

A Brief

**‘Implications of Emerging Demographic Scenario**  
*based on the provisional results of Census of India 2011’*



**Management Institute of Population and Development**  
a unit of Parivar Seva Sanstha

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## About Author



Dr. Devendra Kothari, an eminent population programme management specialist, is the former Director of the Management Institute of Population and Development (MIPD). After obtaining formal degrees in population sciences from the Harvard University (1975) and Australian National University, Canberra (1980), he has been working in the area of population program management. He was associated with IIMR, Jaipur for more than 14 years (1987-2000). He also worked as the Director of Rajiv Gandhi Population Mission, Government of Rajasthan (2002-05) under the chief Minister of Rajasthan to achieve the population and development goals. Dr. Kothari headed the team, which drafted state-

specific Population Policies for Madhya Pradesh (2000) and Rajasthan (1998). He chaired the National Committee, constituted by the Ministry of Health and Family Planning, Government of India, to review the implementation of the family welfare programme under the Community Needs Assessment Approach. (2001).

Dr. Kothari was a member of the Expert Group, constituted under the National Commission on Population, Government of India to suggest measures to improve the performance of population programmes in poor performing States of India. Dr. Kothari was nominated as a member of the Steering Committee of the Population Policy and Research Advisory Group under the Deputy Chairman of the Planning Commission, Government of India. The main objective of the Committee was to focus on Population and Development issues in the SAARC countries. He played a major role in advocacy on population stabilization issues with state legislatures and bureaucrats. He has been a consultant to various national and international agencies.

**‘Implication of Emerging Demographic Scenario  
based on the provisional result of the Census of India 2011’**

**by**  
**Devendra Kothari**  
Professor, Population Programme Management

Paper commission by **MIPD** as part of a consultancy agreement, with assistance provided by **Dr. Nivedita Hansraj**, Assistant Professor, MIPD & **Bhagchand Jat**, Data Analyst

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## Foreword

This Brief provides the background information for the presentation “ Implications of emerging demographic scenario - based on the provisional results of the Census of India 2011” being made by Dr Devendra Kothari on April 5, 2011 at the Scope Convention Center, New Delhi.

Well ahead of the Census Results of 2011, Management Institute of Population and Development (MIPD) , a unit of Parivar Seva Sanstha, decided to research and prepare a Policy Brief on the emerging demographic scenario based on the analysis of previous results as well as study its implications with special reference to the Census Results of 2011. Dr Devendra Kothari, Professor, Population Programmed Management and Ex Director of MIPD was appointed as a consultant for this project.

I am happy that so soon after the announcement of Census Results . 2011, on March 31, 2011, the presentation and this Brief has been possible. I hope that this quick interpretation and analysis of the Census Results will provide the policy makers and the implementers with much needed review and direction for the future. A detailed Policy Brief would follow soon.

MIPD team members Dr Nivedita Hansraj, Assitant Professor and Shri Bhag Chand, Data Analyst provided support to Dr Kothari in preparation of this important paper. I am grateful to them for their hard work and unstinted support . I also wish to acknowledge the efforts of their team leader Dr Renu Suri, Dy Director and the other members of MIPD and the IEC team as well as Parivar Seva who made this presentation and Brief possible.

I remain grateful to Population Foundation of India and especially Ms. Poonam Muttreja for their financial support for our endeavour.

MIPD looks forward to meet the challenges posed in the area of population and development by contributing to enhancement of management capacity in the country.

Sudha Tewari  
President  
Parivar Seva Sanstha

April 4, 2011

# 'Implications of Emerging Demographic Scenario based on provisional results of Census of India 2011'

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April 5, 2011

## **Abstract**

*The provisional results of Census 2011 were released on March 31, 2011 by the Registrar General of India. An attempt has been made in this Brief here to use available set of data to assess the findings and their implications. At first glance, the results from the census 2011 seem encouraging. The rate of population growth has shown a declining trend but it is still about 1.62 per cent per annum. As a result, population of India during the decade 2001-11 increased by more than 181 million. The absolute addition is slightly lower than the population of Pakistan (185 million), the sixth most populous country in the world. Further, the findings of the census 2011 clearly reinforces that two contrasting demographic "nations" are emerging in India. While all four States of south India have already achieved the replacement level fertility of 2.1 children per woman required to initiate the process of population stabilization, the Four Large North Indian States (FLINS) of Bihar, Madhya Pradesh, Rajasthan and Uttar Pradesh have a long way to go before they achieve the required level. The paper argues that this emerging "demographic divide" may pose problems for socio-economic development as well as unity of the country.*

*The writing is on the wall. The question is not whether we act or not, but whether we act now or later and deal with the much more dire and expensive consequences. What we do in the next few years, especially during the period of Twelfth Five Year Plan (2012-17), will determine India's future. There is no need to implement coercive measures or to provide incentives and disincentives. The real need is to provide services in un-served and underserved areas looking to the needs of clients. At the same time, investment in education has to be stepped up to improve the quality of education especially at the level of government schools and colleges to help students from economically poor background and rural families.*

## **Introduction**

A census is the procedure of systematically acquiring and recording information about all the members of a given population. The first census of India in modern times was conducted in 1872. However, the first synchronous census of India was held in 1881. Since then, census has been undertaken uninterruptedly once every ten years. The census 2011 was conducted in two phases: first (house listing phase) commenced on May 1, 2010 and the second (population enumeration phase) conducted from February 9 to 28, 2011. The data generated by the Census of India 2011 will be used in preparing the National Population Register. As such, extra efforts were made to ensure the quality of data.

The provisional results of Census of India 2011 were released on March 31, 2011. So far, only total population and its male and female distribution, 0-6 population, sex ratio, density of population and literacy rates have been disseminated. An attempt has been made here to use available set of data to assess the findings and their implications.

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## **An Overview**

The provisional results of the Census of India 2011 are of interest to those involved in India's development, as well as those concerned with the global demographic situation. The reason, of course, is the massive size of the country's population. The Indian population as at 00.00 hours of March 1, 2011 was 1,210,193,422, of which 623,724,248 are males and 586,469,174 are females. This number is higher than had been generally anticipated in India. For example, the official projections made by the Technical Group on Population Projections and chaired by the Registrar General, India arrived at a figure of only 1,192,506,000 for this date (RGI 2006), or nearly 18 million fewer than the provisional total.

The most populous State in the country continues to be Uttar Pradesh with a population of 199,581,477 and the least populous State is Sikkim with a population of 607,688. The Union Territory of Lakshadweep, with a population of just 64,429, is the tiniest part of the country. The details are given - (see Table A-1 in annexure) for all thirty five states.

With more than 1.2 billion people, India now contains about 17.5 per cent (i.e., every sixth person in the world is an Indian) of humanity. China is the only country with a larger population - in the order of 144 million more. The United Nations (2010) has estimated that the Indian population grew at an annual rate of 1.43 percent during 2005-10. in comparison, China registered a much lower annual growth rate of population (0.7 percent) during the corresponding period. In fact, the population growth rate of China is now almost at par with that of the developed countries. By demographers expect India's population to surpass the population of China, currently the most populous country in the world, by 2030. At that time, India is expected to have a population of more than 1.48 billion while China's population is projected to be at its peak of 1.46 billion and will begin to drop in subsequent years. Based on analysis of recent data, the author has come to the conclusion that India will take over China in the next 15 years, that is by 2025.

### **Box 1: India and China**

As per the Population Reference Bureau's (2010) estimates, India had 1189 million people whereas China's population was 1338 million in 2010. Nearly 27 million children are born every year in India and only 16 million in China. In the last twenty years, India's population has increased by more than 350 million, whereas china's population increased only by 210 million during the corresponding period. This has impact on the quality of life of people. For example, life expectancy at birth in China is now 74 years vs. 64 years in India. The corresponding figures for infant deaths/1000 births are 21 and 53, respectively.

