

# 3

## SIZE, GROWTH RATE AND DISTRIBUTION OF POPULATION

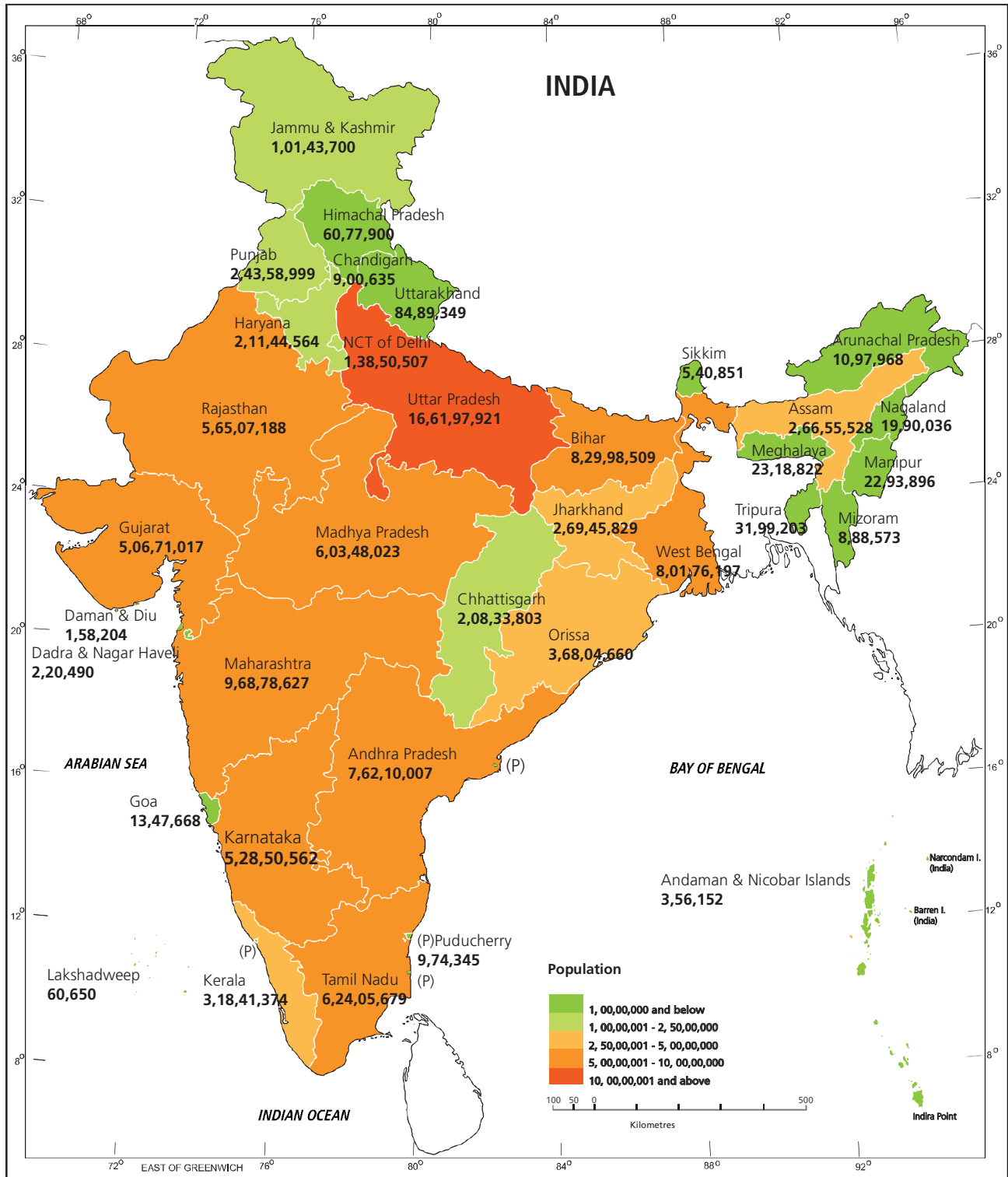
 Figures  Maps  Tables/Statements  Notes





# Map 4

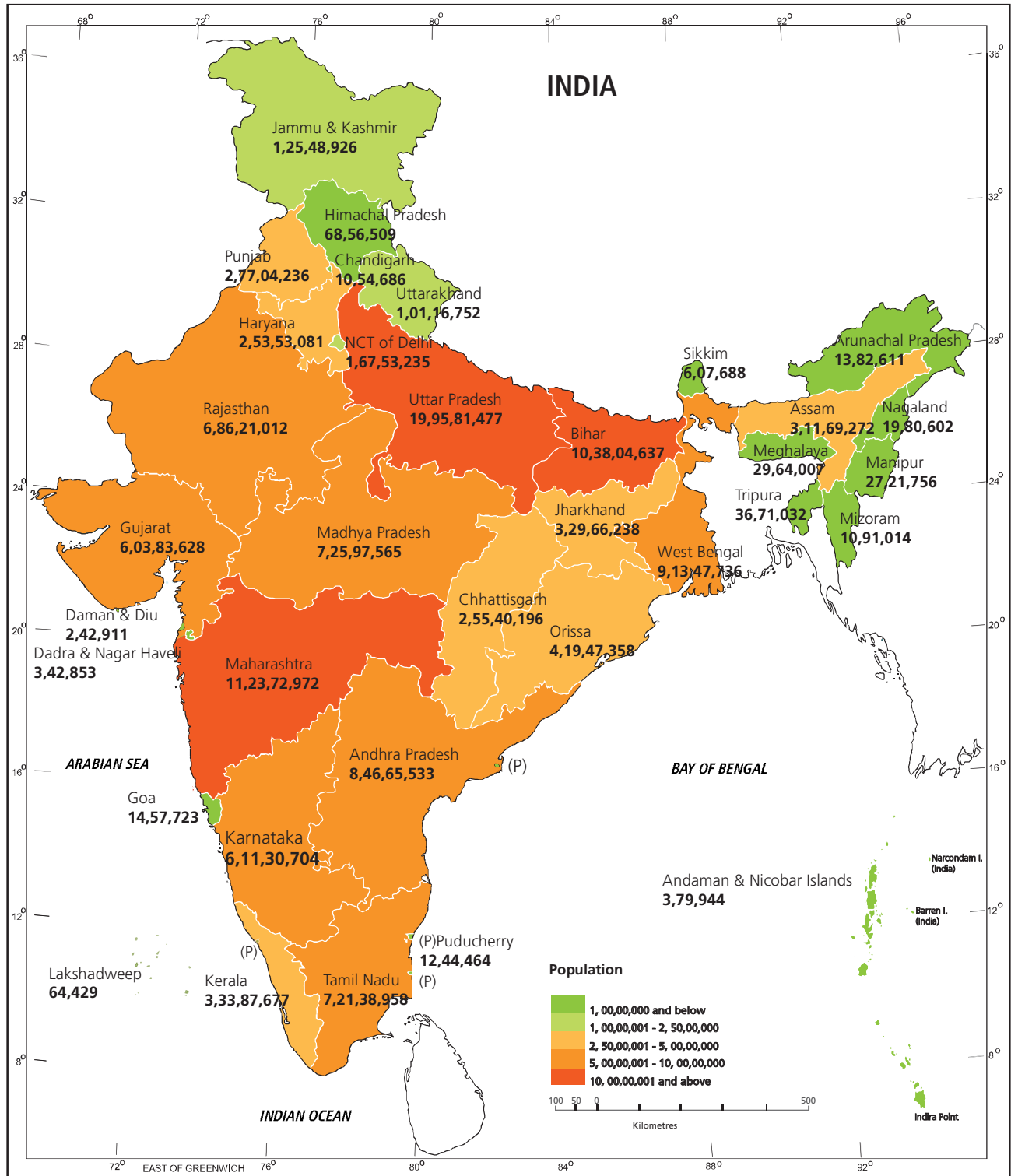
## Population, 2001 (States/Union Territories)





Map 5

Population, 2011 (States/Union Territories)



# 3

## Size, Growth Rate and Distribution of Population

### ABSOLUTE NUMBERS

The population of India at 0:00 hours of 1st March, 2011, as per the provisional population totals of Census 2011, is 1,210,193,422 compared to a total of 1,028,737,436 in 2001<sup>1</sup>. In absolute terms, the population of India has increased by more than 181 million during the decade 2001-2011. The absolute addition to the population during the decade 2001-2011 is slightly lower than the population of Brazil, the fifth most populous country in the world!

### Notes

- 1 For comparability with earlier results, the 2011 and 2001 totals include estimated population of Purul, Pao Mata and Mao Maran sub-divisions of Senapati district of Manipur.

### Source

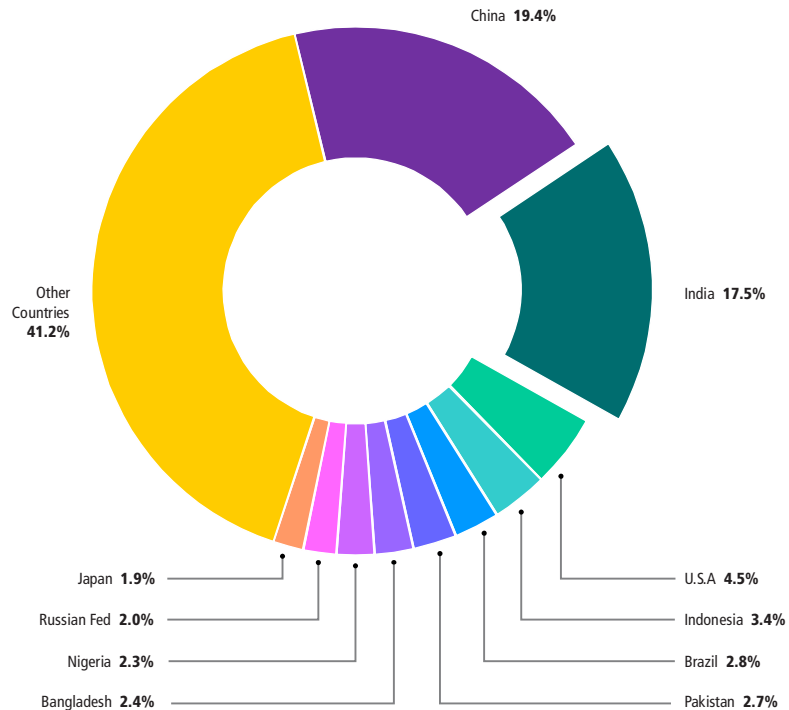
- 2 Population Division of the Department of Economic and Social Affairs of the United Nations Secretariat, World Population Prospects: The 2008 Revision.

### INDIA IN WORLD POPULATION

The estimated global population in 2010 was 6908.7<sup>2</sup> million. The population of the ten most populous countries of the world are given in Statement 1. Their relative share in the global population is shown in Figure 1. Population of these 10 countries have all grown over the last decade, except in Russian Federation, which has declined. At present, these ten countries account for nearly three-fifth of the world population. The three most populous ones, namely, China, India and USA, together account for four of every ten persons of the world. At present, a little more than one out of every six persons in the world is from India.

### Figure 1

India in World Population



The population of India, at 1210.2 million, is almost equal to the combined population of U.S.A., Indonesia, Brazil, Pakistan, Bangladesh and Japan put together- the population of these six countries totals 1214.3 million!

The population of India has increased by more than 181 million during the decade 2001-2011. The absolute addition is slightly lower than the population of Brazil, the fifth most populous country in the world!

 **Statement 1**
**Population of selected countries**

| Sl. No | Country         | Reference date | Population (In millions) | Decadal change (in %) |
|--------|-----------------|----------------|--------------------------|-----------------------|
| 1      | China           | 01.11.2010     | 1,341.0                  | 5.43                  |
| 2      | India           | 01.03.2011     | 1,210.2                  | 17.64                 |
| 3      | U.S.A           | 01.04.2010     | 308.7                    | 7.26                  |
| 4      | Indonesia       | 31.05.2010     | 237.6                    | 15.05                 |
| 5      | Brazil          | 01.08.2010     | 190.7                    | 9.39                  |
| 6      | Pakistan        | 01.07.2010     | 184.8                    | 24.78                 |
| 7      | Bangladesh      | 01.07.2010     | 164.4                    | 16.76                 |
| 8      | Nigeria         | 01.07.2010     | 158.3                    | 26.84                 |
| 9      | Russian Fed.    | 01.07.2010     | 140.4                    | -4.29                 |
| 10     | Japan           | 01.10.2010     | 128.1                    | 1.1                   |
|        | Other Countries | 01.07.2010     | 2844.7                   | 15.43                 |
|        | World           | 01.07.2010     | 6908.7                   | 12.97                 |

 **Notes**

- For China<sup>3</sup>, USA<sup>4</sup>, Indonesia<sup>5</sup>, Brazil<sup>6</sup> and Japan<sup>7</sup>, population are as per the preliminary/ provisional Census figures provided in the respective Govt. websites. For comparability with Census 2000 figures, the population of Japan before adjustment has been considered.
- Source for other countries: World Population Prospects<sup>8</sup>: 2008 updated
- The percent decadal changes for China, Indonesia and Brazil have been adjusted to take care of the change in reference dates of two consecutive censuses of 2000 and 2010.

