# India's Population Growth and Fertility

**Background**

India, with a current population size of 1.37 billion, has the second largest population in the world. By 2027, India is expected to overtake China to become the most populous country (UN World Population Prospects 2019)[1]. At the same time, evidence also suggests a downward trend in population growth rate. An analysis of the Indian Census data on population confirms a declining growth rate over the decades among all religious groups. The **decadal growth rate** i.e. the population growth rate over the 10-year period, **declined** from 21.5% over 1991-2001 to 17.7% in 2001-2011. (Census 2011).

The Total Fertility Rate-TFR, the average number of children born to a woman, which was as high as 6 or more in 1950s came down to 2.2 in 2015-16[2]. India's overall population size will not shrink immediately as the country is experiencing a *population momentum* as a result of a demographic transition. In short, India has a high proportion (about 30.9%) of young persons in the age 10-24 years[3], who are in reproductive age group or will soon be. Even if this cohort produces one or two children per couple there will still be a quantum increase in total population because of their high number. Thus, India with its large proportion of young persons will take some time to stablise its population.

**Drivers of Population Growth**

- The ***population momentum,*** due to large young population being in childbearing years, accounts for 65% of projected population increase[4]. The only way to slow down the momentum is to delay age at marriage, delay the first pregnancy and ensure spacing between births.
- Higher fertility due to ***unmet need for contraception,*** which is the disconnect between a woman's desired fertility and access to family planning services or contraceptive use
- ***High desired fertility***: This is caused by several factors, including parents giving birth to more children than they actually want, to compensate for high rates of infant mortality; the low status of girls and strong preference for sons.

## 1. Trend Analysis of key demographic indicators

### 1.1. Trend of decadal population growth in India

Post-independence, India experienced a steady growth from 1941 through 1971. It then started showing signs of slowing down since 1981. Better healthcare and improved disease prevention and management significantly increased life expectancy accompanied by steep fall in mortality over the years. The average annual exponential growth in population declined from 2.2% in 1971-81 to 1.6% in 2001-2011 period. Efforts by the national family planning programme had considerable impact on reducing fertility.

**Table 1. Trend in population growth rate over the decades**

| Census Year | Population | Percent Change Between Censuses | Annual Growth Rate (percent) |
|---|---|---|---|
| 1951 | 36,10,88,090 | 13.3 | 1.3 |
| 1961 | 43,92,34,771 | 21.6 ↑ | 2.0 |
| 1971 | 54,81,59,652 | 24.8 ↑ | 2.2 |
| 1981 | 68,33,29,097 | 24.7 ↑ | 2.2 |
| 1991 | 84,64,21,039 | 23.9 ↓ | 2.2 |
| 2001 | 1,02,87,37,436 | 21.5 ↓ | 2.0 |
| 2011 | 1,21,01,93,422 | 17.6 ↓ | 1.6 |

*Source: Census 2011*[5]

### 1.2. Population growth amongst religious groups

According to 2011 Census, India's population comprises of 79.8% Hindus, 14.2% Muslims, 2.3% Christians and 1.7% Sikhs[6]. Decadal growth rates are declining among all religious groups; it has been sharper among Muslims than among Hindus over the last three decades. For instance, the decline in decadal growth rate during the last two census exercises (2001 and 2011) was 4.7 percentage points for Muslims as against 3.1 for Hindus. During 2001-11, a steep decline was noted in the population growth rate for Jains (20.5 percentage points), Buddhists (16.7 percentage points), Sikhs (8.5 percentage points) and Christian (7 percentage points).

**Table 2. Decadal growth rate by religious groups and their percentage share in the total population**

| Religious Groups | Decadal Growth Rate in % | | | Share in total Population | | |
|---|---|---|---|---|---|---|
| | 1981-1991 | 1991-2001 | 2001-2011 | 1991 | 2001 | 2011 |
| Overall | 23.9 | 21.5 | 17.7 | | | |
| Hindus | 22.7 | 19.9 | 16.8 | 81.5 | 80.5 | 79.8 |
| Muslims | 32.9 | 29.3 | 24.6 | 12.6 | 13.4 | 14.2 |
| Christians | 17.7 | 22.5 | 15.5 | 2.3 | 2.3 | 2.3 |
| Sikhs | 25.5 | 16.9 | 8.4 | 1.9 | 1.9 | 1.7 |

*Source: Census of India (1991-2011)*

**the other religious groups comprise of a very small proportion of the total population and therefore their decadal growth rates and share in total population is not very significant.*

## 2. Trend in Total Fertility Rate in India

### 2.1. Decadal changes in Total Fertility Rate (TFR) in India

According to the National Family Health Survey (NFHS) data, the TFR has gone down from 3.4 in 1992-93 to 2.2 in 2015-16 (see Fig. 1), which is almost within reach of the TFR goal of 2.1 as envisaged by Government of India's National Population Policy 2000.