Because of China's successful management of population issue, it has been able to improve the rate of economic growth. GNI PPP per capita in China was 6020 US dollar whereas it was only 2960 US dollar in 2008.

One fails to understand why some experts and policy makers have stated that India's population is its strength.

(Table 1 presents the population of India as recorded in each decadal census since 1901 along with some other indicators.)

India has been in the middle of the demographic transition over the past several decades where the death rate has fallen sharply because of preventable causes like improved public

Table 1 India: Trends in population growth and other indicators, 1901-2011

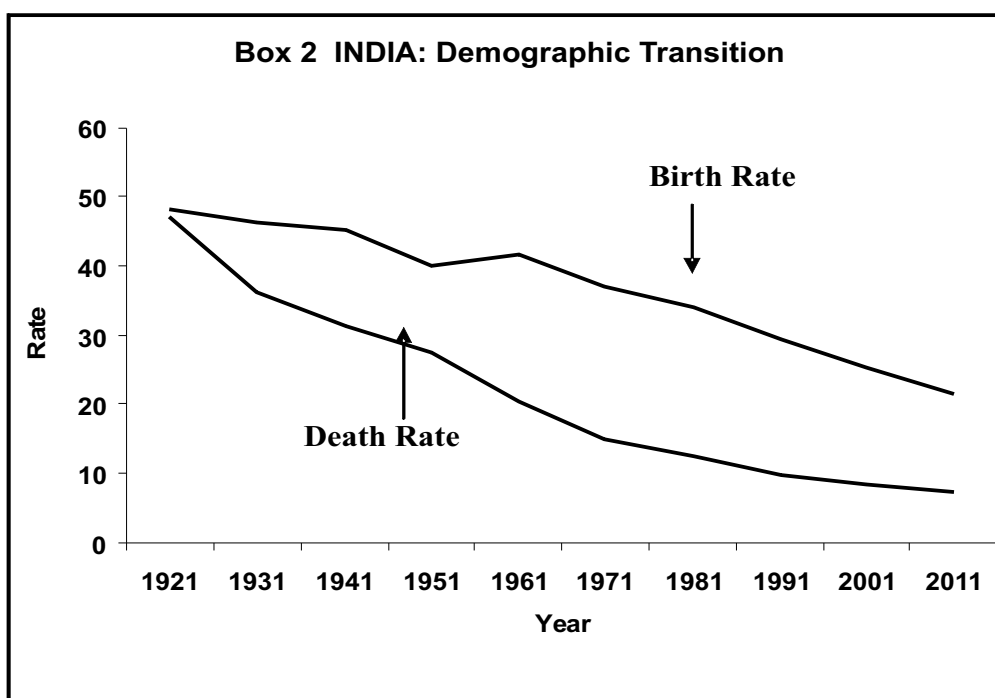
Year	Population (in million)	Decadal growth		Average annual growth rate(percent)	Persons /sq.km	Sex ratio f/1000 m
		Absolute Number (in million)	Percent increase			
1	2	3	4	5	6	7
1901	238.4	-	-	-	77	972
1911	252.1	13.7	5.75	0.56	82	964
1921	251.3	-0.8	-0.31	-0.03	81	955
1931	279.0	27.7	11.00	1.04	90	950
1941	318.7	39.7	14.22	1.33	103	945
1951	361.1	42.4	13.31	1.25	117	946
1961	439.2	78.1	21.64	1.96	142	941
1971	548.2	109.0	24.80	2.20	177	930
1981	683.3	135.1	24.66	2.22	216	934
1991	846.4	163.1	23.87	2.14	267	927
2001	1028.7	182.3	21.54	1.95	325	933
2011	1210.2	181.5	17.64	1.62	382	940

Source: Based on data obtained from *Census of India 2011 - Provisional Population Totals*, Paper 1, March 2011, Registrar General & Census Commissioner, India.

health as well as sanitation; but the birth rate has remained high due to slow progress towards socio-economic development as well as limited access to quality reproductive health and contraceptive services, especially in the Four Large North Indian (FLNI) States of Bihar, Madhya Pradesh, Rajasthan and Uttar Pradesh. That is the major cause of a spurt in population as well as the stalled demographic transition.<sup>2</sup>

<sup>2</sup> For details on causes of stalled demographic transition, see: Bongaarts (2006). Also see Kothari (2007).





Source: Based on data obtained from Registrar General, India.

However, the results of the last two censuses<sup>3</sup>, especially the findings of the 2011 census clearly indicate that the country has entered the last phase of demographic transition, usually characterized by rapidly declining fertility. The crucial question is - how long will this phase extend and when will India achieve a stable population?<sup>4</sup> The National Population Policy 2000 states that “the long-term objective is to achieve a stable population by 2045, at a level consistent with the requirements of sustainable economic growth, social development, and environment protection” (Gol 2000:2). To initiate the process of population stabilization, replacement level fertility of 2.1 children per woman would be achieved by 2010. However, the Report of the Technical Group on Population Projections reveals that India will not achieve the replacement level fertility before 2021 (RGI 2006: 6). No doubt, it will require a “herculean effort” on the part of the government and the people to achieve the much-cherished goal of a stable population.<sup>5</sup>

<sup>3</sup>For a critical analysis of the results of Census of India 2001, see Dyson (2001)

<sup>4</sup>A stable population is that where fertility and mortality are constant. This type of population will show an unvarying age distribution and will grow at a constant rate.

<sup>5</sup>During the recent review meeting held at Hyderabad and organized by the Ministry of Health and Family Welfare, Government of India in January 2011, it was stated that “instead of reaching population stabilization in 2045 at 1450 million people, India will reach the target around 2060 at 1650 million”. For details, see: Times of India (Delhi Edition), dated January 10, 2011, p 1.

## **Intercensal Population Growth**

The percentage decadal growth during 2001-2011 has registered the sharpest decline since independence. It has declined from 21.54 percent for 1991-2001 to 17.64 percent for the period 2001-2011, a decrease of 3.90 percentage points. Though the decadal growth rate has declined significantly during the decade, in absolute terms the population of India has increased by a whopping 181.5 million during the period. The absolute addition to the population during the decade is slightly less than the estimated population of Pakistan (185 million in 2010), the sixth most populous country in the world.

The population of an area grows or decreases as a result of both natural increase (births minus deaths) and net migration (in-migration minus out-migration). During the decade 2001-11, India's population increased by more than 181 million, as noted earlier. During the corresponding period, however, natural increase of population was 178 million, as derived from the SRS natural increase growth rate.<sup>6</sup> An analysis of these data reveals that India as a whole tends to be a net importer of people from overseas, and this probably explains in part why India's intercensal growth rate is slightly higher than its rate of natural increase (1.62 vs. 1.60). It appears that during the decade, net in-migration (in migration minus out migration) from India was of more than 3.5 million people.

The State level data shed light on India's changing demographic situation. It can be seen that Uttar Pradesh is by far the most populous State in the country with about 200 million people living here, which is more than the population of Brazil (195 million in 2010), the fifth most populous country of the world. The Seventeen States, designated as 'Major States,' now each has a population of over 25 million<sup>7</sup> totaling to 1.14 billion, comprising 91 per cent of India's 1.21 billion population. On the other extreme, there are eight States and Union Territories in the country that are yet to reach the one million mark.

