



Women, Marriage, and Fertility Trends in India: A Socio-Demographic Study

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Abstract

India has witnessed a remarkable socio-demographic transition in recent decades, particularly in women's marriage and fertility patterns. The interplay of declining fertility rates, rising age at marriage, and shifting reproductive behavior highlights the changing socio-economic status of women. According to MoSPI and NFHS data, the median age of first marriage for women increased from 17.4 years in 2005–06 to 19.7 years in 2019–21, accompanied by a significant decline in early marriages (47% in 2005–06 to 23% in 2019–21). Fertility levels have also undergone sharp decline, with the Total Fertility Rate (TFR) falling from 5.2 in 1971 to 2.1 in 2019, achieving the replacement level. This transition is linked to greater educational attainment, women's participation in the labour force, and wider adoption of family planning. Despite this progress, disparities persist across states, rural–urban areas, and educational levels, where early marriage, adolescent fertility, and unmet need for contraception remain significant concerns. This paper analyses trends in marriage and fertility among Indian women, drawing upon official statistics and national surveys. It examines how socio-cultural practices, health indicators, and educational opportunities influence marriage patterns and reproductive behavior. Furthermore, it highlights the policy interventions such as *Beti Bachao Beti Padhao* and *Sukanya Samridhi Yojana* that have contributed to delaying marriage and empowering young women. The study concludes that while India is moving towards population stabilization, sustained efforts are required to address regional inequalities, ensure gender equity, and promote reproductive rights. Understanding these transitions is essential for designing effective public policies in health, education, and gender empowerment to achieve sustainable development.

Keywords: Women, Marriage, Fertility, Socio-Demographic Transition, India

Introduction

Marriage and fertility are two fundamental socio-demographic processes that shape the structure and growth of any society. In India, both have traditionally been deeply influenced by cultural norms, religious practices, and socio-economic conditions. Over the past few decades, however, India has experienced a remarkable demographic transition characterized by a decline in fertility rates, a gradual rise in the age at marriage, and a transformation in women's roles within households and society. These changes not only reflect improvements in women's education, health, and empowerment but also signal larger shifts in population dynamics and development trajectories.

According to MoSPI and NFHS data, India's median age at first marriage for women has increased from 17.4 years in 2005–06 to 19.7 years in 2019–21, while the share of women aged 20–24 married before the legal age of 18 has halved from 47 percent in 2005–06 to 23 percent in 2019–21

MoSPI.

Fertility patterns also exhibit a sharp decline, with the Total Fertility Rate (TFR) falling from 5.2 in 1971 to 2.1 in 2019, reaching replacement level. Despite these improvements, considerable disparities remain across states, between rural and urban populations, and among different socio-economic groups. States such as Bihar and Madhya Pradesh continue to record lower age at marriage and higher fertility rates compared to southern states like Kerala and Tamil Nadu.

These demographic shifts hold significant implications for women's health, family well-being, and national development. Early marriage and adolescent fertility are associated with higher risks of maternal mortality, infant mortality, and intergenerational poverty. Conversely, delayed marriage and reduced fertility are linked to better educational attainment, higher female labour force participation, and improved child health outcomes. Understanding the evolving patterns of marriage and fertility among women is thus essential for policymakers, as it provides insights into population stabilization, gender equity, and sustainable development.

This study aims to examine the trends, determinants, and implications of women's marriage and fertility behavior in India. Using official data from MoSPI, Census, and NFHS surveys, the paper explores how education, health, cultural practices, and policy interventions are shaping women's demographic choices. The analysis not only highlights progress achieved so far but also identifies persistent challenges and regional inequalities that need to be addressed in order to achieve equitable and inclusive development.

Literature Review

India has experienced a sustained socio-demographic transition over recent decades: age at marriage has risen, fertility has fallen to near-replacement levels, and reproductive behaviour has shifted alongside improvements in education, health services and family-planning uptake. These trends, documented by national surveys and summarized in the MoSPI synthesis of NFHS, SRS and Census data, frame current debates on gender, development and population policy in India.

A central finding in recent literature is the steady increase in women's median age at first marriage. MoSPI reports that for the 25–29 age cohort the median rose from 17.4 years in 2005–06 to 19.7 years in 2019–21, with the share of women aged 20–24 married before age 18 halving from 47% to 23% across the same period. This postponement of marriage is visible in both rural and urban areas but exhibits sharp state-level contrasts, reflecting varying socio-economic contexts and the effectiveness of local interventions.

