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Population Growth Rate in India: Some Hopeful Signs**

Introduction

THE population of India, which was 238 million at the beginning of this century, has increased to 844 million by 1991 and is now heading towards a billion. Successive censuses have revealed that the annual growth rate of population was below one per cent (and negative at times) until 1921. From 1921 onwards, the growth rate gradually increased, mainly due to control of epidemics and famines which resulted in a fall in the death rate; the growth rate was slightly above 1 per cent until 1951. Thereafter, thanks to the advances in medical technology and improvement in living conditions, the death rate declined further, and the growth rate increased rapidly. The growth rate has been around 2 per cent per annum since 1951. It touched its peak value of 2.2 during 1961-71 and 1971-81. It has declined to 2.1 during 1981-91 according to the provisional population figures for 1991. Some demographers consider this decline encouraging [see, for example, Premi (1991:4), though slight. Some others think that the decline is negligible and the growth rate continues to be very high; they even proclaim that the family planning programme has failed [see, for example, Bose (1991: 7)]. Thus, it is not clear whether the slight decline that is witnessed in the population growth rate (from 1971-81 to 1981-91) represents a declining trend. This is examined in this paper, using census data on growth rates at State and district levels.

Data and Method

It is quite possible that the growth rates of some States may be increasing while those of others decreasing, resulting in a near stationary growth rate at the all-India level. Therefore, it is necessary to examine the trend of growth rates at the State level. Similarly, for a better understanding of the State level trend, it is desirable to analyse the trend at the district level.

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1 This could happen if some States are in the early stages of demographic transition when growth rates increase and some others in the advanced stages when growth rates decrease. In fact, it appears that some States like Kerala and Tamil Nadu are in an advanced stage of transition, while some others like Bihar and Uttar Pradesh are in an early stage. For a classification of the major States of India into four stages of transition, based on the trend in the population growth rate upto 1981, see Srikantan and Saxena (1981:5-16).

Thus, data on growth rates at State and district levels are needed for the study. They are obtained from the census and other publications [see Registrar General (1991); Bose (1991)].

In all, there are 25 States with a population size (in 1991) ranging from 4 lakhs to 1388 lakhs. Since the objective of the paper is only to assess the trend in the population growth rate of India, it is enough if we study the direction of change that is taking place in the major States in respect of the growth rate. Moreover, most of the smaller States exhibit considerable fluctuation in their growth rates, perhaps due to migration. Therefore, it has been decided to exclude from the study all those States with a population size less than 5 million in 1991, and they are Tripura, Manipur, Meghalaya, Nagaland, Goa, Arunachal Pradesh, Mizoram and Sikkim. For the same reason, the Union Territories have also been excluded from the study. In Assam, Census was not conducted in 1981, and in Jammu and Kashmir, the 1991 Census has not yet been conducted. As the recent growth rates cannot be obtained for these two States, they are not considered for the study. Thus the data analysed are for 15 major States and their districts.

As mentioned earlier, the population growth rate was low prior to 1921, moderate between 1921 and 1951 and high from 1951 onwards. It is only after 1951 that serious efforts are being made to control the growth of population and some States have already succeeded in that direction. As clear trends may be discernible only after 1951, it would be meaningful to carry out State-wise analysis of the growth rates from 1951 onwards.

Findings

Table 1 shows the percentage decadal (intercensal) variation in population for India and major States between 1951 and 1991. Decadal growth rates rather than annual growth rates are considered for the study as the former are readily available for the States as well as the districts. This, however, does not affect the present study, which is essentially a trend analysis.

As noticed from Table 1, the decadal growth rate of India increased from 21.51 per cent in 1951-61 to 24.80 per cent in 1961-71 and maintained the same level in 1971-81. It has declined slightly to 23.50 per cent in 1981-91. Whether it is likely to decline further hereafter is to be examined.

The State-wise growth rates are found to range from 12 to 34.20 to 32.18 to 33 and 14 to 28 respectively for the successive decades from 1951-61. The highest growth rate was recorded by Haryana in the first two decades and by Rajasthan in the next two decades. The lowest growth rate was recorded by Tamil Nadu, Uttar Pradesh, Tamil Nadu and Kerala respectively for the successive decades from 1951-61.

Of the 15 major States, six attained their highest levels of growth rate during 1961-71 and another six did so during 1971-81. Two states, viz., Haryana and West Bengal, recorded their highest growth rates during 1951-61. Andhra Pradesh is the only State where the growth rate has been consistently increasing from 1951-61, but the rate of increase of the growth rate has also been consistently decreasing (from 34% to 11% to 3%).

