SCC 265.
[24] Sushma Sharma, "An Overview on Pre-Natal Diagnostic Techniques Act and its Implementation" 21(10) *IOSR-JHSS* 64 (October, 2016).
[25] *CEHAT, MAUSAM Sabu Geroge* v. *Union of India* (2016) 10 SCC 265.
[26] S.V. Subramanian and D.J. Corsi "Can India Achieve a Balance of Sexes at Birth?" 377 *The Lancet* 1893 (2011); G.N. Allahbadia "The 50 Million Missing Women" 19 *JARG* 411 (2002).

further proved to be ineffective in curbing female foeticide. Problems such as automatic renewal after ninety days of receiving the application of renewal, lackadaisical approach in regular inspection of USG centers, irregularity of documentation of inspection report, inability of tracking system for USG machines etc. are some other complications that are reflected in the Act.

There are some unintended drawbacks of the Act as well. The Act has unfortunately created a road block in the access of medical care for the populace residing in the rural areas. As the Act requires that ultrasound needs to be performed by either a trained radiologist or an obstetrician who has undergone a training for six months, this means that less number of experts are available to perform the diagnostic techniques and this leads to delays in diagnosis and difficulties in the follow up procedure. Moreover, it has imposed a heavy burden on the rural people as they have to commute to lengthy distances to find a registered radiologist or obstetrician to perform an ultrasound.[27] The medical fraternity has further alleged that they are made responsible even for minutest error on their part and the penalties are more stringent than what is required.[28]

When the Act was drafted it was firmly believed that sex selective abortions are morally wrong and need to be completely eradicated from our society however, the census of 2011 shows a completely opposite figure. If soon a full stop is not imposed on this heinous practice then this will lead to an increase in other atrocities on women like human trafficking, gender violence etc.

V The geographical pattern of PC and PNDT Act

In the year December 2016, there were a total of 2316 ongoing Court Cases in different states of India under PC and PNDT Act. Of these, a total of 1746 cases, *i.e.,* 75.38 percent cases belonged to the seven selected states of Maharashtra, Haryana, Uttar Pradesh, Punjab, Rajasthan and Himachal Pradesh. Rajasthan contributed the highest number of cases (641) followed by Maharashtra (572). These two states contributed more than half (52.36 percent) of the total cases registered in the Country.

Number of On-going Court Cases under PC & PNDT Act.		
States	**Court Cases**	**Percentage of Total Cases**
Haryana	190	8.2

[27] Ganjan Phutke *et. al.,* "Ultrasound in Rural India: A Failure of the Best Intentions" *IJME* 2 (2018).
[28] R. Dutta, "Radiologists harassed by PNDT Act, 2001", *available at*: http://www.expresshealthcaremanagement.com (last visited on Oct. 2019); K. M. Dhaduk *et. al.*, "A Study on Doctors' Perspective on PNDT Act", *available at*: http://medind.nic.in/iaj/t09/i2/iajt09i2p160.pdf (last visited on Oct. 11, 2019).

Himachal Pradesh	01	-
Madhya Pradesh	46	1.98
Maharashtra	572	24.69
Punjab	157	6.77
Rajasthan	641	27.67
Uttar Pradesh	139	6.0
Total	**1746**	**75.38**

Source: Lok Sabha Un starred Question No. 3882, dated 24.03.2017

This convincingly point out towards a situation where the states with lowest child sex ratio also garners a large proportion of the total cases under PC & PNDT Act. Sex determination techniques are widely available especially in highly urbanized states like Maharashtra, whereas in Haryana and Rajasthan the age-old patriarchal mindset and social milieu play a dubious role. It therefore reflects towards a very strong social bias against girl child in northern India. The natural advantage provided by the nature to a girl child is reversed through the illegal and ugly usage of technology.

VI Conclusion: Altering the pessimist map

In the last few decades, demographic imbalance has been created due to the rampant exploitation of technology for gender biased sex selection which has emanated from a discriminatory outlook towards female child, deep-rooted prejudice and preference of the male child. The PC and PNDT Act that was passed in 1994 to check the threat of female foeticide by monitoring and prohibiting the practice of sex determination/selection and abortion using pre-natal techniques, has remained largely ineffective. It has failed to impact the sex ratios significantly over the years or to bring about a change in the parochial mindset regarding preference for male child.

Consequently, the 2003 amendment to this law incorporated USG clinics into the ambit of the Act. Under this law, all centers which possess any such equipment (including USG) which can possibly identify sex of foetus pre-conception or pre-natal need to be registered with the suitable authorities

and are liable to be penalized for participating or being involved in determination of the sex of foetus. But a legal impact assessment of the said act after 2003 amendment unfortunately point out to the disturbing fact that though on one hand the number of convictions under the said Act is increasing, on the other hand, the states showing poor child sex ratio, continue to perform poorly.

To make situation worse, the states with poor sex ratio, child sex ratio performance also depict a very high proportion of the convictions under the said Act. These states are actually identified as the epicenters or hotspots of women bias and unequal status of women. CSR as an indicator of discrimination faced by the females focuses on a strong aspect of spatial patterning portrayed through the geographical concentration of skewed CSR and has revealed some noteworthy conclusions:

- The seven contiguous states form the epicenter of low sex ratio at birth, lower child sex ratio and highest proportion of ongoing cases under PC and PNDT Act.
- The districts with lower child sex ratio have widened their reach by expanding in the surrounding districts and the districts with higher child sex ratio have reduced in number during the passing decades.
- The number of cases under the PC and PNDT Act have been rising. This points to a missing link as far as policy implementation is considered.

This data set has revealed only the tip of the iceberg. Only taking the legal recourse to check a multidimensional problem such as that of female foeticide requires more than just legal control. An effective monitoring and inspecting mechanism are required as well as a broader, all encompassing, self-believing, voluntary action on the part of the society where the women find their voice on an equal footing with that of men. Thus, a multi-pronged strategy including schemes and programmes and awareness generation/advocacy measures is needed to build a positive environment for the girl child. One of the steps is to devise gender sensitive policies, provisions and legislation. Though it is a daunting task in the real world as the female voices are being silenced even before entering the world. Various governmental policies and programmes, notably, '*Beti Bachao, Beti Padhao',*[29] '*Sukanya Samriddhi Yojana*'[30] are beacons of hope. More importantly, the widespread acceptability

[29] Beti Bachao Beti Padhao Scheme, *available at*: https://wcd.nic.in/schemes/beti-bachao-beti-padhao-scheme (last visited on Dec. 5, 2019).
[30] Sukanya Samridhi Yojana, *available at*: https://www.india.gov.in/sukanya-samriddhi-yojna (last visited on Dec. 5, 2019).

of efforts of civil society and common men, for example, the '*Piplantri*' village[31] experiment are altering years of pessimistic approaches towards girl child.

[31] Earth Day Network-India, "This Indian village plants 111 trees when a girl is born", *available at*: https://www.earthday.org/2019/11/18/this-indian-village-plants-111-trees-when-a-girl-is-born/ (last visited on Dec. 5, 2019).