 **Sources**

- [http://www.stats.gov.cn/english/newsandcomingevents/t20110228\\_402705764.htm](http://www.stats.gov.cn/english/newsandcomingevents/t20110228_402705764.htm) paragraph XI, accessed on 14th March 2011
- <http://www.census.gov/> the figure is US resident population.
- [http://dds.bps.go.id/eng/tab\\_sub/view.php?tabel=1&daftar=1&id\\_subyek=12&notab=1](http://dds.bps.go.id/eng/tab_sub/view.php?tabel=1&daftar=1&id_subyek=12&notab=1) accessed on 23rd March 2011.
- [http://www.ibge.gov.br/censo2010/primeiros\\_dados\\_divulgados/index.php?uf=00](http://www.ibge.gov.br/censo2010/primeiros_dados_divulgados/index.php?uf=00) accessed on 9th March 2011.
- <http://www.stat.go.jp/english/data/kokusei/index.htm> accessed on 17th March 2011.
- Population Division of the Department of Economic and Social Affairs of the United Nations Secretariat, World Population Prospects: The 2008 Revision, <http://esa.un.org/UNPPP/p2k0data.asp> accessed on 17th March 2011
- Ibid.

The gap between India, the country with the second largest population in the world and China, the country with the largest population in the world has narrowed from 238 million in 2001 to nearly 131 million in 2011. On the other hand, the gap between India and the United States of America, which has the third largest population, has now widened to about 902 million from 741 million in 2001. In 1950, China with 22 percent share of the world population was the world's most populous country, followed by India, which had a share of 14.2 percent. The population of India is almost equal to the combined population of U.S.A., Indonesia, Brazil, Pakistan, Bangladesh and Japan put together- the population of these six countries totals 1214.3 million!

A point that is striking is that while India accounts for a meagre 2.4 percent of the world surface area of 135.79 million square kms, it supports and sustains a whopping 17.5 percent of the world population. In contrast, the USA accounts for 7.2 percent of the surface area with only 4.5 percent of the world population. As such, among the ten most populous countries of the world, only Bangladesh has a higher population density compared to India<sup>9</sup>.

The United Nations has estimated that the world population grew at an annual rate of 1.23 percent during 2000-2010. China registered a much lower annual growth rate of population (0.53 percent) during 2000-2010, as compared to India (1.64 percent during 2001-2011). In fact, the growth rate of China is now third lowest among the ten most populous countries, behind Russian Federation and Japan and it is substantially lower than the USA (0.7 percent). The average annual exponential growth rate for selected countries and the

## Sources

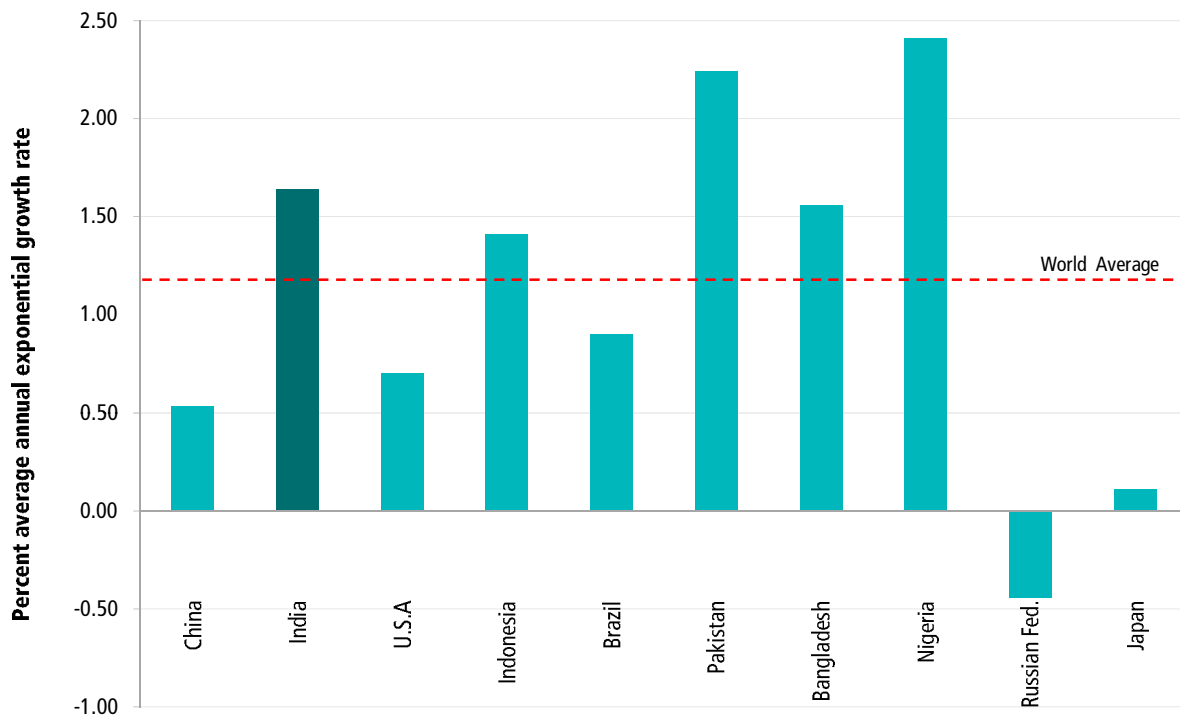
- World Population Prospects: The 2008 Revision, <http://esa.un.org/unpp> accessed on 8th March 2011.
- Population Reference Bureau, Transition in world population, <http://www.prb.org/Publications/PopulationBulletins/2004/sinWorldPopulationPDF249KB.aspx> pp6

world is depicted in Figure 2. With a definite slowing down of population growth in China, it is now estimated that by 2030, India will most likely overtake China to become the most populous country on the earth with 17.9 percent population living here<sup>10</sup>.

World population was transformed in the 20th century as technological and social changes brought steep declines in birth rates and death rates around the world. The century began with 1.6 billion people and ended with 6.1 billion, mainly because of unprecedented growth after 1960. The momentum created by this population growth may carry the world population past 7 billion by 2015. It is almost certain that nearly all future population growth will occur in the developing regions of the world. Urban areas in these regions will absorb most of the additional people<sup>11</sup>.

## Figure 2

Population growth rate, India and selected Countries: 2000-2010



## Source

- Jansankhya Sthirata Kosh, (National Population Stabilisation Fund), Poverty and Population, [http://www.jsk.gov.in/poverty\\_and\\_population.asp](http://www.jsk.gov.in/poverty_and_population.asp) accessed on 17th March 2011.

Data shows that the poor tend to have larger families<sup>12</sup>. In the developing countries, a “youth bulge” ensures that the absolute number of births will rise even as couples are having fewer children. At the other extreme, most countries in Europe now have a “youth dearth” after decades of low fertility. Stagnant growth or even population decline is challenging more countries as fewer workers must support expanding pension and social security systems for their aging citizens. Governments have crafted a range of population policies to address these and other issues over the last half-century. In developing countries, policies include support for family planning and reproductive health programs and efforts to improve women’s status, to enable women to have the number of children they want. In developed countries, particularly Japan and parts of Europe, Governments have implemented policies to promote gender equality in the workplace and ease the burden of childrearing—all to encourage women to have more children. The factors that drive childbearing



## Source

- 13 Population Reference Bureau, Transition in world population, <http://www.prb.org/Publications/PopulationBulletins/2004/sinWorldPopulationPDF249KB.aspx>, pp 4

trends—such as the economy, education, gender relations, and access to family planning—are numerous and complex, and public policies and programs to influence population trends must address many issues at once. Demographic changes often take years to be evident, making it difficult to predict how today's actions will affect the future size and distribution of populations. Small changes in childbearing trends today have huge implications for future population size.<sup>13</sup>

2001-2011 is the first decade (with the exception of 1911-1921) which has actually added lesser population compared to the previous decade.

## POPULATION GROWTH: INDIA 1901 TO 2011

The population of India, at the turn of the twentieth century, was only around 238.4 million. This has increased by more than four times in a period of one hundred and ten years to reach 1210 million in 2011. Interestingly, the population of India grew by one and half times in the first half of the twentieth century, while in the later half it recorded a phenomenal three-fold increase. Statement 2 presents the population of India as recorded in each decadal Census since 1901. Some other indicators of growth rate such as decadal growth rate, change in decadal growth, average annual exponential growth rate and progressive growth rate over 1901 during each decade have also been presented in this statement. Figure 3 shows the decadal growth of population for India during 1901-2011.

## Statement 2

### Population and its growth, India : 1901-2011

| Census Years      | Population     | Decadal growth |                    | Change in decadal growth |         | Average annual exponential growth rate (percent) | Progressive growth rate over 1901 (percent) |
|-------------------|----------------|----------------|--------------------|--------------------------|---------|--|---|
|                   |                | Absolute       | Percent            | Absolute                 | Percent |  |   |
| 1                 | 2              | 3              | 4                  | 5                        | 6       | 7  | 8   |
| 1901              | 23,83,96,327   |                | -                  | -                        | -       | -  | -   |
| 1911              | 25,20,93,390   | 1,36,97,063    | 5.75               | -                        | -       | 0.56   | 5.75  |
| 1921              | 25,13,21,213   | -7,72,177      | (0.31)             | -14469240                | -6.05   | -0.03  | 5.42  |
| 1931              | 27,89,77,238   | 2,76,56,025    | 11.00              | 28428202                 | 11.31   | 1.04   | 17.02                                       |
| 1941              | 31,86,60,580   | 3,96,83,342    | 14.22              | 12027317                 | 3.22    | 1.33   | 33.67                                       |
| 1951 <sup>1</sup> | 36,10,88,090   | 4,24,27,510    | 13.31              | 2744168                  | -0.91   | 1.25   | 51.47                                       |
| 1961 <sup>1</sup> | 43,92,34,771   | 7,81,46,681    | 21.64              | 35719171                 | 8.33    | 1.96   | 84.25                                       |
| 1971              | 54,81,59,652   | 10,89,24,881   | 24.80 <sup>6</sup> | 30778200                 | 3.16    | 2.20   | 129.94                                      |
| 1981 <sup>2</sup> | 68,33,29,097   | 13,51,69,445   | 24.66 <sup>6</sup> | 26244564                 | -0.14   | 2.22   | 186.64                                      |
| 1991 <sup>3</sup> | 84,64,21,039   | 16,30,91,942   | 23.87              | 2,79,22,497              | 17.12   | 2.16   | 255.05                                      |
| 2001 <sup>4</sup> | 1,02,87,37,436 | 18,23,16,397   | 21.54              | 1,92,24,455              | 10.54   | 1.97   | 331.52                                      |
| 2011 <sup>5</sup> | 1,21,01,93,422 | 18,14,55,986   | 17.64              | -8,60,411                | -0.47   | 1.64   | 407.64                                      |

