

Gender Imbalance in India: A Sociological Study of the Skewed Sex Ratio

Dr. C.Ramanaiah

Academic Consultant, Dept. of Sociology, S.V.University, Titrupati, A.P-517502, Email:
cramana1981@gmail.com

Abstract

Gender imbalance is a critical demographic concern that reflects the status of women and the nature of gender relations within society. India has historically exhibited a skewed sex ratio unfavourable to females, shaped by deeply entrenched socio-cultural norms, economic structures, and institutional practices. This study provides a comprehensive sociological analysis of gender imbalance in India by examining trends in the sex ratio and its underlying determinants, including patriarchy, son preference, gender discrimination, and the misuse of reproductive technologies. Drawing on secondary data from the Census of India, the National Family Health Survey (NFHS), and existing scholarly literature, the study reveals that although the overall sex ratio has shown improvement in recent years, the sex ratio at birth continues to remain significantly imbalanced. This persistent disparity underscores the enduring influence of structural and cultural factors that perpetuate gender inequality. The study concludes that addressing gender imbalance requires not only effective policy implementation but also transformative changes in societal attitudes, gender norms, and power relations.

Keywords

Sex ratio, gender inequality, patriarchy, female foeticide, India, sociological analysis

Introduction

Sex Ratio of India reflects the number of females per 1,000 males in the country. It is one of the most critical indicators of gender equality, social health, and cultural progress. A balanced sex ratio shows that both genders enjoy equal value and care in society. However, if the ratio is skewed in favour of males, it highlights deep-rooted issues such as gender discrimination, selective abortions, and neglect of girl children. Over the years, India has shown improvement, but many challenges still remain. Read on to explore the latest trends using CRS Data, NFHS-5, and Census 2011 to understand the real picture. The sex ratio of India has long been a critical demographic indicator reflecting the balance between the number of females and males in the population. Over the decades, this ratio has been a subject of concern, with noticeable disparities across states and time periods. From the 2011 Census to the latest Civil Registration System (CRS) data, India has seen fluctuating trends influenced by social, cultural, and economic factors.

Gender imbalance, reflected through the skewed sex ratio, is a crucial demographic concern that indicates the status of women and the structure of gender relations in society. Sex ratio, defined as the number of females per 1000 males, serves as a key indicator of both demographic balance and social development. It is not merely a biological outcome but a reflection of socio-cultural norms, economic conditions, and institutional practices that shape survival and well-being (Weeks, 2015; United Nations, 2020). In most developed societies, females tend to outnumber males due to their biological advantage in longevity and resilience; however, India presents a contrasting scenario where this natural advantage is offset by systemic gender bias (Sen, 1990; Dyson & Moore, 1983). The persistence of a skewed sex ratio highlights the intersection of patriarchy, cultural expectations, and unequal resource distribution, making it a deeply sociological issue rather than a purely demographic phenomenon (Kabeer, 1999; Bhasin, 2000).

India has historically exhibited an unfavourable sex ratio, reflecting entrenched gender discrimination embedded within

its social institutions. According to the Census of India (2011), the sex ratio stood at 943 females per 1000 males, showing a marginal improvement from previous decades but still falling short of the natural equilibrium (Registrar General of India, 2011). More recent estimates from the National Family Health Survey (NFHS-5) indicate that the overall sex ratio has risen to approximately 1020 females per 1000 males, suggesting improvements in female survival and life expectancy (IIPS, 2021; NITI Aayog, 2020). However, this apparent progress masks a persistent and troubling reality—the sex ratio at birth remains significantly skewed in favour of males, reflecting continued son preference and gender-biased reproductive behaviour (Jha et al., 2011; Bhat & Zavier, 2007). This contradiction underscores the complexity of demographic change in India, where improvements in adult survival coexist with discrimination at birth and early childhood.

The coexistence of an improving overall sex ratio and a declining child sex ratio presents a paradox that necessitates a sociological interpretation. This imbalance cannot be adequately explained through biological or demographic factors alone but must be understood within the broader framework of patriarchy, gender norms, and socio-economic inequalities (Kabeer, 1999; Das Gupta, 1987). Deep-rooted cultural practices such as son preference, dowry, and patrilineal inheritance continue to influence reproductive decisions and family structures (Srinivasan & Lee, 2004; Sharma, 2005). Furthermore, the misuse of modern medical technologies for prenatal sex determination has reinforced rather than reduced gender bias (Jha et al., 2011). These factors collectively contribute to the persistence of gender imbalance in India, highlighting the need for a comprehensive sociological study that examines both structural and cultural dimensions of the skewed sex ratio (Kaur, 2013; Sen, 1990).