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<sup>6</sup>The rate of natural increase was estimated by using Sample Registration System (SRS) data. The SRS is a continuous dual record demographic sample survey that has been operating for about 40 years and yields relatively reliable demographic estimates. Moreover, it is the only data collection system in India that regularly produces estimates of both birth and death rates. It was initiated by the office of Registrar General, India in a pilot basis in a few selected States in 1964-65, and it became operational during 1969-70 covering about 3700 sample units. Subsequently, the sample size was further increased. At present SRS covers 7,597 sample units (4433 rural and 3,164 urban) spread across all States and Union Territories and covers about 1.5 million households and 7.10 million population in all States/UTs. (For detail see: SRS Bulletin, January 2011, Registrar General, India).

For the first time since Independence in 1947 there is clear evidence that the country's intercensal rate of population growth is on a declining mode. Over the past 20 years there has been a steady decline in the annual growth rate of population from 2.14 per cent in 1991 to 1.95 in 2001 and further to 1.62 per cent in 2011. The rate of population growth has declined in all the major States except Tamil Nadu and Chhattisgarh, and this is a good sign. However, the Four Large North Indian (FLNI) States of Bihar, Madhya Pradesh, Rajasthan, and Uttar Pradesh have experienced relatively high rates of population growth during 2001-2011 as compared to Four South Indian (FSI) States of Andhra Pradesh, Karnataka, Tamil Nadu and in particular Kerala. And this emerging demographic divide may pose problems for socio-economic development as well as unity of the country.

While Uttar Pradesh, Maharashtra, Bihar, West Bengal and Andhra Pradesh have held on to the first five positions in terms of their ranking in 2011 as they did in 2001, Tamil Nadu, however, has moved down to take the seventh position in 2011 from its sixth position in 2001. On the other hand, Madhya Pradesh has moved on to take the sixth position in 2011 from its seventh rank in 2001.

The provisional data indicate that slightly more than one third of India's population in 2011 was enumerated in Uttar Pradesh, Maharashtra and Bihar alone. Next seven States namely West Bengal, Andhra Pradesh, Tamil Nadu, Madhya Pradesh, Rajasthan, Karnataka and Gujarat accounted for more than 43 percent of the total population. In other words, more than three fourths of the country's population was enumerated in just 10 States and the remaining 25 States and Union Territories recorded less than one fourth of the population of the country. This sort of a skewed population distribution suggests that an overwhelming proportion of population is located in only a few States of India. This is a valid reason to argue in favour of a second States Reorganization Commission.

### **Population Density**

One of the important indices of population concentration is the density of population. The population density of India in 2011 is 382 persons per square kilometer, which means that now 57 more people live in a square kilometer area in the country than the number that lived a decade ago. Soon after Independence in 1951, the density of India was as low as 117 and this steadily increased from one decade to another to reach 382 in 2011.

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<sup>7</sup> These states are: Andhra Pradesh, Assam, Bihar, Chhattisgarh, Gujarat, Haryana, Jharkhand, Karnataka, Kerala, Madhya Pradesh, Maharashtra, Orissa, Punjab, Rajasthan, Tamil Nadu, Uttar Pradesh and West Bengal.

The persons living per sq. km. has increased by 115 per cent in the last sixty years. This is a matter of great concern as it puts immense pressure on India's natural resources in general, and water in particular. It also adversely affects the quality of life of people.

The provisional data indicate that the population density within the country varies widely from 17 persons per sq. km. in Arunachal Pradesh to 11,297 in NCT Delhi (see Table A-2 in Annexure). Among Major States, Bihar (1,102) is now the most thickly populated State pushing West Bengal (1,029) to the second spot in terms of its ranking in 2011. Similarly, Haryana moved up from the 7<sup>th</sup> position to the 5<sup>th</sup> position in 2011 (mainly due to its proximity to Delhi) while Tamil Nadu moved down from the 6<sup>th</sup> to the 7<sup>th</sup> position.

### **Overall Sex Ratio**

Sex Ratio is a sensitive indicator that displays the status of women. It is mainly the outcome of the interplay of sex differentials in mortality, sex selective migration, sex ratio at birth and at times the sex differential in population enumeration. The sex ratio in the country had always remained unfavourable to females. Moreover, barring some hiccups, it has shown a long term declining trend to reach 927 females per 1000 males in 1991 from 972 in 1901 (Table 1).

The Report on Population Projections for India and States predicts that the sex ratio of the total population is expected to decrease (i.e. become less feminine) from 933 females /1000 population in 2001 to 930 during 2026 (RGI 2006). Contrary to the projected trends, the sex ratio has become less masculine in 2011. According to the provisional figures, the sex ratio stands at 940 for the country as a whole. Though marginal, this is a welcome improvement over the 2001 census. Further, it is for the first time that two consecutive censuses have shown an increase in general sex ratio.

The sex ratio among the Major States ranged from 877 in Haryana to 1,084 in Kerala in 2011(see Table A-2 in Annexure). It appears that the population sex ratios have become less masculine in most States during the last two censuses. This probably reflects an improvement in the relative census coverage of the female population as well as some genuine changes in the position of females, as reveled by the declining maternal mortality rates and increasing expectation of life at birth. The drastic improvement in overall sex ratio in coming years largely depends on efforts to be made in the FLNI States due to their share in the total population of the country.

### **Child Sex Ratio**

Before the provisional census results were declared on March 31, 2011, it was assumed that the Child Sex Ratio (CSR) - that is the number of girls per thousand boys in the 0-6 age group - would register some improvement over 2001 findings<sup>8</sup>. However, the results reported a steep fall in child sex ratio again, and this is the most depressing finding of the census 2011.

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<sup>8</sup>This assumption was due, in no small part, to efforts by the central and state governments to discourage sex determination during pregnancy by the passage of the Pre-Conception and Pre-Natal Diagnostic Techniques(Prohibition of Sex Selection) Act 1994 and subsequent sex selective abortions and effort of several NGO's who campaigned this socially abohorant practice.

At the national level CSR declined from 923 to 914 between the last two censuses. The decline of 13 points between 2001 and 2011 as compared to 18 points between 1991 and 2001 may offer some consolation to all those concerned with the issue. But the fact remains that gender discrimination is continuing to be rampant<sup>9</sup>. According to the provisional results, except for Punjab, Haryana, Gujarat, Tamil Nadu and some other small states that have recorded an increasing trend in CSR, all other States including Kerala and Union territories (27 out of 35), the child sex ratio shows a decline over 2001 census (see Table A-2 in Annexure). This shows that the phenomena of discrimination is no longer limited to a few states but is almost assuming epidemic proportion. This poses new set of challenges to the programme managers and civil society organizations. Further, the findings of census 2011 clearly indicate that discrimination against girl child was wide spread both in poor and progressive areas. For example, the State of Maharashtra recorded a fall of 30 points from 913 to 883 between 2001 and 2011 in CSR, whereas CSR declined from 909 in 2001 to 883 in 2011, a decline of 26 points in Rajasthan in the last decade alone.

The data shows that the overall percentage of children in the 0-6 age group has reduced by 2.8 per cent. They constituted 15.9 per cent of the population in 2001 as compared to 13.1 percent in 2011. This indicates lowering fertility rates - a negative growth rate in this segment of the population. However, it is important to note that if we look at the growth rate among boys and girls which is -2.42 and -3.80, it is clear that girls are not really given a chance of survival due to discrimination both at birth and during childhood.

Census year	Girls/1000 boys
1991	945
2001	927
2011	914

The CSR is an important indicator not only because it reflects the pre-birth elimination of girls but also the discrimination against girls once they are born. It is true that more girls die during childhood than boys. Some under enumeration also has to be factored in as many families do not report the presence of girls in the family. However, concerted efforts are still needed to create equal regard and affection for the girl child. Otherwise the population will become skewed leading to a host of societal problems like increased crime against women.

### **State of literacy:**

Literacy and education are reasonably good indicators of socio-economic development in a society.