Parallel to delayed marriage, fertility decline in India is both dramatic and well-documented. Total Fertility Rate (TFR) fell from about 5.2 in 1971 to approximately 2.1 in 2019, with urban TFR (≈ 1.7) now substantially below rural TFR (≈ 2.3). Age-specific fertility rates have shifted downward across cohorts, and adolescent fertility has fallen markedly — supporting the conclusion that delayed marriage and expanded contraception have combined to reduce births among the young. These macro trends have important implications for population ageing and the timing of the demographic dividend.

Education consistently emerges in empirical studies as a key determinant of both marriage timing and fertility behaviour. The MoSPI report highlights that women with 12 or more years of schooling have a substantially higher median age at first marriage (by about 5.5 years) compared to women with no schooling; broader rises in female literacy and higher education enrolment correlate with falling fertility and later family formation. The education–fertility link operates through multiple pathways — delayed entry into marriage and childbearing, higher aspirations and labour force participation, and improved access to reproductive knowledge and services.

Family planning policies and contraceptive uptake are proximate drivers of fertility decline. NFHS-based summaries reported by MoSPI show a rise in Contraceptive Prevalence Rate (CPR) among currently married women from 54% (2015–16) to 67% (2019–21); modern methods predominate, although female sterilization remains the largest single method. Nevertheless, unmet need for contraception persists—

particularly among adolescents and young women—indicating gaps in access, method choice, and youth-friendly services. This mixed picture explains both the progress in lowering TFR and the continuing programmatic challenges.

Health and nutritional status interact with marriage and fertility outcomes. High prevalence of anaemia among adolescent girls (MoSPI reports about 59% anaemia in women aged 15–19) and substantial undernutrition among youth point to health vulnerabilities that both result from and contribute to early childbearing and poor maternal–child outcomes. Literature emphasizes that reducing adolescent anaemia and improving adolescent health services are essential complements to delaying marriage and increasing contraceptive coverage.

Regional and socio-economic heterogeneity is a persistent theme. Southern states and several smaller UTs tend to show earlier attainment of low fertility and higher marriage ages, while states such as Bihar and Madhya Pradesh continue to exhibit earlier marriages and higher adolescent fertility. Urban–rural and education-based disparities remain salient, which means national averages conceal important subnational patterns that policy must target.

Finally, policy evaluations in the literature point to the positive role of targeted interventions—cash incentive schemes, campaigns like *Beti Bachao Beti Padhao*, and expanded reproductive-health services—in accelerating desirable trends (delayed marriage, institutional deliveries, higher contraceptive use). Still, researchers call for more micro-level, longitudinal and qualitative work to unpack causal pathways (for example, how schooling alters fertility preferences) and rigorous impact assessments of specific programmes in lagging regions. MoSPI's aggregated evidence provides a strong baseline but underscores the need to address adolescent unmet need, regional inequities, and the intersections of education, violence, and reproductive health.

Study Area

The present study focuses on India, the second most populous country in the world, with a population of 1.21 billion recorded in the 2011 Census and projected to reach 1.36 billion in 2021. India's demographic profile is characterized by a large youth population, declining fertility rates, and wide regional variations in marriage and reproductive behaviour. With nearly 27.3 percent of its population aged 15–29 years, India is considered one of the youngest countries globally, providing both opportunities and challenges for socio-economic development. The country is administratively divided into 28 states and 8 Union Territories, exhibiting substantial diversity in terms of culture, economy, education, health infrastructure, and demographic indicators. Marriage and fertility trends vary sharply across these regions. For instance, southern states such as Kerala and Tamil Nadu report higher median ages at marriage and lower fertility levels, while northern and eastern states such as Bihar, Uttar Pradesh, and Madhya Pradesh continue to experience earlier marriages and relatively higher fertility. Urban–rural differences are also significant: urban areas generally show delayed marriage, lower fertility, and higher contraceptive use compared to rural areas. This heterogeneity makes India a valuable case study for analysing women's marriage and fertility trends in a socio-demographic context. National-level data masks these regional contrasts, which have important implications for policy interventions. By relying on official sources such as the National Family Health Survey (NFHS), Census of India, Sample Registration System (SRS), and Ministry of Statistics and Programme Implementation (MoSPI) reports, the study area encompasses both macro-level (all-India) and micro-level (state and rural–urban) dimensions. Thus, India serves not only as a demographic laboratory for studying transitions in marriage and fertility but also as a critical context for evaluating the impact of education, health, and policy initiatives on women's socio-demographic outcomes.