Review of Literature

Scholars have extensively studied the issue of sex ratio imbalance in India. Sen (1990) introduced the concept of “missing women,” highlighting the impact of gender discrimination on female survival. Das Gupta (1987) demonstrated how intra-household discrimination affects female mortality, particularly in northern India. Jha et al. (2011) analyzed trends in sex-selective abortion and found that technological access has exacerbated gender imbalance. Bhat and Zavier (2007) argued that declining fertility combined with son preference intensifies selective abortion practices. Kaur (2013) examined the socio-cultural consequences of skewed sex ratios, including marriage squeeze and trafficking. Feminist scholars such as Bhasin (2000) and Kabeer (1999) have emphasized the role of patriarchy and structural inequalities in shaping gender outcomes. These studies collectively indicate that sex ratio imbalance is a multidimensional issue rooted in social, economic, and cultural contexts.

Objectives of the Study

The present study aims to:

1. Examine the trends and patterns of gender imbalance in India by analysing historical and recent changes in the sex ratio.
2. Analyze the sociological determinants of the skewed sex ratio, including patriarchy, son preference, gender discrimination, and socio-cultural practices.
3. Assess the socio-economic consequences and policy responses related to gender imbalance, and suggest measures for achieving gender equity and demographic balance.

Methodology

The present study is based on secondary data analysis to examine gender imbalance in India with particular reference to the skewed sex ratio. Data has been collected from reliable and authoritative sources, including the *Census of India* (various years), the *National Family Health Survey (NFHS-5, 2019–21)*, and the *Civil Registration System (CRS)*. In addition, relevant information has been drawn from peer-reviewed journals, books, and government reports to ensure a comprehensive understanding of demographic trends and socio-cultural dynamics related to gender imbalance.

The study adopts a descriptive and analytical research design, focusing on the interpretation of existing data within a sociological framework. Descriptive analysis is used to trace patterns and trends in the sex ratio, while analytical methods are employed to examine the underlying determinants such as patriarchy, son preference, and gender discrimination. The study also incorporates comparative insights to understand regional variations, and applies sociological perspectives, particularly feminist and structural approaches, to provide a deeper interpretation of the factors contributing to the skewed sex ratio in India.

Tabli-1: Trends in Sex Ratio in India

Category/ Census Year	1901	1911	1921	1931	1941	1951	1961	1971	1981	1991	2001	2011
Total	972	964	955	950	945	946	941	930	934	927	933	943
Rural	979	971	963	958	953	965	963	949	954	938	946	949
Urban	910	902	895	890	884	860	845	858	879	894	900	929

The analysis of sex ratio trends in India from 1901 to 2011 reveals a long period of decline followed by a gradual recovery (Table-1). The sex ratio decreased from 972 females per 1000 males in 1901 to 927 in 1991, reflecting entrenched gender discrimination and adverse socio-cultural practices. However, a reversal in this trend is observed after 1991, with the sex ratio improving to 943 in 2011 (Registrar General of India, 2011). A significant feature of these trends is the persistent rural–urban disparity, with rural areas consistently exhibiting a higher sex ratio than urban areas. This difference is attributed to migration patterns, access to technology, and varying socio-cultural norms. Despite recent improvements, the data indicates that gender imbalance remains a critical concern in India.

A consistent pattern observed across all census years is that the rural sex ratio remains higher than the urban sex ratio. For instance, in 2011, the rural sex ratio was 949 females per 1000 males, compared to 929 in urban areas. This disparity can be attributed to several socio- demographic factors. One major reason is male-dominated migration, where men move to urban areas in search of employment, thereby reducing the proportion of females in cities. Additionally, urban populations have greater access to modern medical technologies, which has, in some cases, facilitated sex-selective practices, contributing to a lower urban sex ratio. Furthermore, rural areas tend to retain more traditional family structures and social norms, which, despite their limitations, may support relatively higher female survival rates compared to urban contexts.