The direction of change (increase/decrease) of the State-wise growth rates from one decade to the next is shown in Table 2. It is interesting to note that Uttar Pradesh and Bihar, the two most populous states, which together account for more than one-fourth of the total population of India, have shown a decline in their growth rates during 1981-91 for the first time in recent decades. This is an encouraging sign. Similarly, Himachal Pradesh, Karnataka, Punjab and Rajasthan also experienced a decline in their growth rates during 1981-91 for

the first time. It may also be noted that Gujarat, Haryana, Kerala, Orissa and Tamil Nadu have continued their declining trends. Surprisingly, three states, viz., Madhya Pradesh, Maharashtra and West Bengal, recorded an increase (though slight) in their growth rates during 1981-91 after experiencing a decline in the earlier decade. It may be noted, however, that the growth rate for 1981-91 is less than the highest level ever attained in each of these States (see Table 1).

TABLE 1: PERCENTAGE DECADEAL VARIATION IN POPULATION FOR INDIA AND MAJOR STATES¹: 1951-1991

Sl. No.	India/ State	1951-61	1961-71	1971-81	1981-91
India		+ 21.51	+ 24.80	+ 24.66*	+ 23.50
States					
1. Andhra Pradesh		+ 15.65	+ 20.90	+ 23.10	+ 23.82
2. Bihar		+ 19.76	+ 21.33	+ 24.06	+ 23.49
3. Gujarat		+ 26.88	<u>+ 29.39</u>	+ 27.67	+ 20.80
4. Haryana		<u>+ 33.79</u>	+ 32.23	+ 28.75	+ 26.28
5. Himachal Pradesh		+ 17.87	+ 23.04	<u>+ 23.71</u>	+ 19.39
6. Karnataka		+ 21.57	+ 24.22	<u>+ 26.75</u>	+ 20.69
7. Kerala		+ 24.76	+ 26.29	+ 19.24	+ 13.98
8. Madhya Pradesh		+ 24.17	<u>+ 28.67</u>	+ 25.27	+ 26.75
9. Maharashtra		+ 23.60	<u>+ 27.45</u>	+ 24.54	+ 25.36
10. Orissa		+ 19.82	<u>+ 25.05</u>	+ 20.17	+ 19.50
11. Punjab		+ 21.56	+ 21.70	<u>+ 23.89</u>	+ 20.26
12. Rajasthan		+ 26.20	+ 27.83	<u>+ 32.97</u>	+ 28.07
13. Tamil Nadu		+ 11.85	<u>+ 22.30</u>	+ 17.50	+ 14.94
14. Uttar Pradesh		+ 16.66	+ 19.78	<u>+ 25.49</u>	+ 25.16
15. West Bengal		+ 32.80	+ 26.87	<u>+ 23.17</u>	+ 24.55

¹ States with a population size less than 5 million in 1991 are excluded; they are Tripura, Manipur, Meghalaya, Nagaland, Goa, Arunachal Pradesh, Mizoram and Sikkim. Assam, where census was not conducted in 1981, and Jammu & Kashmir, where the 1991 census has not yet been conducted, are also excluded. *In 1981, Census was not conducted in Assam. Based on the 1971 Census population and the 1991 Census provisional results, the population of Assam for 1981 has been interpolated. As a consequence of the revised estimates for Assam for the year 1981, the total population of India as of 1981 has been estimated as 683,329,097 as against earlier published figure of 685,184,692. Hence the revised decadal growth rate for India during 1971-81 has been estimated as 24.66 per cent. *Note:* The figures underlined indicate the highest decadal growth rate attained by the State.

SOURCE: Registrar General and Census Commissioner, India (1991).

Because of migration between States, a particular State may not experience consistent decline in the growth rate. But, when we consider all the states together and analyse, an interesting trend emerges. Table 2 reveals that the growth rate decreased from 1951-61 to 1961-71 in only two States, viz., Haryana and West Bengal. From 1961-71 to 1971-81, there was decline in the growth rate in 8 out of 15 States (53 per cent). Similarly, the growth rate declined from 1971-81 to 1981-91 in 11 States (73 per cent). Thus, it is interesting to find that the number of States experiencing decline in the growth rate from one decade to the next has been consistently increasing. One would expect the trend to continue in the near future, i.e., until the demographic transition is substantially completed. The implication of this is that the growth rate at the all-India level is expected to decline further in the near future.

TABLE 2: DIRECTION OF CHANGE* OF INTERCENSAL GROWTH RATE OF POPULATION FOR MAJOR STATES: 1951-1991

Sl. No..	State	1951-61 to 1961-71	1961-71 to 1971-81	1971-81 to 1981-91
1.	Andhra Pradesh	+	+	+
2.	Bihar	+	+	(-)
3.	Gujarat	+	(-)	(-)
4.	Haryana	(-)	(-)	(-)
5.	Himachal Pradesh	+	+	(-)
6.	Karnataka	+	+	(-)
7.	Kerala	+	(-)	(—)
8.	Madhya Pradesh	+	(-)	+
9.	Maharashtra	+	(-)	+
10.	Orissa	+	(—)	(—)
11.	Punjab	+	+	(—)
12.	Rajasthan	+	+	(-)
13.	Tamil Nadu	+	(-)	(-)
14.	Uttar Pradesh	+	+	(-)
15.	West Bengal	(-)	(-)	+
No. of States showing decline in intercensal growth rate		2(13.3)	8(53.3)	11(73.3)

* Increase is denoted by + and decrease by (-). Note : The figures in brackets give percentages. SOURCE: Table 1.