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<sup>9</sup>See various reports prepared by the Population First, Mumbai.

The ability to read and write with understanding is not ordinarily achieved until one has had some basic schooling or at least some time to develop these skills. It was, therefore, decided at the 1991 census that all children in the age group 0-6, will be treated as illiterate by definition and the population aged seven years and above only is to be classified as literate or illiterate. The same criterion has been retained for Census of India, 2011 also. It is not mandatory that to be treated as literate, a person should have received any formal education or acquired any minimum educational standard. Literacy status can be acquired through adult literacy classes or by attending any non-formal educational system. Persons who are unfortunately blind and read in Braille are also treated as literates (RGI 2001).

More than a decline in population growth rate, it is in the spurt in literacy rates that make the Census of India 2011 stand out from others in post-independence India. More than four-fifth of the male population and two-third of the female population are now literate, compared to less than one-fifth of Indians who still do not possess even the basic proficiency in literacy (see Table A-3 in Annexure). The increase in literacy rates in males and females are in the order of 7 and 11 percentage points respectively as compared to 2001. It is important to note that literacy improved faster in the poorest states during the last decade as shown by the provisional data. This improvement in literacy rate augurs well for the country and need not only to be sustained but requires a fillip, particularly in the case of the fairer sex.

In spite of a significant jump in female literacy, its impact has not been seen in the meaningful improvement in women's autonomy measured in terms of decision-making roles within the family and community. Women's autonomy can have a significant impact on their health seeking behaviour of women by altering their relative control over fertility and contraceptive use, and by influencing their attitudes and abilities. To measure women's autonomy and empowerment more directly, the National Family Health Survey-3 (IIPS 2007), asked about women's participation in household decision-making, their freedom of movement, and access to money that they could spend as they wished. Married women surveyed were asked questions who makes decision-making on their own health care, making large household purchases, making household purchases for daily household needs, and visiting their own family or relatives. Only 37 percent of currently married women participate in making all four of these decisions. Further, only one-third of women are allowed to go by themselves to the market, to a health facility, and to places outside their own community. Further, a comparison with other States of India indicates that FLNI States have a consistently poor record on all the indicators of decision-making, as noted in NFHS-3 (IIPS 2007). In this connection, one should note that these states recorded the highest unwanted fertility in the country, as will be discussed shortly. High level of unwanted pregnancy leads to powerlessness and this, in turn, engenders lack of empowerment and autonomy (Kothari 2010).

## **Resultant Demographic Scenario and Its Implications**

At first glance, provisional results from the Census of India 2011 seem encouraging. However, the resultant demographic scenario has long term implications for India's socio-economic development.

The provisional results suggest strongly that the rate of population growth is now falling. Even so, the absolute addition to the country's population during the decade has been huge. In just ten years (2001-11) there appears to have been an increment of more than 181 million people. Thus, the fall in India's rate of population growth should not obscure the magnitude of the decadal addition mainly due to "population momentum". India's population will grow by 16-17 million annually in coming decades since more than 50 per cent of its population is in the reproductive age (15-49). As a result, millions more will join this cohort each year, since the number of persons less than 15 years of age will increase continuously in coming decades. As a result, it may take several decades more to stabilize the population.

Around 50 percent of India's 1.2 billion people are below 25 years of age, which places the Indian economy in a demographic sweet spot (also referred to as "demographic dividend"). However, having a large workforce is only an advantage when it can contribute in a meaningful way to the economy. This is something yet to be realized in the country. India's disadvantage is its growing pool of unskilled, uneducated workforce which could undermine its global competitive strengths and expose the economy to the risk of stagnation. The recent statistics from the Ministry of Human Resource Development, Government of India shows a significant decline in primary school enrolments, especially in the FLNI States. While commenting on this, a well known novelist, Chetan Bhagat rightly commented that "Given Indian demographics, where the numbers of children is increasing every year, the results are even more shocking". He warns<sup>10</sup>: "If today millions aren't being educated well, how will they get proper jobs tomorrow? Won't the education crisis translate into a far scarier job crisis in a few years?" Unless we improve the quality of human resources, "we are inching closer to demographic disaster".<sup>11</sup>

The present scenario of availability of food items is very depressing, as per capita availability of food grains and pulses has been decreasing in India.

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<sup>10</sup>For details, see: Chetan Bhagat's article "We Don't Need No Education?" appeared in Times of India (Jaipur Edition), p. 10, dated 26.3.2011.

<sup>11</sup>Shri Deepender Singh Hooda, one of young Members of Parliament, argued this point during the discussion on 'Consideration of Issues of Population Stabilization in the Country' held in Lok Sabha on August 4, 2010. He argued that the term "Demographic Dividend" has become an easy tool to hide our inaction on population front. He further said that "The problem of population is the problem of youth and this is the mother of all problems". For details, see Lok Sabha Proceedings, p. 4156.

Latest data from the Agriculture Ministry show that the per capita availability of food grains has declined in the last ten years from around 500 grams per day in 1997 to less than 440 grams per day in 2007. Similarly, availability of pulses has been worst affected which has reduced from 16 Kg. per person per year to 12 Kg. in the corresponding period. To maintain the present level of food grains availability, India has to produce around 300 million tones of food grain by the year 2021. In other words, India must prepare itself for the "Second Green Revolution" to increase of agricultural output<sup>12</sup>.

Box 4 India: Demographic Divide, 2006			
Indicator	FLNI States *	Rest of India	All India
Total Population(%)	36	64	100
Crude Birth Rate	30	20	23
Infant Mortality Rate	68	47	57
Meternal Mortality Ratio	386	201	254
*Four Large North Indian States (FLNI) States are: Bihar, Madhya Pradesh, Rajasthan and Uttar Pradesh. Source: Kothari and Tewari, 2009. Slowing Population Growth in India: Challenges, Oppoutunities and the Way Forward. MIPD Policy Brief No. 2			

The findings of the Census of India 2011 clearly reinforce that two contrasting demographic "nations" are emerging in the country. In 1951, the Four South Indian States (Andhra Pradesh, Karnataka, Kerala and Tamil Nadu) had 26 per cent of India's population and by 2011, this figure had declined to 21 per cent. In 2051, as per the Population Foundation of India (PFI & PRB 2007), the combined population of these States is projected to be only 16 per cent of the country's total. On the other hand, the population of Four Large North Indian States will increase from 37 per cent in 2011 to 44 per cent in 2051 (Table 2). The Sample Registration data indicate that the over all decline in fertility rate in India during last 25 years has been substantial. There are, however, wide disparities that can be observed in the rate of decline in various parts of the country. While all the States in South India have already achieved the replacement level fertility of 2.1 children per woman required to initiate the process of population stabilization, the FLNI States have a long way to go before they achieve this level.

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<sup>12</sup>The latest Economic Survey has raised an alarm over the dismal performance of the farm sector saying the Indian agriculture has not seen any big technological breakthrough since the 1960s. "The agriculture sector is at crossroads with rising demand for food items and relatively slower supply response in many commodities resulting in frequent spikes in food inflation," the Survey noted.