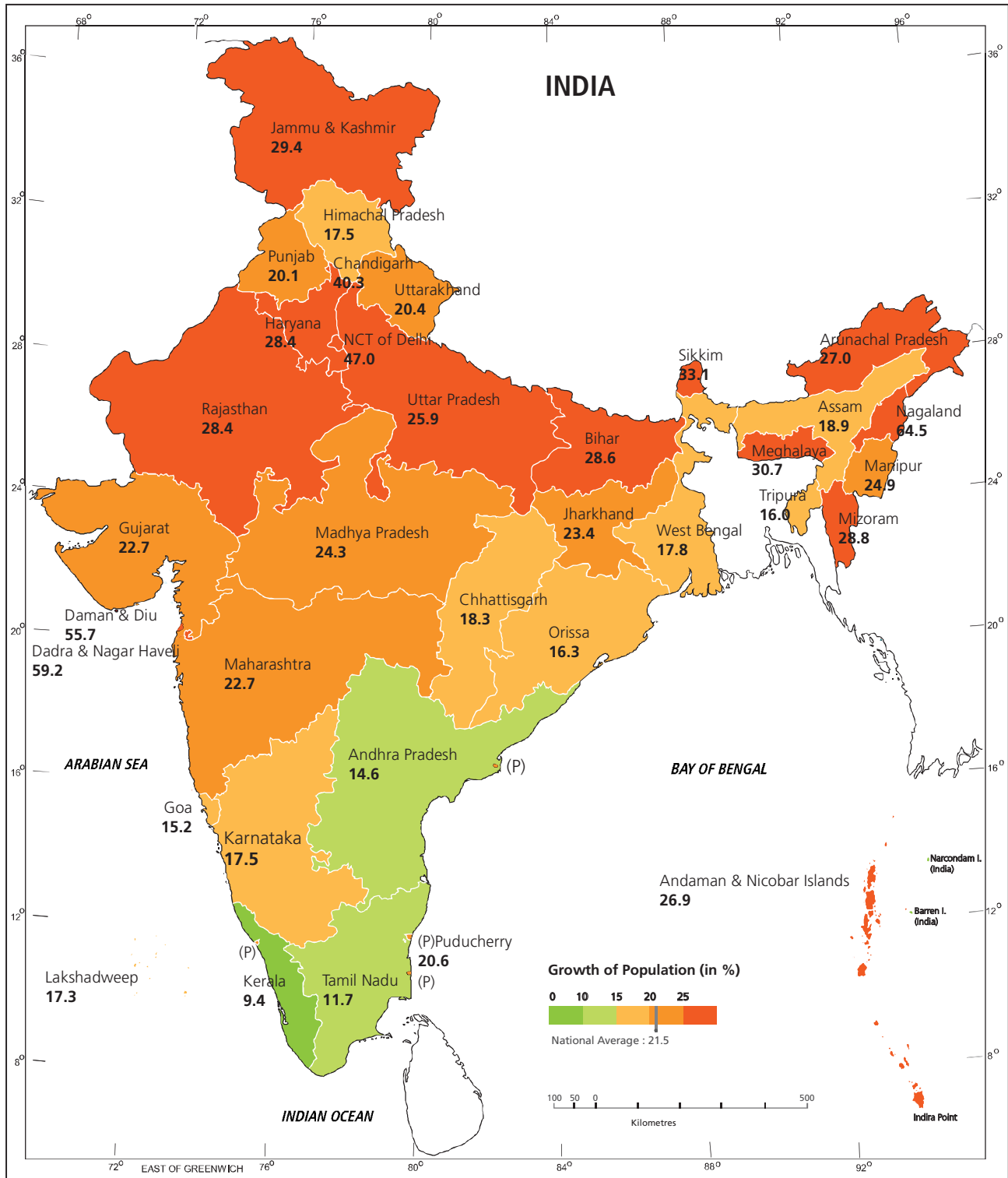
## Notes

- In working out 'Decadal Growth' and 'Percentage Decadal Growth' For India 1941-51 and 1951 -61 the population of Tuensang district for 1951 (7,025) and the population of Tuensang (83,501) and Mon (5,774) districts for 1961 Census of Nagaland state have not been taken into account as the areas were censused for the first time in 1951 and the same are not comparable.
- The 1981 Census could not be held owing to disturbed conditions prevailing in Assam. Hence the population figures for 1981 Census of Assam have been worked out by 'interpolation.'
- The 1991 Census could not be held owing to disturbed conditions prevailing in Jammu and Kashmir. Hence the population figures for 1991 Census of Jammu and Kashmir have been worked out by 'interpolation.'
- Includes estimated population of Paomata, Mao Maram and Purul sub-divisions of Senapati District of Manipur for 2001.
- Includes estimated population of Paomata, Mao Maram and Purul sub-divisions of Senapati District of Manipur for 2011.
- The percentage decadal growth shown in column 4 of Statement 2 indicates a decline from 24.80 percent during the decade 1961-71 to 24.66 percent during the decade 1971-81, while the average annual exponential growth rate presented in column 7 of this statement shows an increase from 2.20 to 2.22. This is because the percent decadal variation has not been adjusted for the shift in reference data in 1971. The decadal variation for 1961-71 relates to 121 months while that 1971-81 relates to 119 months. If we adjust for this difference, the percentage decadal growth works out to 24.59 percent for 1961-71 and 24.87 percent for the decade 1971-81.



## Map 6

### Growth of Population, 1991-2001 (States/Union Territories)

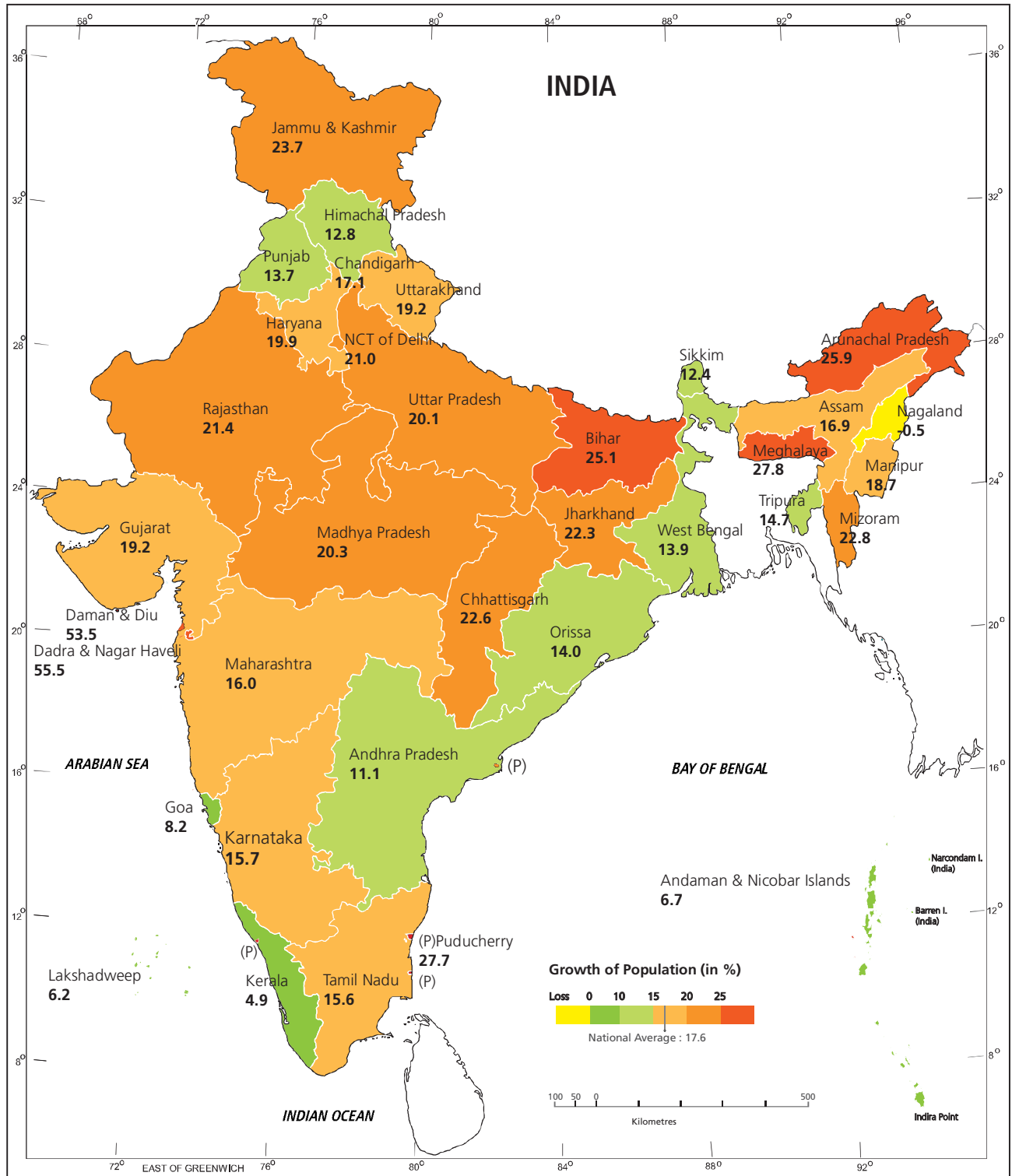






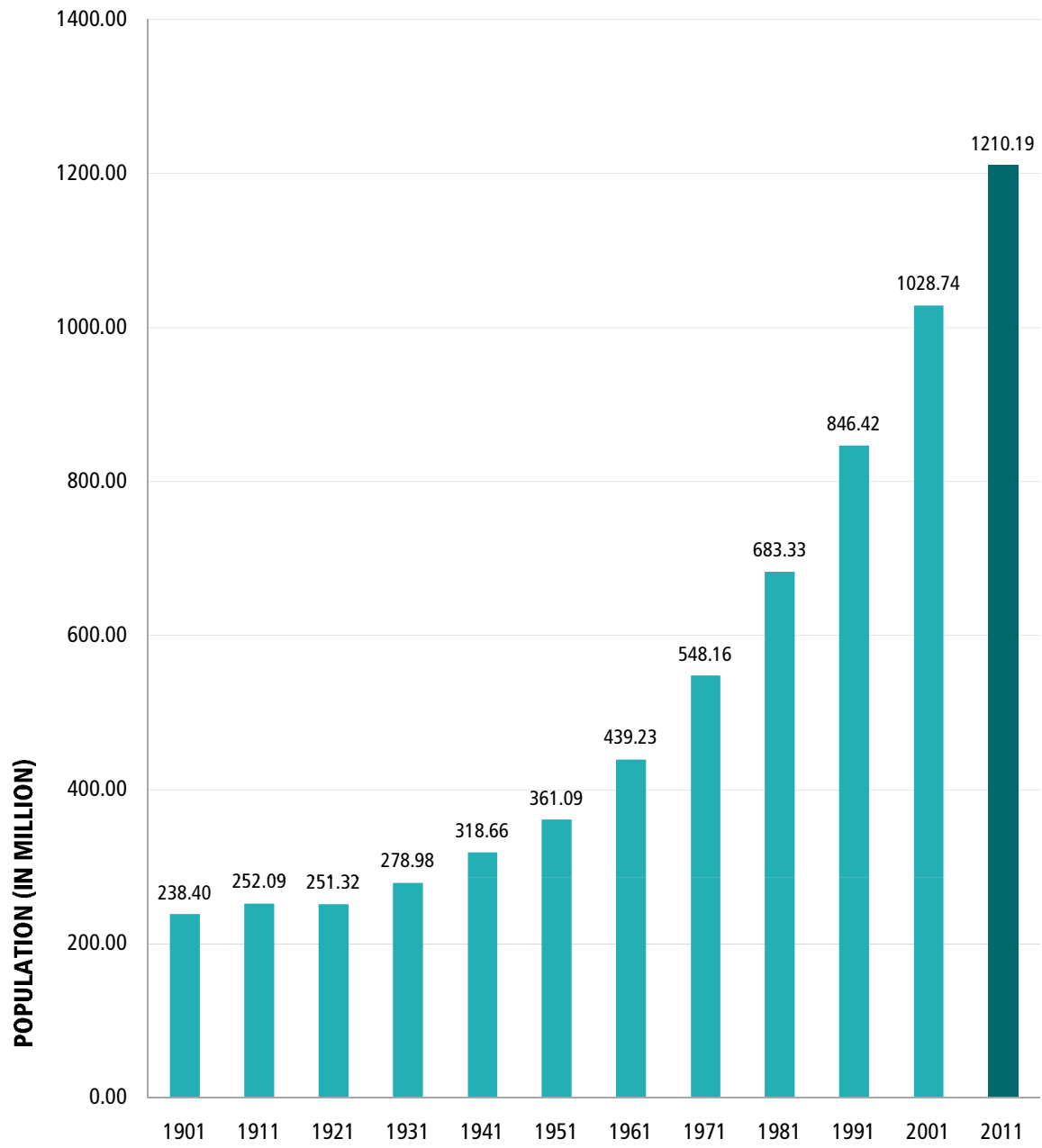
Map 7

Growth of Population, 2001-2011 (States/Union Territories)



**Figure 3**

**India  
Population (in millions): 1901-2011**



One of the important features of the present decade is that, 2001-2011 is the first decade (with the exception of 1911-1921) which has actually added lesser population compared to the previous decade. This implies that as a result of the combination of population momentum and somewhat impeded fertility, although India continues to grow in size, its pace of net addition is on the decrease.

In absolute terms, the population of India has increased by about 181 million during the decade 2001-2011. Although, the net addition in population during each decade has increased consistently, the changes in net addition has shown a steady declining trend over the decades starting from 1961. While 27.9 million more people were added between the decade 1981-1991 than between 1971-1981, this number declined to 19.2 million for the decades between 1981-1991 and 1991-2001. The provisional results of 2011 shows that between 2001 and 2011, the net addition is less than that of the previous decade by 0.86 million.

**POPULATION GROWTH RATES**

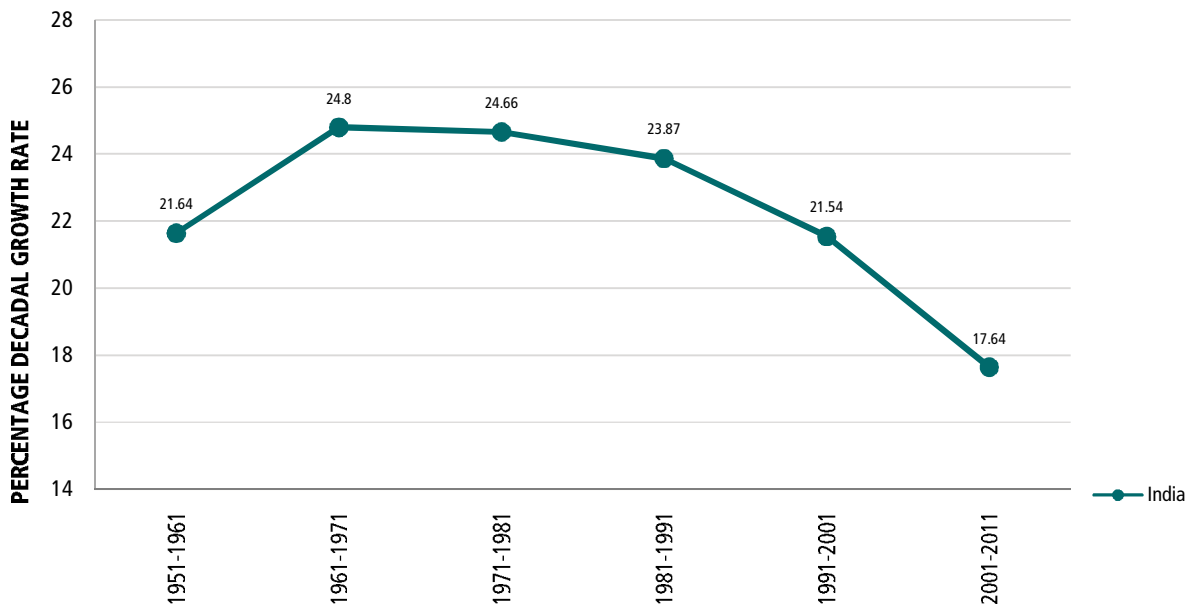
The percentage decadal growth during 2001-2011 has registered the sharpest decline since independence. For 2001-2011, this decadal growth has become 17.64 percent, a decrease of 3.90 percentage points from 21.54 percent for the period 1991-2001.