Aims

The primary aim of this study is to analyze the changing patterns of women’s marriage and fertility trends in India, and to understand their socio-demographic determinants and implications for population stabilization, gender equity, and sustainable development.

Objectives

1. To analyze the trends in women’s age at marriage and fertility patterns in India using Census, NFHS, and MoSPI data, with emphasis on temporal changes.
2. To examine the influence of education and socio-economic factors on marriage timing and fertility behaviour among women.
3. To identify regional and rural–urban disparities in marriage and fertility trends and assess their implications for population stabilization and women’s empowerment.

Methodology

This study is descriptive and analytical in nature, based entirely on secondary data sources including the Census of India (1991, 2001, 2011), National Family Health Surveys (NFHS-3, NFHS-4, NFHS-5), Sample Registration System (SRS), and MoSPI reports. Key variables examined are the median age at first marriage, proportion of women married before 18 years, Total Fertility Rate (TFR), Age-Specific Fertility Rate (ASFR), adolescent fertility rate, contraceptive prevalence, and unmet need for family planning, along with socio-economic indicators such as education, literacy, and rural–urban residence. Trend analysis has been used to study changes in marriage and fertility behaviour over time (1971–2019 for fertility; 2005–2021 for NFHS-based marriage data), while comparative analysis highlights rural–urban and inter-state disparities (e.g., Bihar and Uttar Pradesh vs. Kerala and Tamil Nadu). The study also explores associations between women’s education and demographic outcomes and reviews the role of government policies such as *Beti Bachao Beti Padhao* and family planning initiatives. The scope covers all states and Union Territories of India, though limitations exist due to reliance on secondary data and the unavailability of some micro-level cultural determinants.