Table2 India: Emerging North- South demographic dived , 1951-2051

State	Percent of India's Population			Total Fertility Rate (Number of Children/ Woman)		
	1951	2011	2051*	1981	1991	2005
1	2	3	4	5	6	7
<b>Four Large North India States (FLNIS)</b>						
Bihar	8.1	8.6	10.5	5.7	4.4	4.3
Madhya Pradesh	5.2	6.0	6.4	5.2	4.6	3.6
Rajasthan	4.4	5.7	6.8	5.2	4.6	3.7
Uttar Pradesh	16.1	16.5	19.9	5.8	5.1	4.2
India	-	-	-	4.5	3.6	2.9
<b>Four South Indian States (FSIS)</b>						
Andhra Pradesh	8.6	7.0	6.0	4.0	3.0	2.0
Karnataka	5.4	5.1	4.3	3.6	3.1	1.8
Kerala	3.8	2.8	2.1	2.8	1.8	1.7
Tamil Nadu	8.3	6.0	4.0	3.4	2.2	1.8
Source: Sample registration system, RG, India and * Population reference Bureau (PFI & PRB 2007)						

This sort of fertility pattern will have a far reaching impact on future population growth of these States. Table 3 shows changing rank of ten most populous States in 1951 arranged by population size. It is interesting to note that Tamil Nadu and Rajasthan will swap their respective positions in the year 2051 as compared to 1951. Tamil Nadu will move down from its fourth position in terms of population size in 1951 to 10th in the year 2051. On the other hand, Rajasthan will move on to take the fifth position from its tenth rank. And this will change the political demography of India. It is in this context that fear policies playing havoc with human numbers in the country is not largely unfounded<sup>13</sup>. The slogans like “sons of soil” may be raised in a large scale. Demography, therefore, in the next 20 years or so will pose serious challenges to democracy and national unity by its sheer size.

Can all the impending challenges be solved? Probably not. What is possible, however, is to make these more manageable. One area where urgent attention is required is to decelerate growth of population significantly, especially in the Four Large North Indian States (Kothari and Tewari 2009).

<sup>13</sup>During the discussion on Consideration of Issues of Population Stabilization in the Country held in Lok Sabha on August 4, 2010, Shri C. SIVASAMI, Member of Parliament from Tiruppur, Tamil Nadu said: “In India, we find in the Southern States .....we have succeeded there in bringing down the population increase. But in certain Northern States we are quite unable to control population explosion and we are really struggling hard. This has resulted in a situation where the Northern States get more funds according to their population and the so-called States in the South are getting reduced funds from the Centre. I urge upon the Union Government to evolve a method to provide incentives to the Southern States which have succeeded in effectively controlling the population growth, but to the contrary they are being deprived of their share”. For details, see Lok Sabha Proceedings, 2010, p. 4134.

<sup>14</sup>The standard definition of unmet need depends upon the apparent inconsistency between a woman's contraceptive behavior and her stated reproductive preferences. The concept of unmet need was highlighted first time in India in a study conducted by the author in Rajasthan in 1988 on behalf of Ministry of Health and Family Welfare, Government of India. Based on the field data, the study revealed that there was sizable number of eligible couples that were not using contraceptive methods but did not want another child. According to the study, 15 per cent of currently married couple in Rajasthan had unmet need for family planning services in 1988-89. For details, see Devendra Kothari, Family Planning Programme in Rajasthan: Beyond the Existing Approach, Indian Institute of Health Management Research, Jaipur, 1989.

Table 3 India : Changing rank of ten most populous States in 1951 arranged by population size, 1951-2051

State	1951	1981	2011	2051*
Uttar Pradesh	I	I	I	I
Maharashtra	II	II	II	III
Andhra Pradesh	III	IV	V	VII
Tamil Nadu	IV	VI	VII	X
Bihar	V	V	III	II
West Bengal	VI	III	IV	IV
Karnataka	VII	VIII	IX	IX
Madhya Pradesh	VIII	VII	VI	VI
Gujarat	IX	X	X	VIII
Rajasthan	X	IX	VIII	V

Based on data obtained from Census of India 2011 - Provisional Population Totals, Paper 1, March 2011, Registrar General & Census Commissioner, India, and \* Population Reference Bureau (PFI & PRB 2007)

The major reason behind the emerging demographic scenario in India may be related to the low utilization of the Reproductive and Child Health (RCH) and Family Planning (FP) services, especially in FLNI States.

As per the latest NFHS-3 (IIPS 2007), the use of ante-natal and post-natal as well as family planning services is very low in these States as compared to the FLNI States. For example, less than 23 percent of infants were fully immunized and only 27 percent of pregnant women received the required antenatal care in Uttar Pradesh in 2005-06. The corresponding figures for Andhra Pradesh were 56 and 84 percent, respectively.

Further, only 17 percent of eligible couples are currently protected by terminal methods (that is sterilization), whereas the corresponding figure for Andhra Pradesh is more than 65 percent.

The distribution of births by birth order is yet another way to evaluate the status of family welfare programmes. Nearly 40 per cent of all births in Uttar Pradesh are births of four or higher order birth, whereas the corresponding figure is less than 8 per cent in Andhra Pradesh. Further, unmet need<sup>14</sup> for family planning is an important indicator for assessing the potential demand for family planning services.

The NFHS-3 data indicate that unmet need for family planning services varies from 5 per cent in Andhra Pradesh to 21 percent in Uttar Pradesh. Interestingly, there was not a significant difference in the overall female literacy level in these two States (59 per cent versus 60 percent in 2011). Obviously, the poor management of RCH and FP services has had an impact on the resulting demographic situation in India.

As such, action is urgently needed to expand the use of services in FLNI States to reduce fertility as well as infant and maternal mortality. The use of services cannot be improved significantly unless these are easily available with quality. The way the Family Welfare Programme is being currently managed in most of the FLNI States is inadequate to meet the unmet need and the increasing demand for services. We have to accept that the system, which has failed to deliver required results in the last ten years or so, will not be able to face new challenges, as envisaged in the National Rural Health Mission. Therefore, India must address the overall management of its reproductive and child health care system, especially in the FLNI States (Kothari and Tewari 2009).

### **Discussion and Conclusion**

In conclusion, one needs to assess on the major factors contributing towards population growth? The natural population increase is the difference between the number of births and deaths. Although both these rates are declining, but the birth rate still remains high due to two factors. The first factor is large volume of births due to unwanted and/or unplanned pregnancies; these are children born due to lack of availability or poor access to contraceptive services. And the second factor is the desire for larger families due to myths and misconceptions as well as preference for a male child and high infant mortality.

While India's population continues to grow by 16-17 million people annually, 15 million women, mostly belonging to the "bottom of the pyramid" especially in the FLNI States, seek to postpone childbearing, space births, or stop having children, but are not using a modern methods of contraception. This is also known as the "unmet need" for contraception. Often, these women travel far from their communities to reach a health facility, only to return home "empty handed" due to shortages, stock outs, and/or non availability of doctors and paramedical staff. When women are thus turned away, they are unable to protect themselves from unwanted/unplanned pregnancies and sexually transmitted infections, including HIV/AIDS. And this type of incomplete control over the reproductive process leads to relatively high levels of unwanted childbearing (Kothari 2010). Around 26 million children are born in India every year and out of this, about 5.5 million births have been classified as unplanned.

Further, as per the National Family Health Survey-3 (IIPS 2007) about 30 per cent (around 224 million persons) of the total population in the young age group 0-35 years in India was the product of unwanted childbearing. The level of unwanted fertility in the country has increased from 23 per cent in 1992-93 to 30 percent in 2005-06.as shown in Table 4.

Table 4 India: Level of unplanned/unwanted fertility, 1992-2006

Item	1992-92	1998-99	2005-06
Unplanned pregnancies			
Per cent of unplanned births	23.1	21.6	21
• Unplanned Births (in million)	5.8	5.8	5.5
Unwanted fertility			
Per cent of unwanted fertility	22.1	25.5	29.6
Person in age 0-35 resulting from unwanted fertility (in million)	140	178	218
Source: Based on data obtained from National Family Health Survey 1, 2 & 3 and Sample Registration Bulletins. For details, see: Kothari, Devendra. 2010. "Empowering Women in India through better Reproductive Healthcare", FPA Working Paper No 5, Jaipur: Forum for Population Action.			