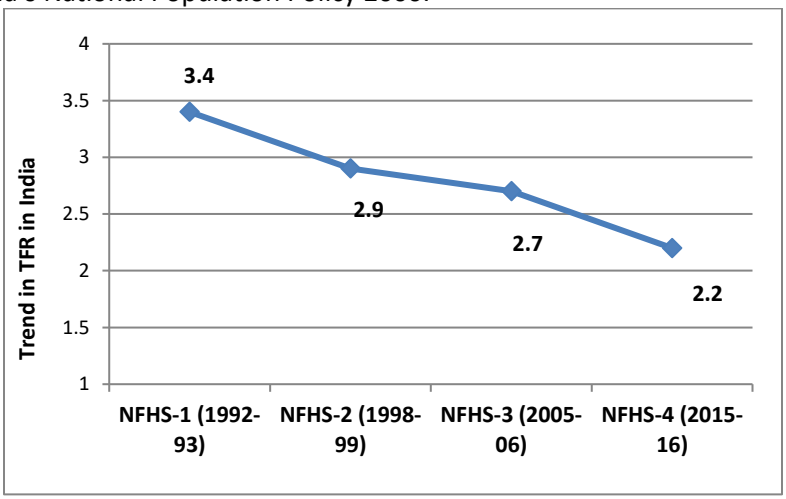


*Fig 1. Trend in Total Fertility Rate in India*

**Total Fertility Rate by geography and religion:**

It is observed that the TFR is declining among every religious group. The steepest decline in TFR (from NFHS 2005-06 to 2015-16) was observed among Muslims, which was by 0.8 percentage points, followed by the Hindus at 0.5, the Sikhs at 0.4, and the Christians at 0.3 percentage points (see Fig. 2).

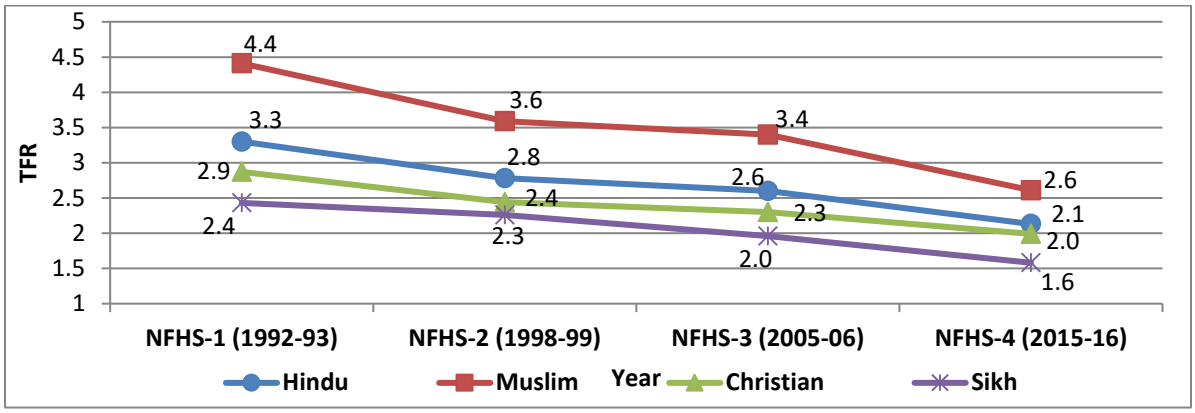


*Fig 2. Trend in Total Fertility Rate by religion*

**Decadal changes in the Total Fertility Rate in Indian states:**

- Similarly, from 2005-06 to 2015-16, all states but Andhra Pradesh, have been showing a decline in TFR. As per NFHS-4 (2015-16), Bihar has the highest TFR (3.4) and Sikkim, the lowest (1.2). (For details, see Annexure 1).
- The highest rate of decrease in TFR was observed in Uttar Pradesh, which was by 1.1 (from 3.8 in NFHS-3 to 2.7 in NFHS-4 followed by Sikkim (see Annexure 1).

**Conclusion**

The demographic changes in the country are along expected lines. The falling fertility rate among all religious groups in the past decades is attributed to better primary education, access to healthcare services and higher life expectancy. For instance, decline in fertility rate was highest among Muslims and Christians in Kerala, a state that has better literacy outcomes. With increased access to education, economic and other development opportunities, fertility decline is the natural demographic phenomenon.