Results and Discussion

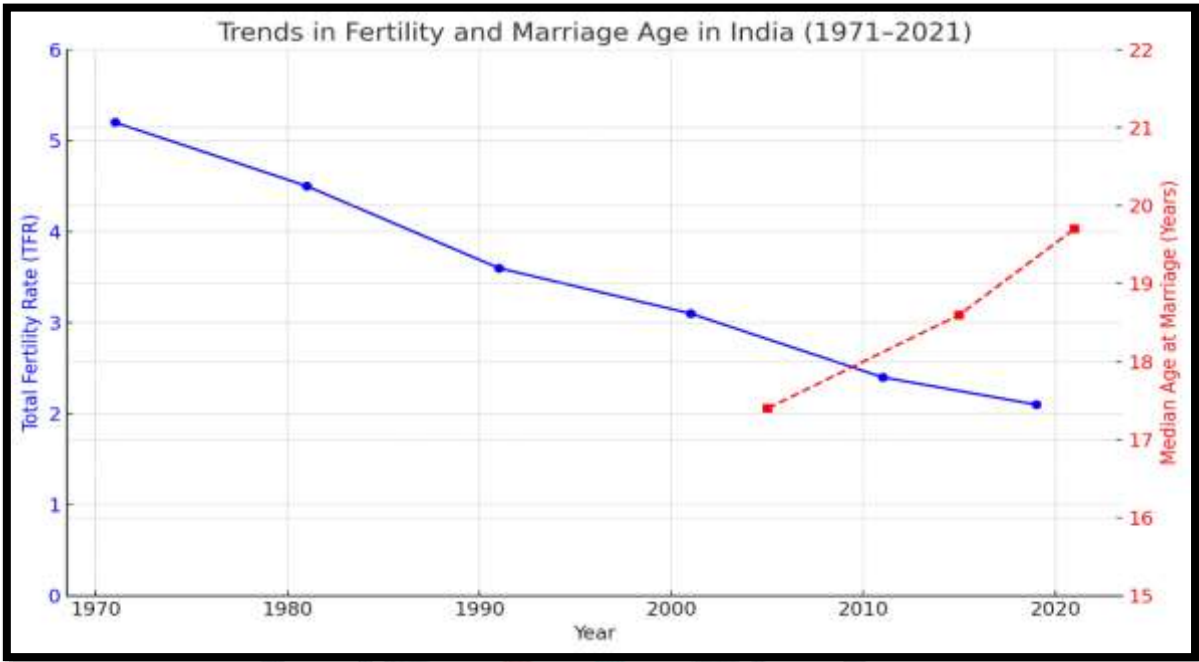
1. Marriage Age Trends

India has witnessed a steady rise in the median age at first marriage among women. For the 25–29 cohort, the median rose from 17.4 years in 2005–06 to 19.7 years in 2019–21. The share of women married before 18 years declined sharply from 47.4% in 2005–06 to 23.3% in 2019–21.

Table 1: Trends in Marriage and Fertility Indicators (MoSPI/NFHS)

Indicator	2005–06	2015–16	2019–21
Median age at first marriage (women 25–29)	17.4	–	19.7
Women 20–24 married before 18 (%)	47.4	26.8	23.3
Total Fertility Rate (TFR)	–	2.3	2.1
TFR (Urban)	–	–	1.7
TFR (Rural)	–	–	2.3
Adolescent Fertility Rate (15–19 years)	–	–	10.6

Contraceptive Prevalence Rate (CPR, %)	—	54.0	67.0
Female literacy rate (%)	—	—	64.7
Anaemia prevalence in adolescent girls (%)	—	—	59.0



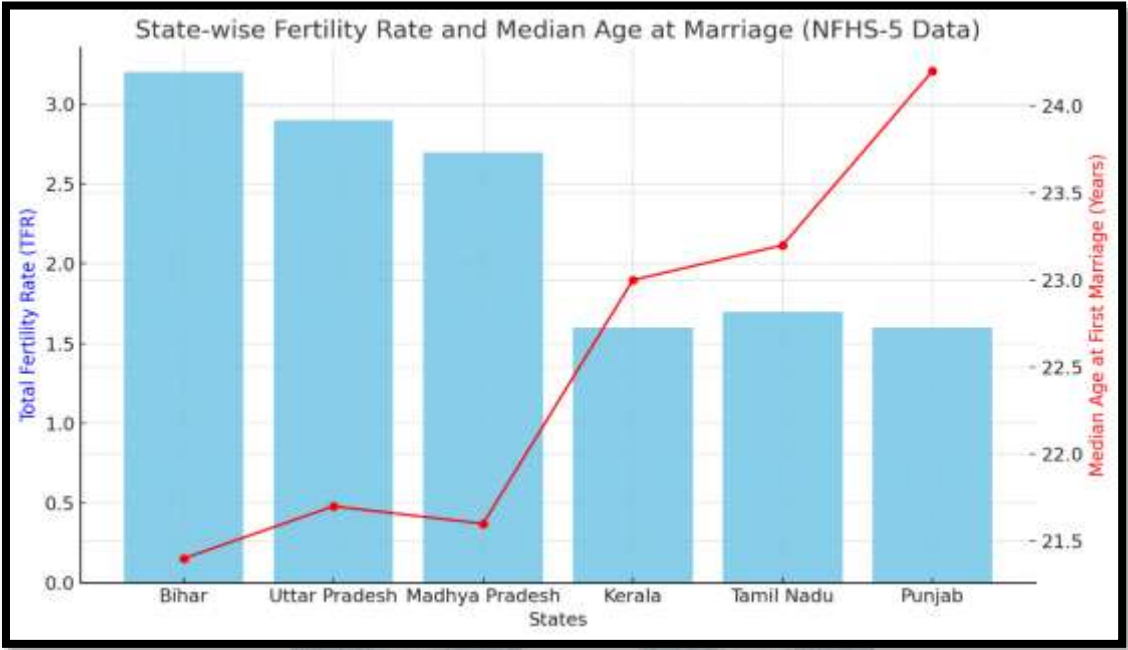
These results suggest that delayed marriage is becoming a nationwide trend, largely due to increasing educational attainment and greater awareness. However, northern and eastern states like Bihar and Uttar Pradesh continue to lag behind the national average.

2. State-wise Variations

Marriage and fertility behaviours differ widely across states. Bihar and Uttar Pradesh report lower marriage ages and higher fertility rates, whereas Kerala, Tamil Nadu, and Punjab show advanced demographic transition.