A popularly held belief is that as a country becomes economically more prosperous, its fertility declines significantly and leads to a stable population. However, this is a simplistic view of a complex phenomenon. Since the introduction of market-based economic reforms in 1991, India has become one of the fastest growing major economies in the world. The economic reforms will be 20 years old this July (2011). However, during this period, India's population increased by 364 million, much more than the population of USA - the third most populous country in the world.

This raises the question: Is Development the Best Contraceptive<sup>15</sup> – or Are Contraceptives? Even 35 years after the World Population Congress in Bucharest in 1974, development continues to be the best contraceptive, "but, as agued by Dr. Karan Singh<sup>16</sup>, "the matter of population stabilization is now so urgent that it can no longer be left to be dictated by comparatively slower pace of economic growth in developing countries." It is argued that there is a need to go beyond the prevailing notion that socio-economic development is an essential precondition for fertility transition, since it provides only a partial explanation for the monumental changes taking place in fertility behavior, especially in low-income economies (like Bangladesh, our immediate neighbour and Andhra Pradesh in our country). Evidence suggests the importance of management variables as well. Systematic application of modern management principles is thus necessary in the implementation of population stabilization programmes. In recent years, these have occupied a more prominent place in explanation of fertility decline (Kothari and Krishnaswamy 2003).

<sup>15</sup> In the first-ever World Population Conference in Bucharest in 1974, Dr Karan Singh coined the slogan of "Development is the best Contraceptive", which was widely appreciated.

For details, see an article by Dr. Karan Singh: Population Development and Environment, 1994

Although the resultant demographic scenario based on the provisional results of the Census of India 2011 does not inspire confidence, achieving population stabilization in near future is not impossible. By strengthening the programme being conducted in the FLNI States, the goal of replacement level fertility required to initiate the process of population stabilization could be achieved even before 2021. This does not require too much by way of resources, but reorientation of programme management. If we achieve this goal, the population of the India as per the 2051 Census will be around 1500 million. Otherwise, it will be more than 1751 million (PFI & PRB 2007).

In conclusion, the population of India is expected to increase from 1210 million in 2011 to 1370 million (Scenario B) in 2021, as per Population Reference Bureau (PFI & PRB 2007) that is in the next ten years – an increase of 13.2 per cent or by 160 million during the decade at the rate of 1.24 per cent annually. As a consequence, the population density will increase from 382 to 435 persons per sq. kilometre in 2021, creating more demand for additional resources like water, food, education, health, housing, etc. Of the net addition of 159 million people, around 46 million will be the result of unwanted/ unplanned childbearing. This sort of population and development pattern has already created and will create several internal conflicts in India. The country is at the critical juncture because problems for long set aside have come to the fore and galloping and uneven population growth makes them pressing. Addressing this issue of population is the antidote to the various concerns plaguing the nation (like corruption, governance, law and order, poverty, women empowerment, etc.). As such, the population issue should not be allowed to become a “stumbling block” to socio-economic progress as well as the unity of the country (Kothari 1999). It is argued that towards faster and more “inclusive growth”, the Indian economic road map especially during the 12<sup>th</sup> Five Year Plan must give due importance to the issue of population stabilization.

Box 5 Population and development

“Human population is an important constituent of the sustainable development agenda. However, a fast growing population is leading to a significant diversion of national investable resources to consumption which could otherwise be used for increasing investment and productivity and for improving the quality of public social services such as education, health, sanitation, provision of safe drinking water and for control of environmental degradation”

Dr. Manmohan Singh  
Prime Minister of India

‘Source : Focus’, A Bulletin of Population Foundation of India, New Delhi, Vol. XVIII, No. 1, 2003, pp.1-2.

There is no need to implement coercive measures or to provide incentives and disincentives. The real need is to provide services in un-served and underserved areas. For this some innovative measures are needed. A user friendly service delivery system can help address the causes that lie at the root of unwanted fertility. As such, our total attention should be directed to improve the use of RCH and FP services, especially in FLNI States,

by adopting a pragmatic but time bound action plan. At the same time, investment in education has to be increased to improve the quality of education, especially at the government schools and colleges, where most of the students are from poor and rural families<sup>17</sup>. It is because education is the pivot upon which the fate of the nation hangs in balance.

The writing is on the wall. *The question is not whether we act or not, but whether we act now or later and deal with much more dire and expensive consequences.* What we do in the next few years, especially during the period of Twelve Five Year Plan (2012-17), will determine our future. By helping those couples who want to avoid unwanted childbearing, the goal of population stabilization could even be achieved before the targeted year of 2045 (Gol 2000). But India has a long way to go. There is an urgent need for client-centred reproductive health programmes, with emphasis on family planning, managed aggressively to respond to the needs of different population segments. Meeting the needs of women should be given more importance. India cannot afford business as usual.

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<sup>17</sup> Although there are no comprehensive surveys to test learning levels of children, an NGO – Pratham - which has been regularly testing samples of students in rural areas revealed in its 2010 report that 53 per cent of class 5 students could read a simple text. That is down from 58 per cent in 2007. Only 36 per cent of children could do simple division compared to 42 % in 2007. The report states that desperate parents are shifting their children to private schools. Obviously, all is not well with education. According to the data compiled by the Center for Budget and Governance Accountability (CBGA), the spending on education is stagnant at about 11.6%, while as a share of GDP it has increased only marginally from 3.0% in 2004-05 to 3.4% in 2009-10. For details, see Times of India, (Jaipur Edition, p 9), February 23, 2011.