It is significant that the percentage decadal growth during 2001-2011 has registered the sharpest decline since independence. It declined from 23.87 percent for 1981-1991 to 21.54 percent for the period 1991-2001, a decrease of 2.33 percentage point. For 2001-2011, this decadal growth has become 17.64 percent, a further decrease of 3.90 percentage points.

Similarly, the average exponential growth rate for 2001-2011 has declined to 1.64 percent per annum from 1.97 percent per annum during 1991-2001. The average annual exponential growth rate during 1981-1991 was 2.16. Figure 4 depicts the percentage decadal growth rate of independent India.

**Figure 4**

**Percentage decadal growth rates of population, India: 1951-1961 to 2001-2011**



## POPULATION: STATES AND UNION TERRITORIES

Uttar Pradesh continues to be the most populous State in the country with almost 200 million people living here, which is more than the population of Brazil.

The combined population of Uttar Pradesh and Maharashtra (the second most populous State), at 312 million, is substantially greater than the population of USA.

A little more than six of every ten Indians live in one of the seven States:

|                 |               |
|-----------------|---------------|
| Uttar Pradesh:  | 199.6 million |
| Maharashtra:    | 112.4 million |
| Bihar:          | 103.8 million |
| West Bengal:    | 91.3 million  |
| Andhra Pradesh: | 84.7 million  |
| Madhya Pradesh: | 72.6 million  |
| Tamil Nadu:     | 72.1 million  |

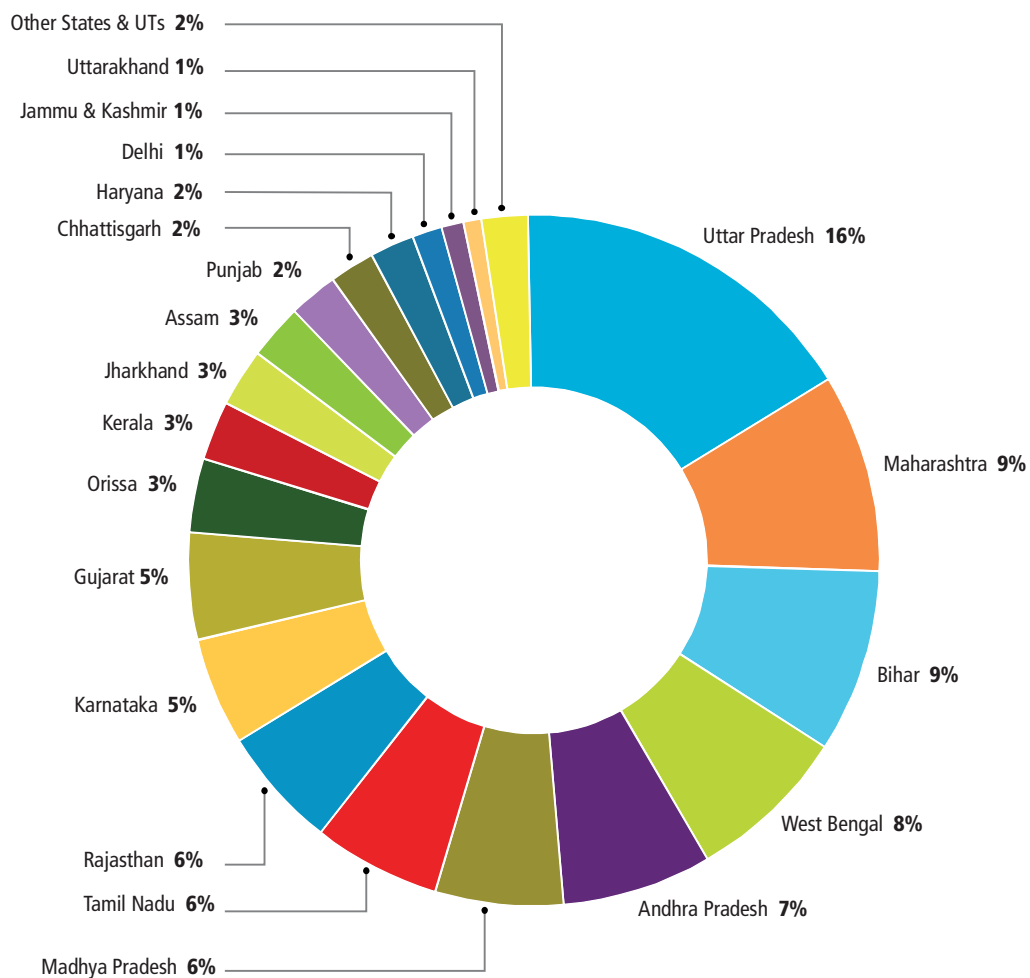
Uttar Pradesh continues to be the most populous State in the country with almost 200 million people living here, which is more than the population of Brazil, the fifth most populous country in the world. The combined population of Uttar Pradesh and Maharashtra (the second most populous State), at 312 million, is substantially greater than the population of USA, the third most populous country of the world. Twenty States and Union Territories now have a population of over ten million. On the other extreme, there are five States and Union Territories in the country that are yet to reach the one million mark. Statement 3 and Figure 5 show the relative share of population of the States and Union Territories to the total population of India as per Census 2011. The statement also provides the ranking of these States and Union Territories by Population size in 2001 and 2011.

While Uttar Pradesh (199.6 million), Maharashtra (112.4 million), Bihar (103.8 million), West Bengal (91.3 million) and Andhra Pradesh (84.7 million) have all held on to the top five slots in terms of their ranking in 2011 as compared to 2001, Madhya Pradesh (72.6 million), which has moved on to take the sixth position from its seventh position, pushing Tamil Nadu (72.1 million) now to the seventh spot. A little more than six of every ten Indians live in one of these seven States.



**Figure 5**

### Population share of States and Union Territories, India: 2011



 **Statement 3**
**Ranking of States and Union Territories by population: 2001 and 2011**

| Rank In 2011 | India/State/Union Territory # | Population 2011       | Percent to total population of India |               | Rank in 2001 |
|--------------|-------------------------------|-----------------------|--------------------------------------|---------------|--------------|
|              |                               |                       | 2011                                 | 2001          |              |
| 1            | 2                             | 3                     | 4                                    | 5             | 6            |
|              | <b>INDIA</b>                  | <b>1,21,01,93,422</b> | <b>100.00</b>                        | <b>100.00</b> |              |
| 1            | Uttar Pradesh                 | 19,95,81,477          | 16.49                                | 16.16         | 1            |
| 2            | Maharashtra                   | 11,23,72,972          | 9.29                                 | 9.42          | 2            |
| 3            | Bihar                         | 10,38,04,637          | 8.58                                 | 8.07          | 3            |
| 4            | West Bengal                   | 9,13,47,736           | 7.55                                 | 7.79          | 4            |
| 5            | Andhra Pradesh                | 8,46,65,533           | 7.00                                 | 7.41          | 5            |
| 6            | Madhya Pradesh                | 7,25,97,565           | 6.00                                 | 5.87          | 7            |
| 7            | Tamil Nadu                    | 7,21,38,958           | 5.96                                 | 6.07          | 6            |
| 8            | Rajasthan                     | 6,86,21,012           | 5.67                                 | 5.49          | 8            |
| 9            | Karnataka                     | 6,11,30,704           | 5.05                                 | 5.14          | 9            |
| 10           | Gujarat                       | 6,03,83,628           | 4.99                                 | 4.93          | 10           |
| 11           | Orissa                        | 4,19,47,358           | 3.47                                 | 3.58          | 11           |
| 12           | Kerala                        | 3,33,87,677           | 2.76                                 | 3.10          | 12           |
| 13           | Jharkhand                     | 3,29,66,238           | 2.72                                 | 2.62          | 13           |
| 14           | Assam                         | 3,11,69,272           | 2.58                                 | 2.59          | 14           |
| 15           | Punjab                        | 2,77,04,236           | 2.29                                 | 2.37          | 15           |
| 16           | Chhattisgarh                  | 2,55,40,196           | 2.11                                 | 2.03          | 17           |
| 17           | Haryana                       | 2,53,53,081           | 2.09                                 | 2.06          | 16           |
| 18           | NCT of Delhi #                | 1,67,53,235           | 1.38                                 | 1.35          | 18           |
| 19           | Jammu & Kashmir               | 1,25,48,926           | 1.04                                 | 0.99          | 19           |
| 20           | Uttarakhand                   | 1,01,16,752           | 0.84                                 | 0.83          | 20           |
| 21           | Himachal Pradesh              | 68,56,509             | 0.57                                 | 0.59          | 21           |
| 22           | Tripura                       | 36,71,032             | 0.30                                 | 0.31          | 22           |
| 23           | Meghalaya                     | 29,64,007             | 0.24                                 | 0.23          | 23           |
| 24           | Manipur                       | 27,21,756             | 0.22                                 | 0.22          | 24           |
| 25           | Nagaland                      | 19,80,602             | 0.16                                 | 0.19          | 25           |
| 26           | Goa                           | 14,57,723             | 0.12                                 | 0.13          | 26           |
| 27           | Arunachal Pradesh             | 13,82,611             | 0.11                                 | 0.11          | 27           |
| 28           | Puducherry #                  | 12,44,464             | 0.10                                 | 0.09          | 28           |
| 29           | Mizoram                       | 10,91,014             | 0.09                                 | 0.09          | 30           |
| 30           | Chandigarh #                  | 10,54,686             | 0.09                                 | 0.09          | 29           |
| 31           | Sikkim                        | 6,07,688              | 0.05                                 | 0.05          | 31           |
| 32           | Andaman & Nicobar Islands #   | 3,79,944              | 0.03                                 | 0.03          | 32           |
| 33           | Dadra & Nagar Haveli #        | 3,42,853              | 0.03                                 | 0.02          | 33           |
| 34           | Daman & Diu #                 | 2,42,911              | 0.02                                 | 0.02          | 34           |
| 35           | Lakshadweep #                 | 64,429                | 0.01                                 | 0.01          | 35           |

 Notes: See notes 4 & 5 below Statement 2

## Sources

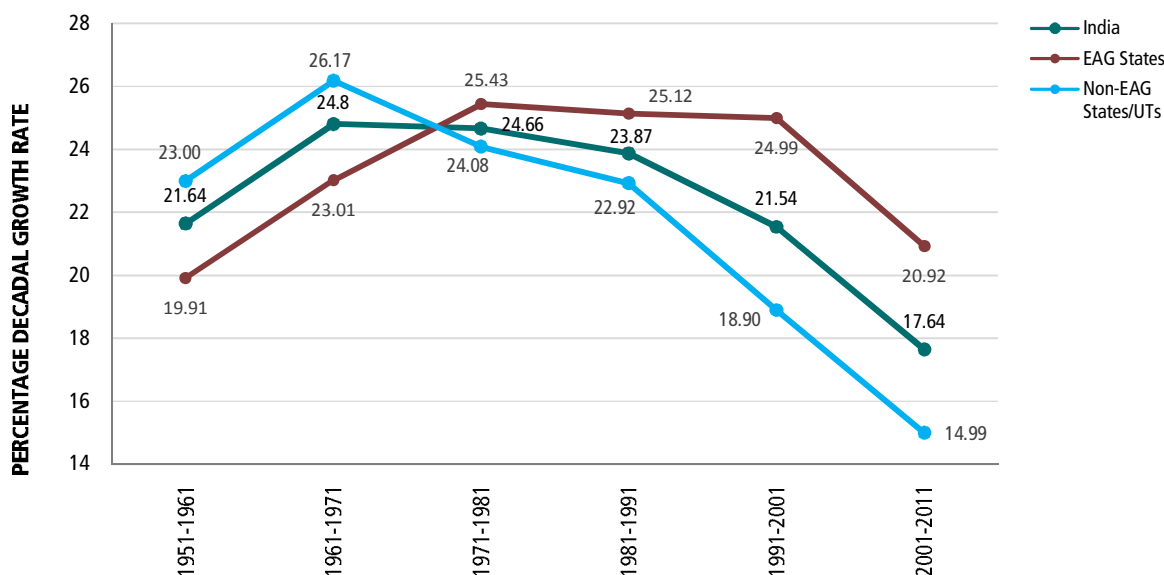
- 14 Tim Dyson, *India's Population - The Past, Twenty-first Century India, Population, Economy, Human Development, and the Environment*, edited by Tim Dyson, Robert Cassen & Leela Visaria, Oxford University Press, pp16

## POPULATION GROWTH RATES: EAG STATES AND NON-EAG STATES

After the Aryan migration about 3500 years ago, there occurred a fundamental shift in the demographic centre of gravity from the Indus valley into the Gangetic plain<sup>14</sup>. The growth of India's population has, since then, followed a pattern similar to those observed in this area. To analyse this a bit more closely, the growth rates of eight States popularly referred to in administrative parlance as the eight Empowered Action Group (EAG) States, namely, Rajasthan, Uttar Pradesh, Uttarakhand, Bihar, Jharkhand, Madhya Pradesh, Chhattisgarh and Orissa is compared with the rest of the States and Union Territories. The EAG group, from 1951 till 2011, have hosted between forty three to forty six percent of India's population. Figure 6 depicts the growth trajectory of India, the EAG group and the non-EAG group during the decades 1951-1961 to 2001-2011.