The overall sex ratio in India declined steadily from 972 in 1901 to 927 in 1991, reflecting increasing gender discrimination, poor female health conditions, and social neglect. However, the trend reversed after 1991, with the sex ratio improving to 943 in 2011 (Registrar General of India, 2011). This improvement can be attributed to better healthcare, awareness, and policy interventions.

State-wise variations

The state-wise distribution of sex ratio in India reveals significant regional disparities shaped by socio-cultural, economic, and demographic factors. According to the Census of India (2011), southern states such as Kerala and Tamil Nadu exhibit relatively favourable sex ratios, reflecting higher levels of literacy, better healthcare, and comparatively progressive gender norms, while northern states like Haryana (877), Punjab, and Jammu and Kashmir (883) continue to show highly skewed ratios due to persistent patriarchy and son preference (Registrar General of India, 2011; Dyson & Moore, 1983). The child sex ratio (0–6 years) further highlights this imbalance, with states such as Mizoram (971), Meghalaya (970), and Chhattisgarh (964) performing well, whereas Haryana (830), Punjab (846), and Jammu and Kashmir (859) report alarmingly low figures, indicating discrimination beginning at birth (Jha et al., 2011). Among Union Territories, Puducherry (1038) and Lakshadweep (946) show favourable ratios, while Daman and Diu (618), Dadra and Nagar Haveli (775), and Chandigarh (818) record extremely low ratios, largely due to male-dominated migration patterns. Additionally, regions such as Bihar, Jammu and Kashmir, and certain UTs have experienced declining sex ratios, underscoring that gender imbalance in India is deeply rooted in structural inequalities, cultural norms, and uneven socio-economic development (Guilmoto, 2012; Kaur, 2013).

Table-2: Trends in Sex Ratio at Birth in India (2013–15 to 2017–19)

Area	2013–15	2014–16	2015–17	2016–18	2017–19
India	900	898	896	899	904
Rural	902	898	900	—	904
Urban	888	890	897	—	906

The findings from NFHS-5 (2019–21) reveal a contrasting pattern in India's sex ratio trends (Table-2). While the overall sex ratio has improved significantly to 1,020 females per 1,000 males, the sex ratio at birth remains skewed at 929, indicating persistent gender bias. Analysis of trends from 2013–15 to 2017–19 shows only marginal improvement in the sex ratio at birth, increasing from 900 to 904 females per 1,000 males. Although urban areas have shown slight improvement in recent years, the overall pattern suggests that deep-rooted socio-cultural factors, including son preference and technological misuse, continue to influence demographic outcomes. This disparity highlights the need for sustained policy interventions and social change to address gender imbalance at its source (IIPS, 2021).

Current Sex Ratio in India

India's population is estimated at around 1.44 billion, with approximately 743.39 million males and 698.29 million females, resulting in a sex ratio of about 106 males per 100 females. In percentage terms, males constitute 51.56% of the population, while females account for 48.44%, creating a gender gap of nearly 45 million more men than women. On the global scale, India ranks 214th out of 236 countries in terms of female-to-male ratio, reflecting a significant demographic imbalance. Although improvements have been observed in recent years, particularly in overall sex ratio estimates, the persistence of a gender gap indicates the continued influence of socio-cultural and economic factors that disadvantage women (United Nations, 2020; World Bank, 2022).

Child Sex Ratio in India

The Child Sex Ratio (CSR), defined as the number of girls per 1,000 boys in the age group 0–6 years, remains a crucial indicator of gender bias in India. According to the Census of India (2011), the CSR declined to 919 from 927 in 2001, highlighting persistent discrimination against the girl child (Registrar General of India, 2011). However, recent data from NFHS-5 (2019–21) shows a modest improvement to 929, while the Sample Registration System (SRS) Statistical Report 2023 indicates a further rise to around 935 (IIPS, 2021; Registrar General of India, 2023). Despite this gradual improvement, significant regional disparities continue, with states like Arunachal Pradesh performing better and states such as Haryana lagging behind. These trends suggest that while policy interventions, awareness programs, and improved healthcare have contributed to progress, deep-rooted socio-cultural preferences for male children still influence demographic outcomes (Jha et al., 2011; Kaur, 2013).