Table 2: State-wise Marriage and Fertility Indicators (2019)

State	Median Age at First Marriage (years)	TFR
Bihar	21.4	3.2
Uttar Pradesh	21.7	2.9
Madhya Pradesh	21.6	2.7
Kerala	23.0	1.6
Tamil Nadu	23.2	1.7
Punjab	24.2	1.6



This table highlights sharp regional contrasts. While southern states reached replacement fertility decades ago, states like Bihar still have TFR above 3. These disparities underline the need for state-specific policy approaches rather than a one-size-fits-all strategy.

3. Education and Fertility Linkages

Education strongly influences both marriage age and fertility outcomes.

Table 3: Education, Marriage, and Fertility Linkages (NFHS-5)

Education Level	Median Age at First Marriage (years)	Mean Children Ever Born (Women 40–49)
No schooling	17.5	3.8
Primary incomplete	18.2	3.2
Secondary	20.1	2.4
12+ years schooling	23.0	1.8

The data clearly demonstrate that women with higher education delay marriage by about 5–6 years and have fewer children. Education thus emerges as the most powerful determinant in lowering fertility and transforming demographic behaviour.

4. Contraceptive Method Mix

Contraceptive adoption has improved, but it remains heavily skewed toward permanent methods.

Table 4: Contraceptive Method Mix in India (NFHS-5)

Method	Prevalence among married women (15–49, %)
Female sterilization	37.9
Male sterilization	0.3
Condom/Nirodh	9.5
Pill	5.1
IUD/PPIUD	2.1

Other traditional	10.3
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While CPR has increased to 67%, the dominance of female sterilization reveals a lack of spacing method adoption. Limited male participation and inadequate youth-friendly services hinder a balanced contraceptive method mix, especially among adolescents and newly married couples.

5. Health and Nutrition Concerns

Despite progress in marriage and fertility trends, health outcomes remain a challenge. Anaemia affects nearly 59% of adolescent girls (15–19 years), making early pregnancy riskier and impacting maternal–child health outcomes. Nutritional deficits therefore undermine the demographic advantages gained from delayed marriage and fertility decline.

Addressing anaemia, malnutrition, and reproductive health through targeted adolescent health programmes is essential to sustain the progress India has achieved in marriage and fertility transitions.

Key Findings

The study reveals that the median age at first marriage among women in India has increased significantly, reflecting progress in delaying marriage. For the 25–29 cohort, the age rose from 17.4 years in 2005–06 to 19.7 years in 2019–21, while the proportion of women aged 20–24 married before 18 declined from 47.4 percent to 23.3 percent during the same period. Although this indicates a positive trend, early marriage continues to persist in several northern and eastern states such as Bihar and Madhya Pradesh, highlighting regional disparities.

Another key finding is the steady decline in fertility levels across India. The Total Fertility Rate (TFR) has reached the replacement level of 2.1 in 2019–21, falling from 2.3 in 2015–16 and 5.2 in 1971. Urban areas record a much lower fertility rate (1.7) compared to rural areas (2.3), suggesting that socio-economic conditions and access to healthcare significantly influence fertility behaviour. Southern states such as Kerala, Tamil Nadu, and Punjab have already attained below-replacement fertility, whereas Bihar and Uttar Pradesh continue to report high fertility rates above 2.7.

The analysis confirms that education plays a decisive role in shaping marriage and fertility outcomes. Women with 12 or more years of schooling marry at a median age of 23 years compared to 17.5 years among women with no schooling. Fertility also follows this educational gradient, with uneducated women reporting an average of 3.8 children, while highly educated women report only 1.8 children. This clearly establishes the link between education, delayed marriage, and reduced fertility.

The findings also highlight a rise in contraceptive use, with the Contraceptive Prevalence Rate (CPR) increasing to 67 percent in 2019–21. However, the contraceptive method mix remains skewed toward female sterilization, which accounts for 37.9 percent of usage. Reversible methods such as condoms (9.5%), pills (5.1%), and IUDs (2.1%) remain underutilized, indicating a lack of diversity in contraceptive choices and limited male participation.