**Figure 6**

### Growth rates of India, EAG States and non-EAG States and Union Territories, 1951-1961 to 2001-2011



**Notes:** See notes 1 to 6 below Statement 2

EAG States: Rajasthan, Uttar Pradesh, Uttarakhand, Bihar, Jharkhand, Madhya Pradesh, Chhattisgarh and Orissa

Census 2011 marks a milestone in the demographic history of the country as it is perhaps for the first time, there is a significant fall in growth rate of population in the EAG States after decades of stagnation.

Between 1951 and 1971, both the EAG and non-EAG States and Union Territories have grown resulting in an increase in the overall population of India. During this phase, the growth rate for the non-EAG States and Union Territories was more than that of the EAG States. From 1971 onwards, as a result of fertility decline in the non-EAG States and Union Territories there was a continuous fall in their growth. The growth rates in the EAG States stagnated around twenty five percent till 1981-1991. As a result, the decadal growth rate of India, till 1991, was almost at a constant level fluctuating around twenty four percent. During 1991-2001, the growth rate for the EAG States remained same as that in the previous decade, whereas there was continuous reduction in the growth rate of non-EAG States and Union Territories. This was primarily responsible to bring about a significant fall of about 2.3 percent in the growth rate of the country as a whole. During 2001-2011, for the first time, the growth

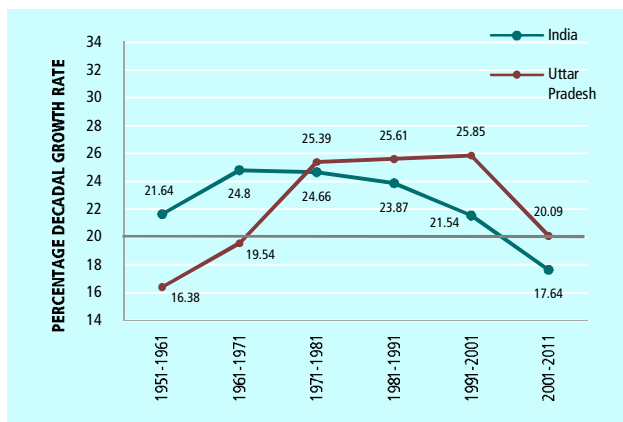
momentum for the EAG States has given the signal of slowing down, falling by about four percentage points. This, together with a similar reduction in the non-EAG States and Union Territories, has brought down the rate of growth for the country by 3.9 percent.

Census 2011 marks a milestone in the demographic history of the country, as it is perhaps for the first time, there is a significant fall in growth rate of population in the EAG States after decades of stagnation. Table 3 gives the percentage decadal growth of each of the States and Union Territories starting from 1901. The decadal growth rates of the eight EAG States from 1951-1961 are depicted in Figure 7.

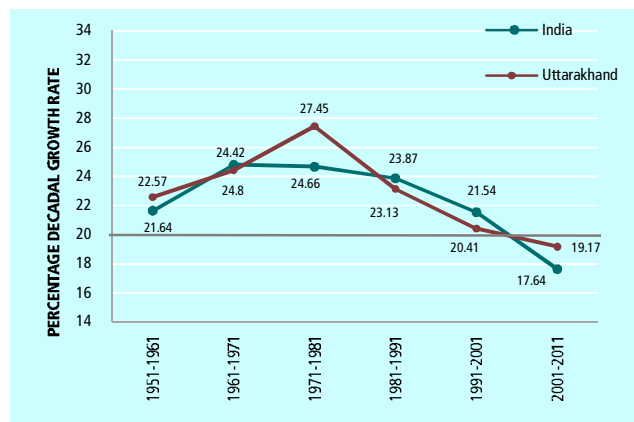
**Figure 7**

**Growth rates of India and EAG States, 1951-1961 to 2001-2011**

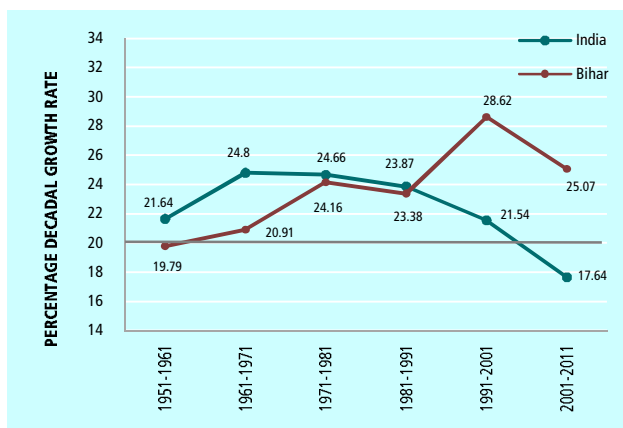
**Uttar Pradesh**



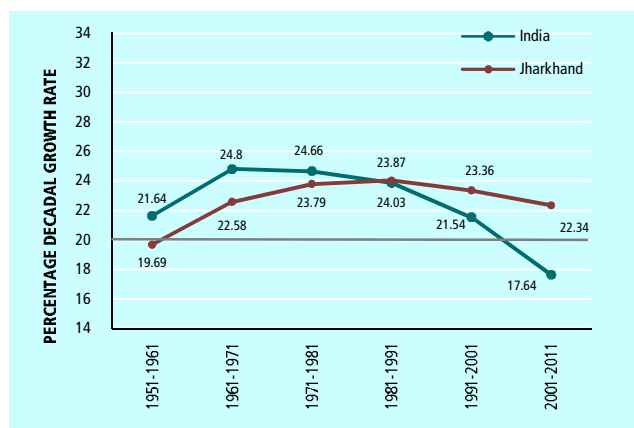
**Uttarakhand**



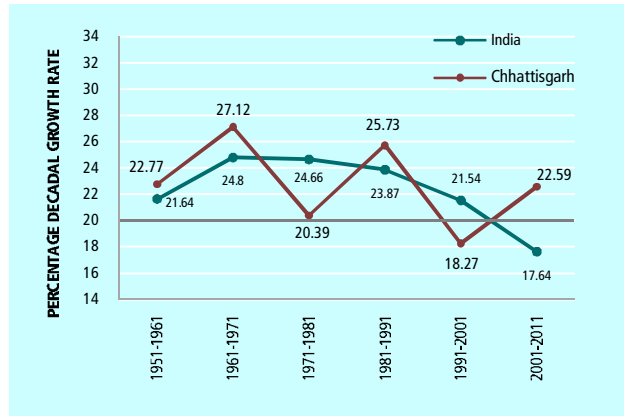
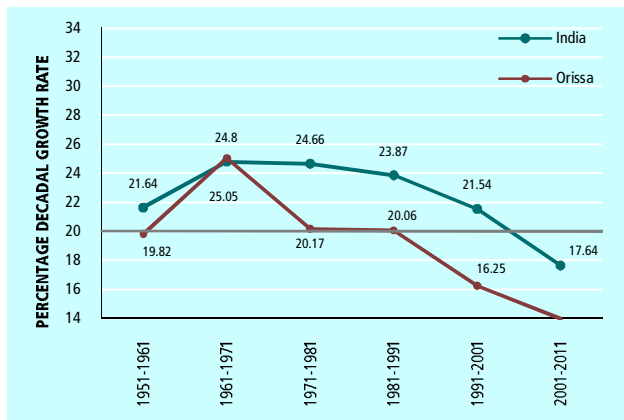
**Bihar**



**Jharkhand**





**Figure 7****Growth rates of India and EAG States, 1951-1961 to 2001-2011****Madhya Pradesh****Chhattisgarh****Rajasthan****Orissa**

Among the EAG States, Uttarakhand and Orissa seem to be performing better than the rest, with the latter registering consistently lower growth rates than the Nation since 1971.

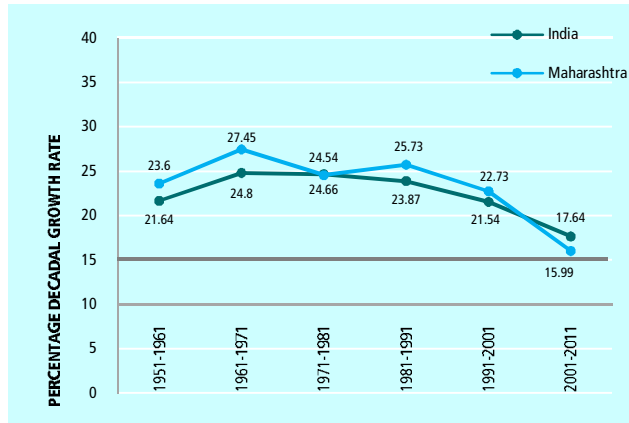
The percentage decadal growth rates of the six most populous States, namely, Uttar Pradesh, Maharashtra, Bihar, West Bengal, Andhra Pradesh and Madhya Pradesh have all fallen during 2001-2011 compared to 1991-2001, the fall being the lowest for Andhra Pradesh (3.5 percentage points) and highest for Maharashtra (6.7 percentage points).

During 2001-2011, the growth rates of almost all States and Union Territories have registered a lower figure compared to the previous decade, namely, 1991-2001. The percentage decadal growth rates of the six most populous States, namely, Uttar Pradesh, Maharashtra, Bihar, West Bengal, Andhra Pradesh and Madhya Pradesh have all fallen during 2001-2011 compared to 1991-2001, the fall being the lowest for Andhra Pradesh (3.5 percentage points) and highest for Maharashtra (6.7 percentage points). Tamil Nadu (3.9 percentage points) and Puducherry (7.1 percentage points) have registering some increase during 2001-2011 over the previous decade. Growth rates for some of the more populous non-EAG States and Union Territories are represented in Figure 8.