If we look at successful Family Planning programmes across the world, both Indonesia and Bangladesh, which are Muslim dominated countries, have outperformed India in terms of bringing down the birth rates. A combination of factors, including higher levels of female education, greater employment opportunities and access to a bigger basket of contraceptive choices have made a difference. It is clear that population dynamics is not an issue of religion, culture or one group versus another. In order to maintain a decreasing fertility rates, it is critical that development interventions are geared towards girls education with a focus on gender equity, economic development and access to family planning services, irrespective of culture or religion.

**Annexure 1: TFR and wanted TFR in Indian states and decadal difference**

| State | Total Fertility Rate | | Total Wanted Fertility | |
|---|---|---|---|---|
| | 2015-16 | Decadal Decrease in TFR | 2015-16 | Decadal Decrease in Total Wanted Fertility |
| Sikkim | 1.2 | 0.85 | 0.9 | 0.3 |
| Arunachal Pradesh | 2.1 | 0.93 | 1.6 | 0.7 |
| Uttar Pradesh | 2.7 | 1.08 | 2.1 | 0.2 |
| Nagaland | 2.7 | 1 | 2.3 | 0.4 |
| Madhya Pradesh | 2.3 | 0.8 | 1.8 | 0.3 |
| Rajasthan | 2.4 | 0.81 | 1.8 | 0.4 |
| Tripura | 1.7 | 0.54 | 1.5 | 0.1 |

| State | Total Fertility Rate | | Total Wanted Fertility | |
|---|---|---|---|---|
| | 2015-16 | Decadal Decrease in TFR | 2015-16 | Decadal Decrease in Total Wanted Fertility |
| Haryana | 2.1 | 0.64 | 1.6 | 0.5 |
| Jharkhand | 2.6 | 0.76 | 2.1 | 0 |
| West Bengal | 1.8 | 0.5 | 1.5 | 0.2 |
| Mizoram | 2.3 | 0.59 | 2.2 | 0.5 |
| Meghalaya | 3 | 0.76 | 2.8 | 0.3 |
| Kerala | 1.6 | 0.37 | 1.5 | 0.3 |
| Uttarakhand | 2.1 | 0.48 | 1.6 | 0.2 |
| Punjab | 1.6 | 0.37 | 1.4 | 0.1 |
| Delhi | 1.8 | 0.35 | 1.4 | 0.2 |
| Gujarat | 2 | 0.39 | 1.5 | 0.3 |
| Jammu & Kashmir | 2 | 0.37 | 1.7 | -0.1 |
| Chhattisgarh | 2.2 | 0.39 | 1.9 | 0.2 |
| Bihar | 3.4 | 0.59 | 2.5 | -0.1 |
| Odisha | 2.1 | 0.32 | 1.7 | 0.1 |
| Karnataka | 1.8 | 0.27 | 1.4 | 0.2 |
| Maharashtra | 1.9 | 0.24 | 1.6 | 0.1 |
| Assam | 2.2 | 0.21 | 1.8 | 0 |
| Manipur | 2.6 | 0.22 | 2.3 | 0 |
| Goa | 1.7 | 0.13 | 1.4 | 0.1 |
| Tamil Nadu | 1.7 | 0.1 | 1.5 | -0.1 |
| Himachal Pradesh | 1.9 | 0.06 | 1.5 | 0 |
| Andhra Pradesh | 1.8 | -0.04 | 1.6 | -0.1 |
| Chandigarh | 1.6 | | 1.2 | |
| Dadra & Nagar Haveli | 2.3 | | 1.8 | |
| Daman & Diu | 1.7 | | 1.3 | |
| Andaman & Nicobar Islands | 1.4 | | 1.3 | |
| Lakshadweep | 1.8 | | 1.6 | |
| Puducherry | 1.7 | | 1.6 | |
| Telangana | 1.8 | | 1.6 | |
| **All India** | **2.2** | **0.5** | **1.8** | **0.1** |

*Source NFHS-3 & 4*

[1] UN World Population Prospects 2019. http://164.100.24.220/loksabhaquestions/annex/173/AU4372.pdf

[2] International Institute for Population Sciences (IIPS) and ICF. 2017. National Family Health Survey (NFHS-4), India, 2015-16: Mumbai: IIPS. http://rchiips.org/nfhs/factsheet_NFHS-4.shtml

[3] Census 2011

[4] https://population.un.org/wpp/Publications/Files/PopFacts_2017-4_Population-Momentum.pdf

[5] http://www.censusindia.gov.in/2011census/PCA/A2_Data_Table.html

[6] https://www.census2011.co.in/religion.php