Sex Ratio at Birth: CRS Data (2022)

The Civil Registration System (CRS) provides recent insights into sex ratio at birth across India, revealing considerable regional variation. According to the CRS Report 2022, Bihar recorded the lowest sex ratio at birth at 891 females per 1,000 males, continuing a declining trend from previous years (Registrar General of India, 2022). Other states such as Maharashtra (906), Telangana (907), and Gujarat (908) also reported relatively low ratios, indicating that economic development alone does not eliminate gender bias. In contrast, states like Nagaland (1068), Arunachal Pradesh (1036), and Ladakh (1027) recorded higher and more balanced ratios, suggesting the influence of relatively egalitarian social structures. Overall, the CRS data highlights that gender imbalance in India remains uneven and region-specific, shaped by cultural norms, technological access, and socio-economic conditions (Guilmoto, 2012; IIPS, 2021).

Sex Ratio of India – MoSPI 2023 Report

The “*Women and Men in India 2023*” report published by the Ministry of Statistics and Programme Implementation (MoSPI) provides important projections regarding future demographic trends in India. According to the report, India's population is expected to reach approximately 152.2 crore by 2036, with the proportion of females increasing marginally from 48.5% in 2011 to 48.8%. Correspondingly, the sex ratio is projected to improve from 943 females per 1000 males in 2011 to 952 by 2036, indicating gradual progress toward gender balance. This projected improvement reflects the combined impact of policy interventions, improved healthcare, rising female literacy, and increased awareness regarding gender equality. However, the relatively slow pace of change suggests that deep-rooted socio-cultural factors, including persistent son preference and gender discrimination, continue to influence demographic patterns in India (Ministry of Statistics and Programme Implementation [MoSPI], 2023). The major determinants of India's skewed sex ratio include cultural preference for male children, sex-selective abortions, neglect of female children, and weak implementation of legal frameworks.

Sociological Determinants of Sex Ratio

Cultural Bias and Son Preference:

Preference for sons is deeply rooted in social, economic, and religious beliefs. Sons are considered carriers of lineage and providers of economic security. This bias leads to discrimination against daughters and contributes to a skewed sex ratio.

Patriarchy:

Patriarchal social structures give men dominance in family and society. Inheritance, decision-making, and authority are largely male-centered. This reinforces son preference and sustains gender inequality (Bhasin, 2000; Dyson & Moore, 1983).

Sex-Selective Abortion and Technological Misuse:

Despite legal restrictions, prenatal sex determination is misused in some areas. This results in selective abortion of female foetuses. Access to modern medical technology has intensified this issue (Jha et al., 2011).

Gender Inequality in Resource Allocation:

Girls often receive less nutrition, healthcare, and education than boys. This unequal distribution increases female mortality rates. As a result, fewer girls survive compared to males (Sen, 1990; IIPS, 2021).

Dowry System:

The dowry system imposes financial pressure on families with daughters. This leads to viewing daughters as economic liabilities. Consequently, families tend to prefer male children (Sharma, 2005).

Fertility Decline and Son Preference:

With declining fertility rates, families prefer fewer children. However, there is a strong desire to have at least one male child. This increases the likelihood of sex-selective practices (Bhat & Zavier, 2007).

Cultural and Religious Norms:

Practices such as patrilineal inheritance and ancestor worship favour sons. These deeply embedded norms influence reproductive behaviour. They play a key role in maintaining gender imbalance (Das Gupta, 1987).

Other Factors

Economic and Developmental Factors:

Economic development does not automatically reduce gender bias. In some regions, higher income levels coexist with strong son preference. Cultural values often override economic progress (Kaur, 2013).

Migration and Urbanization:

Male-dominated migration to urban areas affects population composition. Cities often have a higher proportion of men due to employment opportunities. This contributes to rural–urban differences in sex ratio (Bhagat, 2011).

Weak Law Enforcement:

Although laws like the PCPNDT Act exist, their implementation remains weak. Poor monitoring allows illegal practices to continue. This reduces the effectiveness of legal measures in correcting gender imbalance.

Conclusion Line:

Addressing these determinants requires not only strict law enforcement but also long-term social awareness, transformation of gender norms, and empowerment of women.