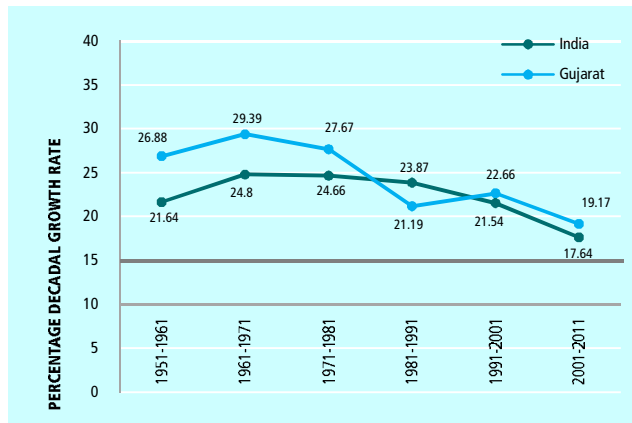
**Figure 8**

**Growth rates of India and some of the more populous non-EAG States and Union Territories, 1951-1961 to 2001-2011**

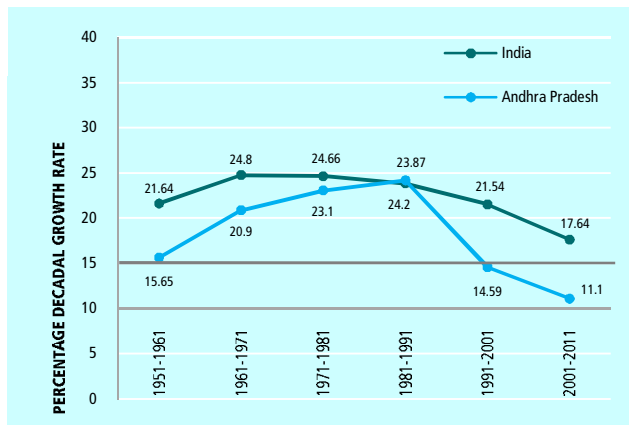
**Maharashtra**



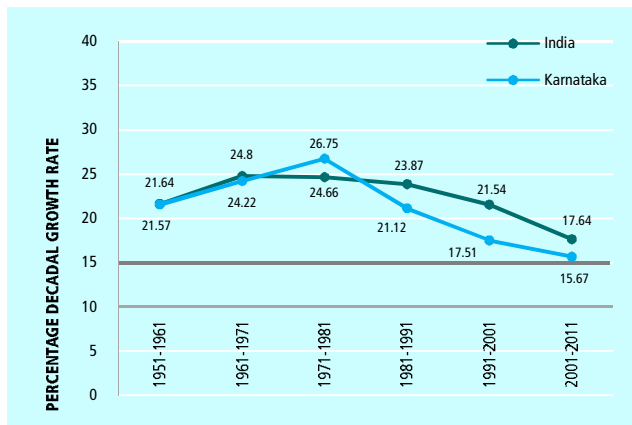
**Gujarat**



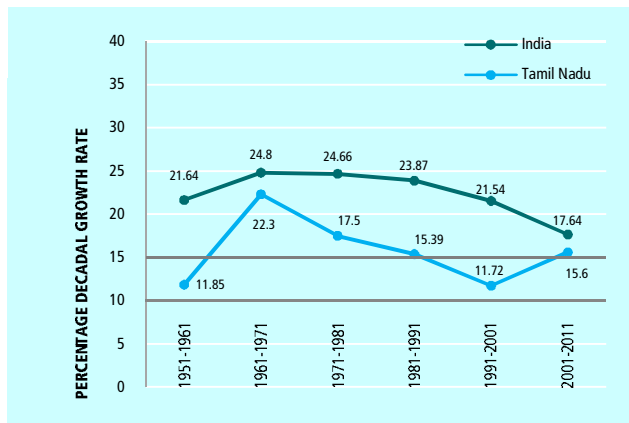
**Andhra Pradesh**



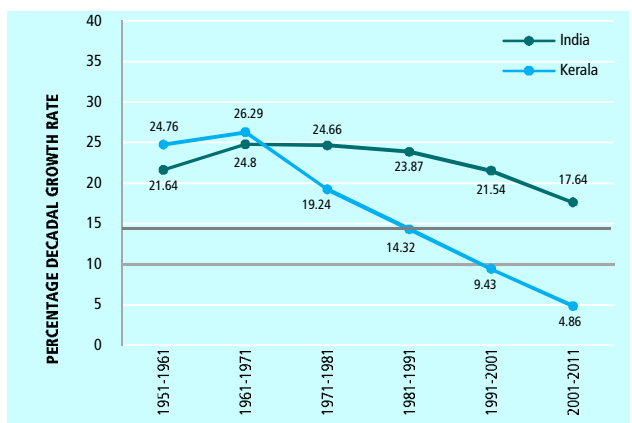
**Karnataka**



**Tamil Nadu**



**Kerala**

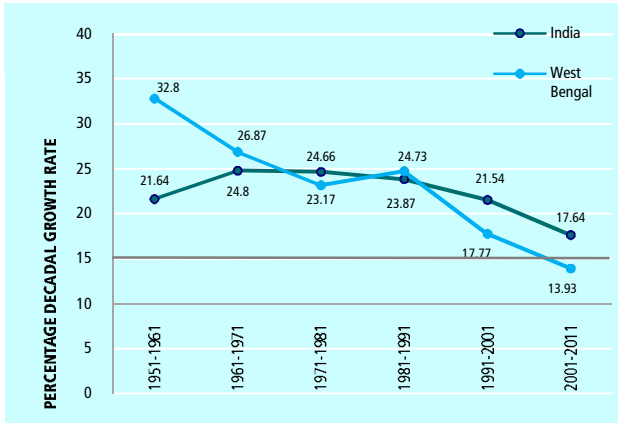




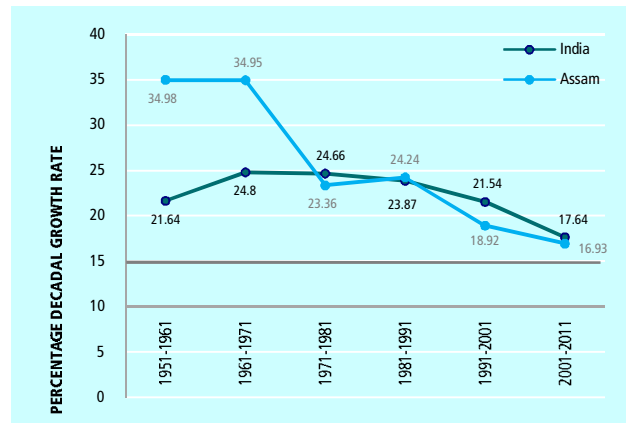
**Figure 8**

### Growth rates of India and some of the more populous non-EAG States and Union Territories, 1951-1961 to 2001-2011

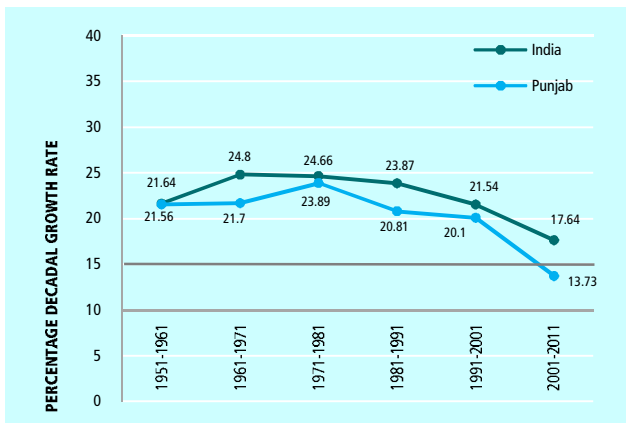
#### West Bengal



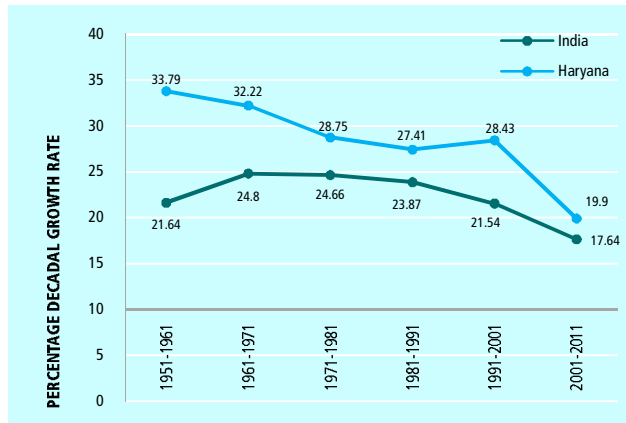
#### Assam



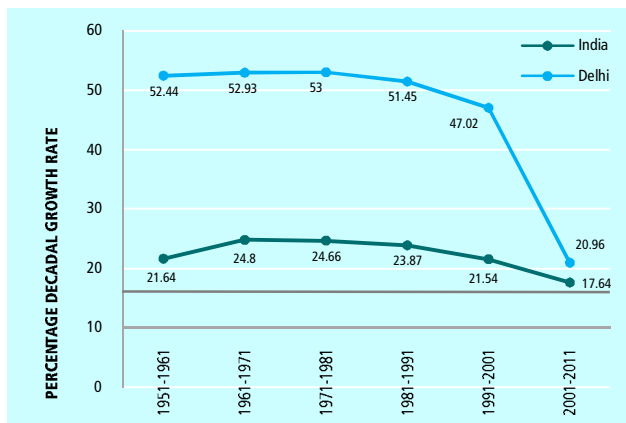
#### Punjab



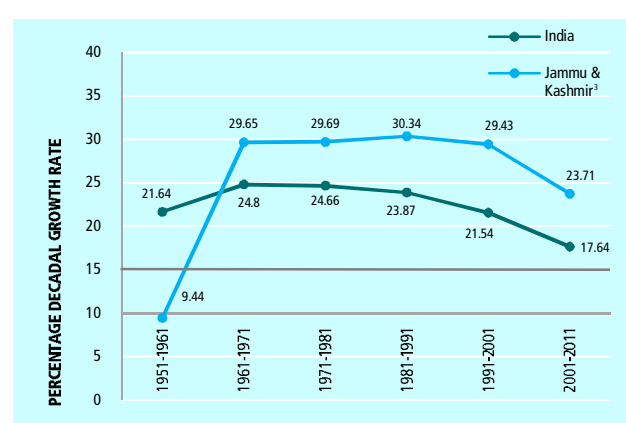
#### Haryana



#### Delhi



#### Jammu & Kashmir



Figures 7 and 8 also show that among the EAG States, the growth of Orissa started to fall from 1971, and its growth rate during 2001-2011, at fourteen percent, is lower than the average of the non-EAG States. On the other, among the more populous non-EAG States, the growth rates of Gujarat, Haryana, Delhi and Jammu & Kashmir are higher than the current National average. The reasons for the same might be different for different States.

### POPULATION GROWTH: ALL STATES AND UNION TERRITORIES

More than nine out of every ten Indians live in States and Union Territories which have shown a declining trend in population growth.

Exactly half of the twenty most populous States, each with a population of ten million or more, have added lesser persons in the decade 2001-2011 compared to the previous one. Had these ten States added the same number of persons during 2001-2011 as they did in the previous decade, everything else remaining the same, India would have added another 9.7 million more persons during this decade. The phenomenon of low growth have started to spread beyond the boundaries of the Southern States during 2001-11, where in addition to Andhra Pradesh, Tamil Nadu and Karnataka in the South, Himachal Pradesh and Punjab in the North, West Bengal and Orissa in the East, and Maharashtra in the West have registered a growth rate between eleven to sixteen percent in 2001-2011 over the previous decade. The Provisional Population Totals of Census 2001 predicted this: "It is also obvious that in the contiguous four major South Indian States fertility decline appears to have well established, stretching to neighbouring Maharashtra on the west and Orissa and West Bengal in the east, whereas in other regions it is rather scattered<sup>15</sup>."

#### Source

- <sup>15</sup> Census of India 2001, Provisional Population Totals, Paper 1 of 2001, pp 50.

Among the smaller States and Union Territories, Dadra and Nagar Haveli and Daman and Diu registered very high growth rates of more than fifty three percentage points. In contrast, Lakshadweep, Andaman & Nicobar Islands and Goa have registered single digit decadal growth. Nagaland is the only State which has registered a small negative growth during 2001-2011 after very high growths in all the previous decades.

Statement 4 gives the selected indicators of population growth in different States and Union territories of India. The percentage decadal growth of population in the inter-Censal period 2001-2011, among the more populous States and Union Territories, varied from a low of 4.86 in Kerala to a very high 25.07 in Bihar. Jammu & Kashmir with 23.71 percent, Chhattisgarh with 22.59 and Jharkhand with 22.34 also registered very high growth rates.


The percentage decadal growth has declined during the census decade 2001-2011 as compared to the previous census decade in all the States and Union Territories except Chhattisgarh, Tamil Nadu and Puducherry, which together constitute about 8.17 percent of India's population.

A decline of more than five percentage points in decadal growth rate from the previous census decade was recorded for fifteen States and Union Territories, namely, for the States Jammu & Kashmir, Punjab, Haryana, Rajasthan, Uttar Pradesh, Sikkim, Nagaland, Manipur, Mizoram, Maharashtra and Goa, and also for the Union Territories of Delhi, Chandigarh, Lakshadweep and Andaman and Nicobar Islands. These fifteen States and Union Territories together account for more than thirty nine per cent of the country's population. Among the larger States and Union Territories, Delhi has registered the sharpest drop of twenty six percentage points during the said period followed by Haryana (8.53), Rajasthan (6.97) and Maharashtra (6.74).