Finally, while adolescent fertility has declined to 10.6 births per 1,000 women aged 15–19 years, health vulnerabilities among adolescent girls remain high. Nearly 59 percent of adolescent girls suffer from anaemia, posing serious risks to maternal and child health. This demonstrates that improvements in marriage and fertility must be complemented by targeted interventions in health and nutrition. Overall, the study concludes that India is moving steadily towards demographic stabilization, but persistent inequalities across states, education groups, and health outcomes need urgent policy attention.

Policy Recommendations

The findings of this study highlight the need for state-specific and multidimensional policy interventions to address disparities in marriage and fertility trends in India. First, promoting universal secondary and higher education for girls is essential to delay marriage and reduce fertility. Educational attainment has been shown to strongly influence women's age at marriage and reproductive behaviour, and policies must focus on school retention, scholarships, and conditional cash transfers to encourage families to keep girls in school, especially in high-fertility states such as Bihar, Uttar Pradesh, and Madhya Pradesh.

Second, there is an urgent need to strengthen adolescent health and nutrition programmes. With nearly 59 percent of adolescent girls suffering from anaemia, government initiatives such as *Anaemia Mukh Bharat* must be scaled up through school-based health screenings, mid-day meal improvements, and micronutrient supplementation. Addressing adolescent health will not only improve reproductive outcomes but also reduce risks associated with early pregnancies and maternal mortality.

Third, contraceptive diversity and accessibility must be improved. Although contraceptive prevalence has risen to 67 percent, the heavy reliance on female sterilization highlights gaps in family planning services. Expanding the availability and awareness of reversible methods such as condoms, pills, and intrauterine devices, alongside strengthening youth-friendly health centres, will empower young couples to make informed reproductive choices. Encouraging male participation in family planning through awareness campaigns and incentives is equally crucial to reducing the burden on women.

Fourth, policies must directly tackle regional disparities in marriage and fertility behaviour. States with persistently high fertility rates should receive targeted interventions combining stricter enforcement of child marriage laws, expansion of health infrastructure, and culturally sensitive community programmes. Best practices from states like Kerala and Tamil Nadu, where fertility has already fallen below replacement levels, can be adapted and replicated in lagging regions.

Finally, empowering women through economic opportunities is central to sustaining demographic progress. Expanding women's participation in the labour force through vocational training, microfinance support, and safer workplaces will increase their decision-making power within households and reduce dependence on early marriage as a social security strategy. Alongside this, the effective implementation of the Child Marriage Prohibition Act must be ensured through monitoring at the district level and greater involvement of local governance institutions.

In conclusion, policies addressing marriage and fertility must not only focus on demographic targets but also integrate education, health, empowerment, and regional equity. Only through a holistic approach can India sustain its demographic transition and harness the potential of its youth population for long-term development.

Conclusion

This study clearly demonstrates that India is undergoing a profound socio-demographic transformation, reflected in the rising age at marriage, the steady decline in fertility, and the gradual shift towards population stabilization. The increase in the median age at first marriage and the reduction in early marriages signify important progress in empowering women and protecting their health and rights. Similarly, the achievement of replacement-level fertility marks a historic turning point in India's demographic journey, positioning the country closer to stabilizing its population growth.

At the same time, the analysis underscores that these gains are unevenly distributed across regions and social groups. Southern states such as Kerala and Tamil Nadu have already moved into a phase of low fertility and delayed marriage, while states like Bihar, Uttar Pradesh, and Madhya Pradesh continue to experience higher fertility and earlier marriages. Rural-urban divides, educational disparities, and socio-economic

inequalities further shape these patterns, making it clear that national averages mask significant internal variations.

Education emerges as the single most powerful factor in shaping women's marriage and fertility choices. Women with higher levels of schooling marry several years later and have fewer children, underscoring the transformative role of education in advancing demographic and social development. However, persistent reliance on female sterilization as the dominant form of contraception and the continued prevalence of adolescent anaemia highlight critical gaps in family planning services, health interventions, and gender equity.

In conclusion, while India has made remarkable progress in its demographic transition, the challenge lies in consolidating and sustaining these gains through inclusive, regionally sensitive, and gender-responsive policies. Addressing early marriage, diversifying contraceptive options, improving adolescent health, and expanding educational and economic opportunities for women are not just demographic imperatives but also crucial steps toward achieving gender equality, social justice, and sustainable development. India's future demographic trajectory will depend on how effectively these interventions are designed and implemented to ensure that the benefits of progress reach all sections of society.

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