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## Annexure Tables

Table A-1 India: State level Census statistics, 2001-2011									
S.No	States	Population 2011			Deviation from 2011 projected population	Percent Decadal Growth		Average Annual Population Growth Rate	
		Person	Male	Female	Person	1991-2001	2001-2011	1991-2002	2001-2012
1	2	3	4	5	6	7	8	9	10
<b>Major States</b>									
1	Andhra Pradesh	84,665,533	42,509,881	42,155,652	-69,467	14.59	11.10	1.37	1.06
2	Assam	31,169,272	15,954,927	15,214,345	601,272	18.92	16.93	1.75	1.58
3	Bihar	103,804,637	54,185,347	49,619,290	6,084,637	28.62	25.07	2.55	2.26
4	Chhattisgarh	25,540,196	12,827,915	12,712,281	1,282,196	18.27	22.59	1.69	2.06
5	Gujarat	60,383,628	31,482,282	28,901,346	1,363,628	22.66	19.17	2.06	1.77
6	Haryana	25,353,081	13,505,130	11,847,951	-85,919	28.43	19.90	2.53	1.83
7	Jharkhand	32,966,238	16,931,688	16,034,550	1,494,238	23.36	22.34	2.12	2.04
8	Karnataka	61,130,704	31,057,742	30,072,962	1,711,704	17.51	15.67	1.63	1.47
9	Kerala	33,387,677	16,021,290	17,366,387	-1,175,323	9.43	4.86	0.9	0.48
10	Madhya Pradesh	72,597,565	37,612,920	34,984,645	397,565	24.26	20.30	2.20	1.87
11	Maharashtra	112,372,972	58,361,397	54,011,575	-287,028	22.73	15.99	2.07	1.49
12	Orissa	41,947,358	21,201,678	20,745,680	1,197,358	16.25	13.97	1.52	1.32
13	Punjab	27,704,236	14,634,819	13,069,417	26,236	20.10	13.73	1.85	1.30
14	Rajasthan	68,621,012	35,620,086	33,000,926	791,012	28.41	21.44	2.53	1.96
15	Tamil Nadu	72,138,958	36,158,871	35,980,087	4,694,958	11.72	15.60	1.11	1.46
16	Uttar Pradesh	199,581,477	104,596,415	94,985,062	-1,182,523	25.85	20.09	2.33	1.85
17	West Bengal	91,347,736	46,927,389	44,420,347	1,848,736	17.77	13.93	1.65	1.31
<b>Minor States</b>									
18	Arunachal Pradesh	1,382,611	720,232	662,379	141,611	27.00	25.92	2.42	2.33
19	Goa	1,457,723	740,711	717,012	-309,277	15.21	8.17	1.43	0.79
20	Himachal Pradesh	6,856,509	3,473,892	3,382,617	63,509	17.54	12.81	1.63	1.21
21	Jammu & Kashmir	12,548,926	6,665,561	5,883,365	830,926	29.43	23.71	2.61	2.15
22	Manipur	2,721,756	1,369,764	1,351,992	272,756	24.86	18.65	2.25	1.72
23	Meghalaya	2,964,007	1,492,668	1,471,339	343,007	30.65	27.82	2.71	2.49
24	Mizoram	1,091,014	552,339	538,675	87,014	28.82	22.78	2.57	2.07
25	Nagaland	1,980,602	1,025,707	954,895	-268,398	64.53	-0.47	5.11	-0.05
26	Sikkim	607,688	321,661	286,027	-4,312	33.06	12.36	2.90	1.17
27	Tripura	3,671,032	1,871,867	1,799,165	55,032	16.03	14.75	1.50	1.39
28	Uttaranchal	10,116,752	5,154,178	4,962,574	173,752	20.41	19.17	1.87	1.77
<b>Union Territories</b>									
29	Andaman & Nicobar Islands	379,944	202,330	177,614	-114,056	26.90	6.68	2.41	0.65
30	Chandigarh	1,054,686	580,282	474,404	-383,314	40.28	17.10	3.44	1.59
31	Dadra & Nagar Haveli	342,853	193,178	149,675	-11,147	59.22	55.50	4.76	4.51
32	Daman & Diu	242,911	150,100	92,811	-27,089	55.73	53.54	4.53	4.38
33	NCT Delhi	16,753,235	8,976,410	7,776,825	-1,697,765	47.02	20.96	3.93	1.92
34	Lakshadweep	64,429	33,106	31,323	-11,571	17.30	6.23	1.61	0.61
35	Pondicherry	1,244,464	610,485	633,979	-146,536	20.62	27.72	1.89	2.48
	INDIA	1,210,193,422	623,724,248	586,469,174	17,687,422	21.54	17.64	1.95	1.62

Source:

1. Census of India 2011, Provisional Population Totals, Paper 1, March 2011, Registrar General and Census Commissioner, India.

**Table A-2 India: Additional State level Census statistics, 2001-2011**

S.No.	States	Sex Ratio (f/1000m)		Sex Ratio 0-6 yrs (f/1000m)		Population Density persons/sq. km		Percentage share in total population	
		2001	2011	2001	2011	2001	2011	2001	2011
1	2	3	4	5	6	7	8	9	10
<b>Major States</b>									
1	Andhra Pradesh	978	992	961	943	277	308	7.41	7.00
2	Assam	935	954	965	957	340	397	2.59	2.58
3	Bihar	919	916	942	933	881	1,102	8.07	8.58
4	Chhattisgarh	989	991	975	964	154	189	2.03	2.11
5	Gujarat	920	918	883	886	258	308	4.93	4.99
6	Haryana	861	877	819	830	478	573	2.06	2.09
7	Jharkhand	941	947	965	943	338	414	2.62	2.72
8	Karnataka	965	968	946	943	276	319	5.14	5.05
9	Kerala	1,058	1,084	960	959	819	859	3.10	2.76
10	Madhya Pradesh	919	930	932	912	196	236	5.87	6.00
11	Maharashtra	922	925	913	883	315	365	9.42	9.29
12	Orissa	972	978	953	934	236	269	3.58	3.47
13	Punjab	876	893	798	846	484	550	2.37	2.29
14	Rajasthan	921	926	909	883	165	201	5.49	5.67
15	Tamil Nadu	987	995	942	946	480	555	6.07	5.96
16	Uttar Pradesh	898	908	916	899	690	828	16.16	16.49
17	West Bengal	934	947	960	950	903	1,029	7.79	7.55
<b>Minor States</b>									
18	Arunachal Pradesh	893	920	964	960	13	17	0.11	0.11
19	Goa	961	968	938	920	364	394	0.13	0.12
20	Himachal Pradesh	968	974	896	906	109	123	0.59	0.57
21	Jammu & Kashmir	892	883	941	859	100	124	0.99	1.04
22	Manipur	974	987	957	934	103	122	0.22	0.22
23	Meghalaya	972	986	973	970	103	132	0.23	0.24
24	Mizoram	935	975	964	971	42	52	0.09	0.09
25	Nagaland	900	931	964	944	120	119	0.19	0.16
26	Sikkim	875	889	963	944	76	86	0.05	0.05
27	Tripura	948	961	966	953	305	350	0.31	0.30
28	Uttaranchal	962	963	908	886	159	189	0.83	0.84
<b>Union Territories</b>									
29	Andaman & Nicobar Islands	846	878	957	966	43	46	0.03	0.03
30	Chandigarh	777	818	845	867	7,900	9,252	0.09	0.09
31	Dadra & Nagar Haveli	812	775	979	924	449	698	0.02	0.03
32	Daman & Diu	710	618	926	909	1,413	2,169	0.02	0.02
33	NCT Delhi	821	866	868	866	9,340	11,297	1.35	1.38
34	Lakshadweep	948	946	959	908	1,895	2,013	0.01	0.01
35	Pondicherry	1,001	1,038	967	965	2,034	2,598	0.09	0.10
	<b>INDIA</b>	<b>933</b>	<b>940</b>	<b>927</b>	<b>914</b>	<b>325</b>	<b>382</b>	<b>100.00</b>	<b>100.00</b>

Source:

1. Census of India 2011, Provisional Population Totals, Paper 1, March 2011, Registrar General and Census Commissioner, India.