 **Statement 4**

**Population, percentage decadal growth and average annual exponential growth rates 1991-2001 and 2001-2011**

| State/<br>UT<br>Code | India/State/Union<br>Territory # | Total Population      |                       | Percentage<br>decadal<br>growth |               | Change in<br>percentage<br>decadal<br>growth | Average annual<br>exponential<br>growth rate |               |
|----------------------|----------------------------------|-----------------------|-----------------------|---------------------------------|---------------|--|--|---------------|
|                      |                                  | 2001                  | 2011                  | 1991<br>-2001                   | 2001<br>-2011 |  | 1991<br>-2001                                | 2001<br>-2011 |
| 1                    | 2                                | 3                     | 4                     | 5                               | 6             | 7  | 8  | 9             |
|                      | <b>INDIA</b>                     | <b>1,02,87,37,436</b> | <b>1,21,01,93,422</b> | <b>21.54</b>                    | <b>17.64</b>  | <b>-3.9</b>                                  | <b>1.97</b>                                  | <b>1.64</b>   |
| 1                    | Jammu & Kashmir                  | 10143700              | 12548926              | 29.43                           | 23.71         | -5.72  | 2.61   | 2.15          |
| 2                    | Himachal Pradesh                 | 60,77,900             | 68,56,509             | 17.54                           | 12.81         | -4.73  | 1.63   | 1.21          |
| 3                    | Punjab                           | 2,43,58,999           | 2,77,04,236           | 20.1                            | 13.73         | -6.37  | 1.85   | 1.3           |
| 4                    | Chandigarh #                     | 9,00,635              | 10,54,686             | 40.28                           | 17.1          | -23.18                                       | 3.44   | 1.59          |
| 5                    | Uttarakhand                      | 84,89,349             | 1,01,16,752           | 20.41                           | 19.17         | -1.24  | 1.87   | 1.77          |
| 6                    | Haryana                          | 2,11,44,564           | 2,53,53,081           | 28.43                           | 19.9          | -8.53  | 2.53   | 1.83          |
| 7                    | NCT of Delhi #                   | 1,38,50,507           | 1,67,53,235           | 47.02                           | 20.96         | -26.06                                       | 3.93   | 1.92          |
| 8                    | Rajasthan                        | 5,65,07,188           | 6,86,21,012           | 28.41                           | 21.44         | -6.97  | 2.53   | 1.96          |
| 9                    | Uttar Pradesh                    | 16,61,97,921          | 19,95,81,477          | 25.85                           | 20.09         | -5.76  | 2.33   | 1.85          |
| 10                   | Bihar                            | 8,29,98,509           | 10,38,04,637          | 28.62                           | 25.07         | -3.55  | 2.55   | 2.26          |
| 11                   | Sikkim                           | 5,40,851              | 6,07,688              | 33.06                           | 12.36         | -20.7  | 2.9  | 1.17          |
| 12                   | Arunachal Pradesh                | 10,97,968             | 13,82,611             | 27                              | 25.92         | -1.08  | 2.42   | 2.33          |
| 13                   | Nagaland                         | 19,90,036             | 19,80,602             | 64.53                           | -0.47         | -65  | 5.11   | -0.05         |
| 14                   | Manipur                          | 22,93,896             | 27,21,756             | 24.86                           | 18.65         | -6.21  | 2.25   | 1.72          |
| 15                   | Mizoram                          | 8,88,573              | 10,91,014             | 28.82                           | 22.78         | -6.04  | 2.57   | 2.07          |
| 16                   | Tripura                          | 31,99,203             | 36,71,032             | 16.03                           | 14.75         | -1.28  | 1.5  | 1.39          |
| 17                   | Meghalaya                        | 23,18,822             | 29,64,007             | 30.65                           | 27.82         | -2.83  | 2.71   | 2.49          |
| 18                   | Assam                            | 2,66,55,528           | 3,11,69,272           | 18.92                           | 16.93         | -1.99  | 1.75   | 1.58          |
| 19                   | West Bengal                      | 8,01,76,197           | 9,13,47,736           | 17.77                           | 13.93         | -3.84  | 1.65   | 1.31          |
| 20                   | Jharkhand                        | 2,69,45,829           | 3,29,66,238           | 23.36                           | 22.34         | -1.02  | 2.12   | 2.04          |
| 21                   | Orissa                           | 3,68,04,660           | 4,19,47,358           | 16.25                           | 13.97         | -2.28  | 1.52   | 1.32          |
| 22                   | Chhattisgarh                     | 2,08,33,803           | 2,55,40,196           | 18.27                           | 22.59         | 4.32   | 1.69   | 2.06          |
| 23                   | Madhya Pradesh                   | 6,03,48,023           | 7,25,97,565           | 24.26                           | 20.3          | -3.96  | 2.2  | 1.87          |
| 24                   | Gujarat                          | 5,06,71,017           | 6,03,83,628           | 22.66                           | 19.17         | -3.49  | 2.06   | 1.77          |
| 25                   | Daman & Diu #                    | 1,58,204              | 2,42,911              | 55.73                           | 53.54         | -2.19  | 4.53   | 4.38          |
| 26                   | Dadra & Nagar Haveli #           | 2,20,490              | 3,42,853              | 59.22                           | 55.5          | -3.72  | 4.76   | 4.51          |
| 27                   | Maharashtra                      | 9,68,78,627           | 11,23,72,972          | 22.73                           | 15.99         | -6.74  | 2.07   | 1.49          |
| 28                   | Andhra Pradesh                   | 7,62,10,007           | 8,46,65,533           | 14.59                           | 11.1          | -3.49  | 1.37   | 1.06          |
| 29                   | Karnataka                        | 5,28,50,562           | 6,11,30,704           | 17.51                           | 15.67         | -1.84  | 1.63   | 1.47          |
| 30                   | Goa                              | 13,47,668             | 14,57,723             | 15.21                           | 8.17          | -7.04  | 1.43   | 0.79          |
| 31                   | Lakshadweep #                    | 60,650                | 64,429                | 17.3                            | 6.23          | -11.07                                       | 1.61   | 0.61          |
| 32                   | Kerala                           | 3,18,41,374           | 3,33,87,677           | 9.43                            | 4.86          | -4.57  | 0.9  | 0.48          |
| 33                   | Tamil Nadu                       | 6,24,05,679           | 7,21,38,958           | 11.72                           | 15.6          | 3.88   | 1.11   | 1.46          |
| 34                   | Puducherry #                     | 9,74,345              | 12,44,464             | 20.62                           | 27.72         | 7.1  | 1.89   | 2.48          |
| 35                   | Andaman & Nicobar Islands #      | 3,56,152              | 3,79,944              | 26.9                            | 6.68          | -20.22                                       | 2.41   | 0.65          |

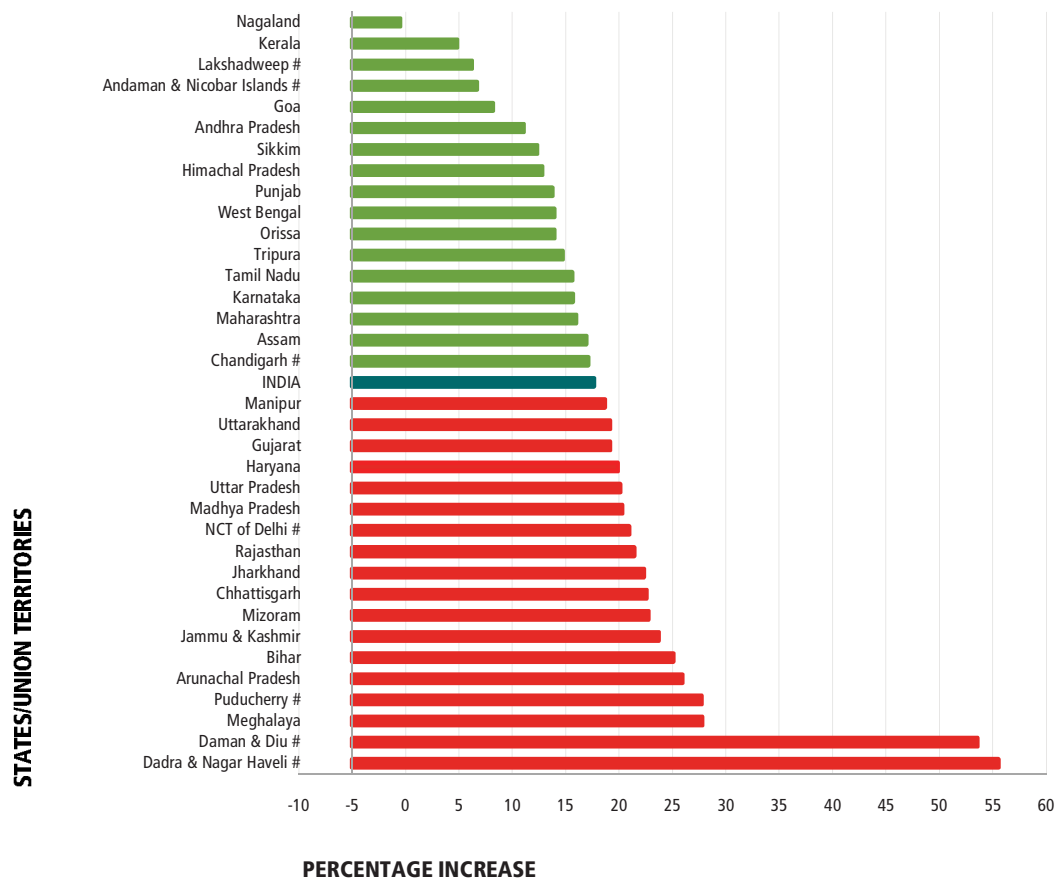
 **Notes:** See notes 3,4 & 5 below Statement 2

The remaining seventeen States and Union Territories have shown a decline of one to five percentage points in their growth rates during 2001-2011 as compared to 1991-2001. These seventeen States and Union Territories together account for more than fifty two per cent of total population. Thus more than nine out of every ten Indians live in States and Union Territories which have shown a declining trend in population growth.

Statement 5 gives the distribution of States and Union Territories by ranges of percentage decadal growth and the percentage of population of these States/ Union Territories. It brings out the major shift in distribution of States and Union Territories by the ranges of growth rates between 1991-2001 and 2001-2011. The number of States and Union Territories with percentage decadal growth below eighteen percent, the current National average, has increased substantially from ten in 1991-2001 to seventeen in the decade 2001-2011, whereas the number of States/Union Territories with percentage decadal growth more than eighteen percent has reduced significantly from twenty five to eighteen. The sum total of the population of the States and Union Territories that registered less than the national growth rate has shown an impressive increase from about thirty four percent in 2001 to forty seven percent in 2011. Twelve States and Union Territories, with a combined population amounting to a little more than twenty four percent of India has grown by less than fifteen percent during 2001-2011. The number of such States and Union Territories was only three during 1991-2001. The relative situation across the States and Union Territories in terms of decadal growth rates can be seen at Figure 9.

 **Figure 9**

**Decadal growth rate of population, India, States and Union Territories: 2001-2011**



## Statement 5

### Number of States and Union Territories by range of percentage decadal growth rates: 1991-2001 and 2001-2011

| Percentage decadal growth | Number of States /Union Territories 1991-2001 | Percentage of population to total population 2001 | Number of States /Union Territories 2001-2011 | Percentage of population to total population 2011 |
|---------------------------|---|---|---|---|
| 1                         | 2   | 3   | 4   | 5   |
| <12                       | 2   | 9.16  | 6   | 10.08   |
| 12-15                     | 1   | 7.41  | 6   | 14.22   |
| 15-18                     | 7   | 17.55   | 5   | 22.96   |
| 18-21                     | 5   | 7.9   | 7   | 32.02   |
| 21-24                     | 3   | 16.96   | 5   | 11.63   |
| 24-27                     | 4   | 22.28   | 2   | 8.69  |
| 27-30                     | 6   | 16.8  | 2   | 0.35  |
| 30+                       | 7   | 1.94  | 2   | 0.05  |

Notes: See notes 3,4 & 5 below Statement 2

During 2001-2011, as many as twenty five States and Union Territories with a share of about eighty five percent registered an annual growth rate of less than two percent. During the period 1991-2001, fifteen States and Union Territories, with a share of about forty two percent of India's population, were in this category.

A similar inference could be drawn from Statement 6 in which the States and Union Territories have been classified by ranges of the average annual exponential growth rates for these decades. The proportion of population of the States and Union Territories in each of these categories to the total population has also been shown. During the period 1991-2001, fifteen States and Union Territories, with a share of about forty two percent of India's population, registered an annual growth rate of less than two percent. During 2001-2011, as many as twenty five States and Union Territories with a share of about eighty five percent fall in this category. Fifteen States and Union Territories have grown by less than 1.5 percent per annum during 2001-2011, while the number of such States and Union Territories was only four during the previous decade.

## Statement 6

### Number of States and Union Territories by range of average annual exponential growth rates: 1991-2001 and 2001-2011


| Average annual exponential growth rate | Number of States/ Union Territories 1991-2001 | Percentage of population to total population | Number of States/ Union Territories 2001-2011 | Percentage of population to total population |
|--|---|--|---|--|
| 1                                      | 2   | 3  | 4   | 5  |
| <1.0                                   | 1   | 3.10   | 5   | 3.08   |
| 1.0-1.4                                | 3   | 13.61  | 10  | 41.52  |
| 1.5-1.9                                | 11  | 25.32  | 10  | 40.35  |
| 2.0-2.4                                | 8   | 39.35  | 8   | 15   |
| 2.5-2.9                                | 7   | 16.97  | 0   | 0  |
| 3.0+                                   | 5   | 1.66   | 2   | 0.05   |