Theoretical Perspectives Structural Functionalism:

Structural functionalism views society as a system of interrelated parts working together to maintain stability and order. From this perspective, a balanced sex ratio is essential for the proper functioning of social institutions such as family and marriage. A skewed sex ratio disrupts this balance, leading to issues like marriage squeeze and changes in family structures. It may also affect social cohesion and stability over time. Thus, gender imbalance is seen as a dysfunction that disturbs social equilibrium (Parsons, 1951).

Conflict Theory:

Conflict theory emphasizes power inequalities and competition for resources within society. From this perspective, gender imbalance reflects the dominance of men over women in social, economic, and political spheres. Men, as the dominant group, control resources and decision-making processes, often marginalizing women. Practices such as son preference and sex-selective abortion are outcomes of this unequal power structure. Therefore, the skewed sex ratio is seen as a manifestation of structural inequality and social conflict.

Feminist Perspective:

The feminist perspective focuses on patriarchy and systemic gender discrimination as key causes of sex ratio imbalance. It argues that women are disadvantaged in terms of access to resources, opportunities, and decision-making power. Cultural practices such as dowry, son preference, and gendered socialization reinforce this inequality. Feminist scholars highlight the need for empowerment, education, and policy interventions to address these disparities. Thus, gender imbalance is understood as a result of deeply rooted patriarchal structures (Bhasin, 2000; Kabeer, 1999).

Consequences of Skewed Sex Ratio Marriage Squeeze:

A shortage of women leads to difficulties in finding suitable brides. This results in delayed marriages and increased competition among men. It may also lead to changes in traditional marriage patterns (Kaur, 2013).

Trafficking and Forced Marriages:

Gender imbalance increases demand for brides in regions with fewer women. This often leads to trafficking of women for marriage and labor. Such practices violate human rights and exploit vulnerable populations (Jha et al., 2011).

Increase in Violence against Women:

Skewed sex ratio is associated with rising violence against women. This includes harassment, abuse, and exploitation in various forms. Gender inequality further reinforces women's vulnerability (Kabeer, 1999).

Social and Demographic Instability:

Imbalanced sex ratio disrupts family structures and social harmony. It can lead to long-term demographic challenges and population imbalance. This affects overall societal stability and cohesion.

Regional Variations

Sex ratio in India shows clear regional differences influenced by social and cultural factors. Southern states generally perform better due to higher literacy and gender awareness. In contrast, northern states continue to reflect strong patriarchal norms and gender bias.

Government Policies and Interventions

Government initiatives in India have played a crucial role in addressing gender imbalance and improving the sex ratio through legal, financial, and awareness-based interventions. Key among these is the Pre-Conception and Pre-Natal Diagnostic Techniques (PCPNDT) Act (1994), which prohibits sex determination and aims to curb sex-selective abortions. The Beti Bachao Beti Padhao (BBBP) campaign focuses on promoting the value of the girl child through awareness, education, and improved service delivery, while schemes such as Sukanya Samridhi Yojana and Pradhan Mantri Matru Vandana Yojana (PMMVY) provide financial incentives to support the well-being of girls and mothers. Additionally, several states, including Haryana and Punjab, have introduced conditional cash transfer schemes and digital monitoring of pregnancies and ultrasound usage to prevent gender-biased practices. Although these initiatives have contributed to increased awareness and gradual improvement in sex ratio indicators, challenges related to effective implementation, monitoring, and deep-rooted socio-cultural attitudes persist, limiting their overall impact (IIPS, 2021; NITI Aayog, 2020).

Discussion

The findings indicate that the sex ratio in India is shaped by a complex and interrelated set of social, cultural, and economic factors that collectively reinforce gender inequality. While recent data, particularly from NFHS-5, suggests an improvement in the overall sex ratio, this progress remains uneven and does not fully reflect true gender equity. The persistent imbalance in the sex ratio at birth clearly indicates the continued preference for male children, deeply embedded in the patriarchal structure of Indian society. Sons are often perceived as carriers of family lineage, providers of economic security, and performers of religious rites, whereas daughters are frequently viewed as financial liabilities

due to practices such as dowry.