**Table A-3 India: State level Census statistics on literacy, 2001-2011**

S.No.	States	Literacy Rate					
		2001			2011		
		Person	Male	Female	Person	Male	Female
1	2	3	4	5	6	7	8
<b>Major States</b>							
1	Andhra Pradesh	60.5	70.3	50.4	67.7	75.6	59.7
2	Assam	63.3	71.3	54.6	73.2	78.8	67.3
3	Bihar	47.0	59.7	33.1	63.8	73.4	53.3
4	Chhattisgarh	64.7	77.4	51.9	71.0	81.5	60.6
5	Gujarat	69.1	79.7	57.8	79.3	87.2	70.7
6	Haryana	67.9	78.5	55.7	76.6	85.4	66.8
7	Jharkhand	53.6	67.3	38.9	67.6	78.5	56.2
8	Karnataka	66.6	76.1	56.9	75.6	82.9	68.1
9	Kerala	90.9	94.2	87.7	93.9	96.0	92.0
10	Madhya Pradesh	63.7	76.1	50.3	70.6	80.5	60.0
11	Maharashtra	76.9	86.0	67.0	82.9	89.8	75.5
12	Orissa	63.1	75.3	50.5	73.5	82.4	64.4
13	Punjab	69.7	75.2	63.4	76.7	81.5	71.3
14	Rajasthan	60.4	75.7	43.9	67.1	80.5	52.7
15	Tamil Nadu	73.5	82.4	64.4	80.3	86.8	73.9
16	Uttar Pradesh	56.3	68.8	42.2	69.7	79.2	59.3
17	West Bengal	68.6	77.0	59.6	77.1	82.7	71.2
<b>Minor States</b>							
18	Arunachal Pradesh	54.3	63.8	43.5	67.0	73.7	59.6
19	Goa	82.0	88.4	75.4	87.4	92.8	81.8
20	Himachal Pradesh	76.5	85.3	67.4	83.8	90.8	76.6
21	Jammu & Kashmir	55.5	66.6	43.0	68.7	78.3	58.0
22	Manipur	70.5	80.3	60.5	79.9	86.5	73.2
23	Meghalaya	62.6	65.4	59.6	75.5	77.2	73.8
24	Mizoram	88.8	90.7	86.7	91.6	93.7	89.4
25	Nagaland	66.6	71.2	61.5	80.1	83.3	76.7
26	Sikkim	68.8	76.0	60.4	82.2	87.3	76.4
27	Tripura	73.2	81.0	64.9	87.8	92.2	83.2
28	Uttaranchal	71.6	83.3	59.6	79.6	88.3	70.7
<b>Union Territories</b>							
29	Andaman & Nicobar Islands	81.3	86.3	75.2	86.3	90.1	81.8
30	Chandigarh	81.9	86.1	76.5	86.4	90.5	81.4
31	Dadra & Nagar Haveli	57.6	71.2	40.2	77.7	86.5	65.9
32	Daman & Diu	78.2	86.8	65.6	87.1	91.5	79.6
33	NCT Delhi	81.7	87.3	74.7	86.3	91.0	80.9
34	Lakshadweep	86.7	92.5	80.5	92.3	96.1	88.3
35	Pondicherry	81.2	88.6	73.9	86.6	92.1	81.2
	<b>INDIA</b>	<b>64.8</b>	<b>75.3</b>	<b>53.7</b>	<b>74.0</b>	<b>82.1</b>	<b>65.5</b>

Source:

1. Census of India 2011, Provisional Population Totals, Paper 1, March 2011, Registrar General and Census Commissioner, India.

Table A-4 India: Deviation from the projected population, 2011										
S.No.	States	Population 2011 (in'000) <sup>1</sup>			Projected Population 2011 (in'000) <sup>2</sup>			Deviation from 2011 projected population (in'000)		
		Person	Male	Female	Person	Male	Female	Person	Male	Female
1	2	3	4	5	6	7	8	9	10	11
<b>Major States</b>										
1	Andhra Pradesh	84,666	42,510	42,156	84,735	42,611	42,124	-69	-101	32
2	Assam	31,169	15,955	15,214	30,568	15,698	14,870	601	257	344
3	Bihar	103,805	54,185	49,619	97,720	50,640	47,080	6,085	3,545	2,539
4	Chhattisgarh	25,540	12,828	12,712	24,258	12,177	12,081	1,282	651	631
5	Gujarat	60,384	31,482	28,901	59,020	31,005	28,015	1,364	477	886
6	Haryana	25,353	13,505	11,848	25,439	13,754	11,685	-86	-249	163
7	Jharkhand	32,966	16,932	16,035	31,472	16,198	15,274	1,494	734	761
8	Karnataka	61,131	31,058	30,073	59,419	30,140	29,279	1,712	918	794
9	Kerala	33,388	16,021	17,366	34,563	16,859	17,704	-1,175	-838	-338
10	Madhya Pradesh	72,598	37,613	34,985	72,200	37,673	34,527	398	-60	458
11	Maharashtra	112,373	58,361	54,012	112,660	58,844	53,816	-287	-483	196
12	Orissa	41,947	21,202	20,746	40,750	20,602	20,148	1,197	600	598
13	Punjab	27,704	14,635	13,069	27,678	14,886	12,792	26	-251	277
14	Rajasthan	68,621	35,620	33,001	67,830	35,394	32,436	791	226	565
15	Tamil Nadu	72,139	36,159	35,980	67,444	33,852	33,592	4,695	2,307	2,388
16	Uttar Pradesh	199,581	104,596	94,985	200,764	105,798	94,966	-1,183	-1,202	19
17	West Bengal	91,348	46,927	44,420	89,499	46,045	43,454	1,849	882	966
<b>Minor States</b>										
18	Arunachal Pradesh	1,383	720	662	1,241	654	587	142	66	75
19	Goa	1,458	741	717	1,767	926	841	-309	-185	-124
20	Himachal Pradesh	6,857	3,474	3,383	6,793	3,471	3,322	64	3	61
21	Jammu & Kashmir	12,549	6,666	5,883	11,718	6,139	5,579	831	527	304
22	Manipur	2,722	1,370	1,352	2,449	1,235	1,214	273	135	138
23	Meghalaya	2,964	1,493	1,471	2,621	1,325	1,296	343	168	175
24	Mizoram	1,091	552	539	1,004	517	487	87	35	52
25	Nagaland	1,981	1,026	955	2,249	1,180	1,069	-268	-154	-114
26	Sikkim	608	322	286	612	325	287	-4	-3	-1
27	Tripura	3,671	1,872	1,799	3,616	1,851	1,765	55	21	34
28	Uttaranchal	10,117	5,154	4,963	9,943	5,072	4,871	174	82	92
<b>Union Territories</b>										
29	Andaman & Nicobar Islands	380	202	178	494	261	233	-114	-59	-55
30	Chandigarh	1,055	580	474	1,438	832	606	-383	-252	-132
31	Dadra & Nagar Haveli	343	193	150	354	194	160	-11	-1	-10
32	Daman & Diu	243	150	93	270	175	95	-27	-25	-2
33	NCT Delhi	16,753	8,976	7,777	18,451	10,215	8,236	-1,698	-1,239	-459
34	Lakshadweep	64	33	31	76	38	38	-12	-5	-7
35	Pondicherry	1,244	610	634	1,391	730	661	-147	-120	-27
	<b>INDIA</b>	<b>1,210,193</b>	<b>623,724</b>	<b>586,469</b>	<b>1,192,506</b>	<b>617,316</b>	<b>575,191</b>	<b>17,687</b>	<b>6,408</b>	<b>11,278</b>

Source:

1. Census of India 2011, Provisional Population Totals, Paper 1, March 2011, Registrar General and Census Commissioner, India.
2. Census of India 2001 : Population Projections for India and States 2001-2026, Report of the Technical Group on Population Projections Constituted by the National Commission on Population, Office of The Registrar General and Census Commissioner, India, 2006.

## **About MIPD**

Parivar Seva Sanstha, a national NGO working in the areas of reproductive health for the last 30 years, has established Management Institute of Population and Development (MIPD) to improve the quality of life of people by enhancing management capacity to meet challenges in population and development, both in public and private sectors.

### **Mission**

To enhance management capacity to meet continuous challenges in Population and development

### **Objective**

To build and enhance research and management capacity in specialized areas so that there is an increased availability and utilization of professionals to efficiently and effectively manage health, population and development programmes.

### **Thrust Areas**

- Population, Reproductive and Child Health
- HIV/AIDS
- Health Care and Nutrition
- Health Economics and Financing
- Women Empowerment
- Aging
- Urbanization and Migration
- Labor Force and its Productivity
- Environment and Water
- Poverty

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The affairs of the Institute are managed by two specialized committees:

- The Management Advisory Board (MAB)
- The Executive Committee (EC)

MAB is chaired by Prof. M.S. Swaminathan. The other members of MAB and EC are from diversified fields such as academics, research and management in the area of population and development and include amongst others:

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- Amitabh Kundu, *Professor, JNU, New Delhi*
- Shri Ram Lubhaya, *IAS, Government of Rajasthan, Jaipur*
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- Dr. Jay Satia, *Exec. Director, ICOMP, Kuala Lumpur*
- Dr. N K Sethi, *Senior Advisor, Health Planning Commission, New Delhi*



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