Similar analysis is carried out at the district level for each of the States, and the number of districts showing decline in the growth rate from one decade to the next is

given in Table 3. It is interesting to find that in most of the States, the number of districts showing decline in the intercensal growth rate has been increasing in recent decades; in these States, the population growth rate is expected to decline in the near future. Surprisingly, there was a reversal of such a trend after 1981 in the case of Madhya Pradesh, Maharashtra, Orissa and West Bengal. But, even in these States, more than three-fourths of the districts had experienced decline in the growth rate by 1981. The change of trend after 1981 (in these States) could be due to migration. Taking all the districts in the 15 major States into account, it is found that the percentage of districts showing decline in the growth rate from one decade to the next (starting from 1951-61) increased consistently from 27.5 to 51.9 and 61.5. One would expect the trend to continue in the near future. As a majority of the districts experienced decline in the growth rate recently, and more and more districts are expected to do so in the near future, the growth rate at the all-India level is expected to decline further.

TABLE 3: NUMBER OF DISTRICTS SHOWING DECLINE IN INTERCENSAL GROWTH RATE OF POPULATION FOR MAJOR STATES: 1951-91

Sl. No.	State	Total No. of districts	Number of districts showing decline in growth rate		
			1951-61 to 1961-71	1961-71 to 1971-81	1971-81 to 1981-91
1.	Andhra Pradesh	23	2 (8.7)	7 (30.4)	12 (52.2)
2.	Bihar	42	16 (38.1)	14 (33.3)	18 (42.9)
3.	Gujarat	19	8 (42.1)	13 (68.4)	17 (89.5)
4.	Haryana	16	8 (50.0)	8 (50.0)	11 (68.8)
5.	Himachal Pradesh	12	3 (25.0)	5 (41.7)	10 (83.3)
6.	Karnataka	20	6 (30.0)	7 (35.0)	16 (80.0)
7.	Kerala	14	6 (42.9)	14 (100.0)	14 (100.0)
8.	Madhya Pradesh	45	8 (17.8)	34 (75.6)	21 (46.7)
9.	Maharashtra	30	8 (26.7)	24 (80.0)	10 (33.3)
10.	Orissa	13	1 (7.7)	12 (92.3)	6 (46.2)
11.	Punjab	12	6 (50.0)	4 (33.3)	11 (91.7)
12.	Rajasthan	27	10 (37.0)	8 (29.6)	22 (81.5)
13.	Tamil Nadu	21	2 (9.5)	18 (85.7)	17 (81.0)
14.	Uttar Pradesh	63	6 (9.5)	12 (19.0)	39 (61.9)
15.	West Bengal	17	13 (76.5)	14 (82.4)	6 (35.3)
	All States	374	103 (27.5)	194 (51.9)	230 (61.5)

Note : The figures in brackets give percentage to the total number of districts.

SOURCE : District-wise data on population growth rates were obtained from Bose (1991).

Concluding Remarks

The foregoing analysis provides convincing evidence in favour of the hypothesis that the population growth rate of India is on a declining trend. The confusion and debate concerning the trend in India's population growth rate are mainly due to the fact that the major States of India are in different stages of demographic transition (with some States experiencing increasing and others declining growth rates), resulting in a near stationary growth rate at the all-India level.

It is clearly seen that the number of States and districts showing a decline in the growth rate has been increasing in recent decades, and one expects the trend to continue until the demographic transition is substantially completed. Secondly, a majority of the States as well as districts have experienced decline in the growth rate recently. Thirdly, some of the backward and most populous States of the country, such as Uttar Pradesh, Bihar, and Rajasthan, have also started experiencing decline in their growth rates after having attained their highest levels. These are hopeful signs for the country, as far as population growth rate is concerned.

References

- Bose, Ashish, 1991, *Demographic Diversity of India—1991 Census*. B.R. Publishing Corporation, Delhi. Premi, Mahendra K., 1991, *India's Population Heading Towards a Billion — An Analysis of 1991 Census Provisional Results*. B.R. Publishing Corporation, Delhi. Registrar General and Census Commissioner, India, 1991, *Census of India 1991, Series • 1 India, Paper -1 of 1991, Provisional Population Totals*. New Delhi.
- Srikantan, K. S. and Saxena, Swati, 1981, 1981 Population census results in perspective. *Journal of Family Welfare* XXVIII (2).