Furthermore, the misuse of reproductive technologies, such as ultrasound for prenatal sex determination, has intensified the problem by enabling sex-selective abortions, particularly among urban and socio-economically advanced groups. This paradox highlights that technological and economic development alone does not guarantee social progress or gender equality; instead, they may reinforce existing biases. In addition, structural inequalities within family systems, cultural norms, and social institutions continue to restrict women's status and survival. Discrimination in nutrition, healthcare, education, and overall investment in girl

children contributes to higher female mortality and reduced representation. Therefore, the skewed sex ratio must be understood as a reflection of broader social inequalities, requiring not only legal and economic measures but also transformative changes in societal attitudes, gender norms, and institutional practices.

Conclusion

The sex ratio in India serves as a crucial indicator of deeply entrenched gender inequality within society. Although recent improvements in the overall sex ratio are encouraging and reflect progress in areas such as healthcare, education, and policy interventions, the continued distortion in the sex ratio at birth highlights the persistent preference for male children and on-going discriminatory practices. This imbalance is not merely a demographic issue but a manifestation of broader socio-cultural norms, patriarchal values, and institutional inequalities that continue to disadvantage women. Addressing this imbalance requires a comprehensive and sustained approach that goes beyond legal provisions. While policies such as the PCPNDT Act are important, their effectiveness depends on strict enforcement and monitoring. Equally essential is the transformation of gender norms through awareness, education, and empowerment of women, particularly in terms of access to education, employment, and decision-making. Ultimately, achieving a balanced sex ratio and true gender equality in India depends on long-term social change, collective responsibility, and committed efforts at both institutional and community levels.

References

1. Bhasin, K. (2000). *Understanding gender*. Kali for Women.
2. Bhat, P. N. M., & Zavier, A. J. F. (2007). Factors influencing the use of prenatal diagnostic techniques and sex ratio at birth in India. *Demography*, 44(3), 477–498.
3. Bhagat, R. B. (2011). Migration and urban population growth in India. *Asian Population Studies*, 7(2), 161–175.
4. Das Gupta, M. (1987). Selective discrimination against female children in rural Punjab, India. *Population and Development Review*, 13(1), 77–100.
5. Dyson, T., & Moore, M. (1983). On kinship structure, female autonomy, and demographic behavior in India. *Population and Development Review*, 9(1), 35–60.
6. Guilmoto, C. Z. (2012). Skewed sex ratios at birth and future marriage squeeze in India. *Demography*, 49(2), 465–490.
7. International Institute for Population Sciences (IIPS), & ICF. (2021). *National Family Health Survey (NFHS-5), 2019–21: India report*. IIPS.
8. Jha, P., Kesler, M. A., Kumar, R., Ram, F., Ram, U., Aleksandrowicz, L., Bassani, D. G., Chandra, S., & Banthia, J. K. (2011). Trends in selective abortions of girls in India: Analysis of nationally representative birth histories from 1990 to 2005 and census data from 1991 to 2011. *The Lancet*, 377(9781), 1921–1928.
9. Kabeer, N. (1999). Resources, agency, achievements: Reflections on the measurement of women's empowerment. *Development and Change*, 30(3), 435–464.
10. Kaur, R. (2013). Mapping the adverse consequences of sex selection and gender imbalance in India. *Economic and Political Weekly*, 48(35), 37–44.
11. Ministry of Statistics and Programme Implementation (MoSPI). (2023). *Women and men in India 2023*. Government of India.
12. NITI Aayog. (2020). *Women and child development report*. Government of India.
13. Parsons, T. (1951). *The social system*. Free Press.

14. Registrar General of India. (2011). *Census of India 2011*. Government of India.
15. Registrar General of India. (2022). *Civil Registration System (CRS) report 2022*. Government of India.
16. Registrar General of India. (2023). *Sample Registration System (SRS) statistical report 2023*. Government of India.
17. Sen, A. (1990). More than 100 million women are missing. *The New York Review of Books*, 37(20), 61–66.
18. Sharma, U. (2005). *Dowry in North India: Its consequences and implications*. Sage Publications.
19. Srinivasan, S., & Lee, G. R. (2004). The dowry system in northern India: Women's attitudes and social change. *Journal of Comparative Family Studies*, 35(1), 25–40.
20. United Nations. (2020). *World population prospects 2019: Highlights*. United Nations Department of Economic and Social Affairs.
21. Weeks, J. R. (2015). *Population: An introduction to concepts and issues* (12th ed.). Cengage Learning.
22. World Bank. (2022). *World development indicators*. World Bank.