Notes: See notes 3, 4 & 5 below Statement 2



 **Statement 7**
**Decadal growth of population and percentage contribution to total growth of India: 1991-2001 and 2001-2011**

| State/<br>UT<br>Code | India/State/Union Territory # | Decadal growth of population<br>(Absolute) |                     | Percentage contribution<br>to total growth of India |               |
|----------------------|-------------------------------|--|---------------------|---|---------------|
|                      |                               | 1991-2001                                  | 2001-2011           | 1991-2001   | 2001-2011     |
| 1                    | 2                             | 3  | 4                   | 5   | 6             |
|                      | <b>INDIA</b>                  | <b>18,23,16,397</b>                        | <b>18,14,55,986</b> | <b>100.00</b>                                       | <b>100.00</b> |
| 1                    | Jammu & Kashmir               | 23,06,649                                  | 24,05,226           | 1.27  | 1.33          |
| 2                    | Himachal Pradesh              | 9,07,023                                   | 7,78,609            | 0.5   | 0.43          |
| 3                    | Punjab                        | 40,77,030                                  | 33,45,237           | 2.24  | 1.84          |
| 4                    | Chandigarh #                  | 2,58,620                                   | 1,54,051            | 0.14  | 0.08          |
| 5                    | Uttarakhand                   | 14,38,715                                  | 16,27,403           | 0.79  | 0.9           |
| 6                    | Haryana                       | 46,80,916                                  | 42,08,517           | 2.57  | 2.32          |
| 7                    | NCT of Delhi #                | 44,29,863                                  | 29,02,728           | 2.43  | 1.60          |
| 8                    | Rajasthan                     | 1,25,01,198                                | 1,21,13,824         | 6.86  | 6.68          |
| 9                    | Uttar Pradesh                 | 3,41,36,268                                | 3,33,83,556         | 18.72   | 18.40         |
| 10                   | Bihar                         | 1,84,67,955                                | 2,08,06,128         | 10.13   | 11.47         |
| 11                   | Sikkim                        | 1,34,394                                   | 66,837              | 0.07  | 0.04          |
| 12                   | Arunachal Pradesh             | 2,33,410                                   | 2,84,643            | 0.13  | 0.16          |
| 13                   | Nagaland                      | 7,80,490                                   | -9,434              | 0.43  | -0.01         |
| 14                   | Manipur                       | 4,56,747                                   | 4,27,860            | 0.25  | 0.24          |
| 15                   | Mizoram                       | 1,98,817                                   | 2,02,441            | 0.11  | 0.11          |
| 16                   | Tripura                       | 4,41,998                                   | 4,71,829            | 0.24  | 0.26          |
| 17                   | Meghalaya                     | 5,44,044                                   | 6,45,185            | 0.3   | 0.36          |
| 18                   | Assam                         | 42,41,206                                  | 45,13,744           | 2.33  | 2.49          |
| 19                   | West Bengal                   | 1,20,98,232                                | 1,11,71,539         | 6.64  | 6.16          |
| 20                   | Jharkhand                     | 51,01,918                                  | 60,20,409           | 2.8   | 3.32          |
| 21                   | Orissa                        | 51,44,924                                  | 51,42,698           | 2.82  | 2.83          |
| 22                   | Chhattisgarh                  | 32,18,875                                  | 47,06,393           | 1.77  | 2.59          |
| 23                   | Madhya Pradesh                | 1,17,81,781                                | 1,22,49,542         | 6.46  | 6.75          |
| 24                   | Gujarat                       | 93,61,435                                  | 97,12,611           | 5.13  | 5.35          |
| 25                   | Daman & Diu #                 | 56,618                                     | 84,707              | 0.03  | 0.05          |
| 26                   | Dadra & Nagar Haveli #        | 82,013                                     | 1,22,363            | 0.04  | 0.07          |
| 27                   | Maharashtra                   | 1,79,41,440                                | 1,54,94,345         | 9.84  | 8.54          |
| 28                   | Andhra Pradesh                | 97,01,999                                  | 84,55,526           | 5.32  | 4.66          |
| 29                   | Karnataka                     | 78,73,361                                  | 82,80,142           | 4.32  | 4.56          |
| 30                   | Goa                           | 1,77,875                                   | 1,10,055            | 0.10  | 0.06          |
| 31                   | Lakshadweep #                 | 8,943                                      | 3,779               | -   | 0             |
| 32                   | Kerala                        | 27,42,856                                  | 15,46,303           | 1.50  | 0.85          |
| 33                   | Tamil Nadu                    | 65,46,733                                  | 97,33,279           | 3.59  | 5.36          |
| 34                   | Puducherry #                  | 1,66,560                                   | 2,70,119            | 0.09  | 0.15          |
| 35                   | Andaman & Nicobar Islands #   | 75,491                                     | 23,792              | 0.04  | 0.01          |

 Notes: See notes 3, 4 & 5 below Statement 2

Statement 7 presents the absolute increase in population of the States/Union Territories of India during the Census decades 1991-2001 and 2001-2011. The percentage contributions of each of the States and Union Territories to the total growth of India for the decades 1991-2001 and 2001-2011 have also been shown in Statement 7.

Fifteen States and Union Territories have grown by less than 1.5 percent per annum during 2001-2011, while the number of such States and Union Territories was only four during the previous decade.

It took four decades for Kerala to reach a decadal growth of less than ten percent from a high growth rate of 26.29 percent during 1961-71 to 9.43 during 1991-2001. Although Kerala has continued with this impressive show to register a growth rate of just above 4.9 percent during 2001-2011, the decadal growth rates in Bihar, Chhattisgarh, Jharkhand, Rajasthan, Uttar Pradesh and Madhya Pradesh are still above 20 percent, a level where Kerala and Tamil Nadu were forty years ago. However, the International experience is (European Fertility Project) that once the fertility transition had been established in a linguistic or cultural area, it spread rapidly and independently of socio-economic level achieved<sup>16</sup>. Perhaps the policy measures taken in the decade have prepared the basic ground for a similar situation in India and, one may expect a faster rate of fall in growth rates in the remaining States and Union Territories with increase in literacy and child care facilities and a reduction in poverty. The road to a stationary population before 2060 is long and arduous and would require intense efforts<sup>17</sup>.

### THE WAY FORWARD

“Demographic transition” is a model that describes population change over time. There are several expositions of demographic transition theory. The theory mainly describes and analyses the transition from a stable population with high mortality and high fertility to a stable population with low mortality and low fertility. The stages of demographic transition have, however, been differently analysed by different demographers. A commonly accepted theory defines four clear stages of population growth<sup>18</sup>. The four stages are:

Stage 1 : Typically seen in less developed countries where birth rates are high but a large number of people die of preventable causes leading to a stable population.

Stage 2 : Death rates fall steeply as deaths from preventable causes are reduced by better food supply and improved public health, but birth rates remain high due to high fertility, poor social development and limited access to health and contraceptive services. This often leads to a spurt in population.

Stage 3 : Birth rates fall but population continues to grow because there are a large number of people in the reproductive age group due to the high fertility of the previous generations.

Stage 4 : Countries achieve a stable population once again with low birth and low death rates but at a higher level of social and economic development. Population is stable but higher than in stage one.

This transition from a stable population with high mortality and high fertility to a stable population with low mortality and low fertility is called demographic transition. India is currently at the third stage<sup>19</sup>, with some of the States and Union territories already into stage 4.

The National Population Policy (NPP), 2000 adopted by the Government of India states that ‘the long-term objective is to achieve a stable population by 2045, at a level consistent with the requirements of sustainable economic

### Notes

16 Dudley Kirk, Demographic Transition Theory, Population Studies, 50 (1996), pp 379.

17 M. K. Premi, India's Changing Population Profile (2009), pp 204.

### Source

18 Jansankhya Sthirata Kosh (National Population Stabilisation Fund), What is demographic transition, <http://www.jsk.gov.in/faq.asp#b1> accessed on 17th March 2011.

19 *ibid.*

growth, social development, and environment protection.’ The crucial question is when will this objective be achieved? It has been assumed in the policy document that the medium-term objective of bringing down the Total Fertility rate (TFR) to replacement level of 2.1 by 2010 will be achieved. It was envisaged that if the NPP is fully implemented, the population of India should be 1013 million by 2002 and 1107 million by 2010. The time bound objectives set out for the XIth 5-year plan also envisaged achieving a Total Fertility Rate of 2.1 by the year 2012<sup>20</sup>. However, in 2001 itself, India exceeded the estimated population for the year 2002 by about 14 million and, the provisional population in 2011 is higher by about 110 million compared to the target set for the year 2010. It will no doubt be an uphill task on the part of the Government and the people to achieve the much cherished goal of a stable population.

Population variables are both determinants and consequences of the development process. Figure 10 attempts to compare the decadal growth of population, Gross Domestic product at factor cost at constant prices and food grain production over time starting from 1950-51. It helps to understand whether country’s economic development and food grain production has been able to keep pace with its burgeoning population. On the economic front, the GDP at factor cost at constant prices has grown annually by more than 10.2 percent during 2001-10. As a result, the per capita Net National Product has more than doubled during this period, from ₹16,172 in 2000-01<sup>21</sup> to ₹33,731 in 2009-10. During the same period, the food grain production has reached 218.2 million tonnes in 2009-10 from 196.8 million tonnes in 2000-01, showing an annual exponential growth rate of food grain production during 2001-2010 at 1.15 per cent, still a shade lower than the population growth rate during 2001-2011. However, if the targeted improvement in food-grain production of 8.5%, as envisaged in the Union Budget document 2011-12, is actually achieved for the two successive years of 2010-11 and 2011-12, the average annual growth in food-grain production for 2001-12 would touch about 1.5 per cent, making it somewhat similar to the growth in population during this period. However, a comparison among the ten most populous countries of the World, in terms of both the Human Development Index and the per capita GDP in PPP\$<sup>22</sup> shows India has a long way to go.

## Sources

- 20 Planning Commission of India, Eleventh Five Year Plan 2007-12, Volume 2, Social Sector, Paragraph 3.1.48.
- 21 Estimated GDP, NNP and food-grain production are from Economic Survey 2010-11, Statistical appendix 0.1 Select Indicators.

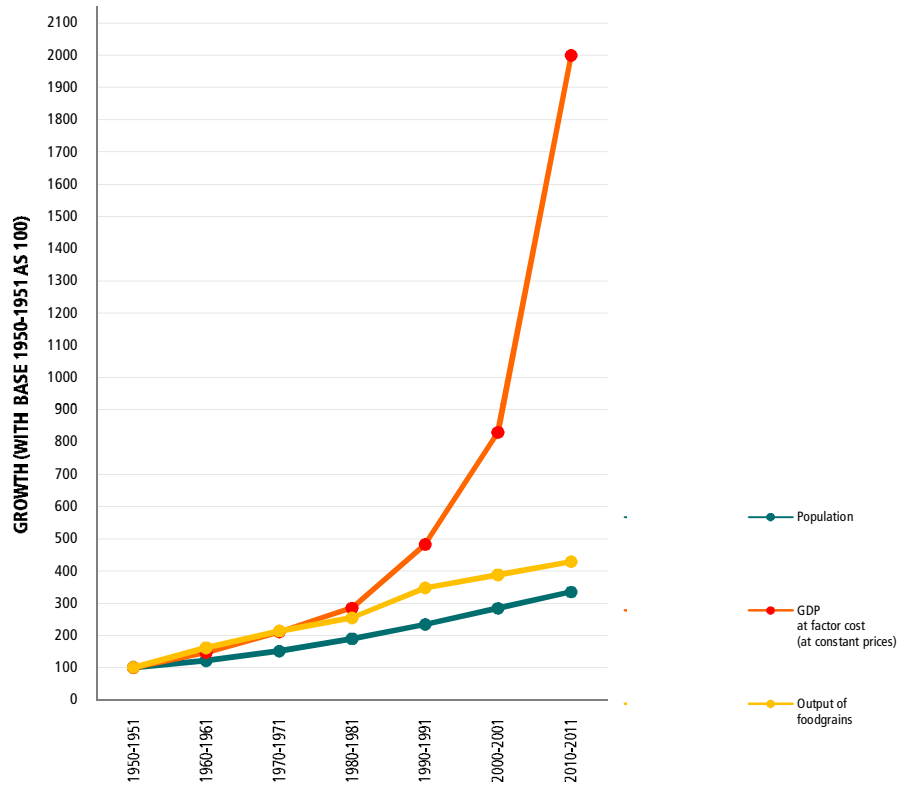
## Notes

- 22 United Nations Development Programme, Human Development Report 2009
- 23 Administrative Report of Census of India 1951
- 24 Quoted by Robert Kunzig, National Geographic, January 2011, Seven Billion special issue
- 25 Dudley Kirk, Demographic Transition Theory, Population Studies, 50(1996), pp 368

The provisional population totals of Census 2011 brings a ray of hope with definite signs that the growth rate of population is tapering off especially in areas where it had been stagnant for several decades. There is also a marked decline in fertility as evidenced by the declining proportion of child population in the age group of 0-6 years. Independent India, urged by the first Census Commissioner Shri R.A. Gopaldaswami, who referred to “improvident maternity”<sup>23</sup> as the primary cause of the population problem became the first country in 1952 to establish a policy for population control. For the world as a whole, demographers are generally confident that by the second half of this century we will be ending one unique era in history – the population explosion – and entering another, in which population will level out or even fall. Population pessimists have warned the congenial optimists, not to believe that humanity will find ways to cope and even improve its lot. Still, Malthus noted: “The exertions that men find it necessary to make, in order to support themselves or families, frequently awaken faculties that might otherwise have lain for ever dormant, and it has been commonly remarked that new and extraordinary situations generally create minds adequate to grapple with the difficulties in which they are involved”<sup>24</sup>. A feature of both mortality and fertility transitions has been their increasingly faster tempo<sup>25</sup>. Targeted programmes like those on female literacy, improving general health care,

improving female employment rates, minimum years of schooling, advocacy through village groups, etc. is slowly redefining motherhood from childbearing to child rearing. Census 2011 is perhaps an indication that the country has reached a point of inflexion.

**Figure 10**  
**Growth of population, GDP and foodgrain production, India: 1950-1951 to 2010-2011**



**Notes**

1. See notes 1 to 6 below Statement 2
2. Source: GDP and Output of foodgrains from Economic Survey, 2010-11. GDP (quick estimate) and foodgrain production (4th advance estimate) correspond to 2009-2010

| Year      | Population (in millions) | GDP at factor cost (at constant prices in ₹ Crore) | Output of foodgrains (million tons) |
|-----------|--------------------------|--|-------------------------------------|
| 1950-1951 | 361                      | 224,786  | 50.8                                |
| 1960-1961 | 439                      | 329,825  | 82.0                                |
| 1970-1971 | 548                      | 474,131  | 108.4                               |
| 1980-1981 | 683                      | 641,921  | 129.6                               |
| 1990-1991 | 846                      | 1,083,572  | 176.4                               |
| 2000-2001 | 1,028.7                  | 1,864,300  | 196.8                               |
| 2010-2011 | 1,210.2                  | 4,493,743  | 218.2                               |

