



# NFI BULLETIN

Bulletin of the Nutrition Foundation of India

Volume 22 Number 3

July 2001

## Census Of India 2001– Some Glimpses

Ashish Bose

The recently completed Census of India has been a huge operation covering a population of over a billion. The first results of this Census are now available (Registrar General: Census Paper I of 2001, India). It would be useful to get a glimpse of the demographic situation in India based on the provisional figures from the Census.

Unlike in 1991, when the Census enumeration could not take place in Jammu & Kashmir because of disturbed condition, in 2001 the Census enumeration took place in the entire country, including Jammu & Kashmir. There are 28 states in India (three new states of Jharkhand, Chattisgarh and Uttaranchal were created in 2000) and seven Union Territories. In the last decade several new districts were carved out. At present there are 593 districts, 5,564 talukas, 5,161 towns and cities and 640,000 villages in India.

During the last five decades (the first Census after Independence was conducted in 1951, namely, 1951-2001) the population of India increased almost three times from 361 million to 1,027 million. Though the decadal growth rate has come down from 23.9 per cent during 1981-91 to 21.34 per cent during 1991-2001, in absolute terms the net addition to the population during the last decade was of the order of about 181 million, the highest ever increase during the last five decades. Though China's population as of now is more than India's, we are adding more people to our population every year than China does.

In a country of India's size and incredible diversity, all-India figures tend to be misleading. Even the state figures (particularly in large states like Uttar Pradesh) tend to be misleading. We may consider the district to be the most meaningful unit of observation. Census Paper 1 of 2001 gives data for states but not for districts, while Census papers of each individual state/UT give district-wise data. The complete set of Census papers for the 35 states and UTs are not yet available. Our comments, therefore, will be confined to state-wise data only.

From the point of view of population stabilisation, which is our goal, we consider the absolute size of population as the most important variable. We have, therefore, processed the Census data and presented the table for three categories of states, namely, mega states, bigger states/UTs and smaller states/UTs. There are nine mega states with populations over 50 million, comprising over 5 per cent of India's population; Uttar Pradesh, Maharashtra, Bihar, West Bengal, Andhra Pradesh, Tamil Nadu, Madhya Pradesh, Rajasthan, and Karnataka. In next category there are nine states and Delhi NCT, each state with a population of over 10 million, comprising 1 per cent or more of India's population which are Gujarat, Orissa, Kerala, Jharkhand, Assam, Punjab, Haryana, Chattisgarh, Delhi NCT and Jammu & Kashmir. Finally there are the 16 smaller states and UTs with less than 10 million people, comprising less than 1 per cent of India's population. These

are: Uttaranchal, Himachal Pradesh, Tripura, Manipur, Nagaland, Meghalaya, Goa, Pondicherry UT, Chandigarh UT, Mizoram, Arunachal Pradesh, Sikkim, Andaman & Nicobar Islands, Dadra & Nagar Haveli UT, Daman & Diu UT, and Lakshwadeep UT.

**Literacy rate:** Among the encouraging aspects of the 2001 Census results is the literacy rate, which has registered a fairly sharp increase both for males and females during the last decade. The female literacy rate was 39.3 per cent in 1991; it increased to 54.2 per cent in 2001. The literacy rate for males increased from 64.1 per cent in 1991 to 75.9 per cent in 2001. The overall literacy rate increased from 55.2 per cent to 65.4 per cent during the last decade. For the first time in the history of India, the majority of males and females are literate. The gap between the male and female literacy is narrowing down. These are encouraging features.

**Decadal growth rate:** Next we turn to the decadal growth rate of the population. Let us first consider the backward states of Bihar, Madhya Pradesh, Rajasthan and Uttar Pradesh which that have been termed BIMARU

### CONTENTS

● Census of India 2001– Some Glimpses – Ashish Bose	1
● Foundation News	4
● Nutrition News	4
● Genetically Modified Foods – Potential Benefits And Possible Hazards – Kamala Krishnaswamy and S. Vasanthi	5

(sick). In Bihar the decadal growth rate increased from 23.4 per cent during 1981-91 to 28.4 per cent during 1991-2001. In Madhya Pradesh, on the other hand, the decadal growth rate declined from 27.4 per cent to 23.4 per cent; in Rajasthan the growth rate was the same: 28.4 and 28.3 per cent respectively; in Uttar Pradesh the growth rate increased marginally from 25.6 to 25.8 per cent.

On the other hand, growth rates of the southern states are in sharp contrast with those of the BIMARU states. The sharpest decline in the growth rate has been registered in Andhra Pradesh, where the decadal growth rate has declined from 24.2 to 13.9 per cent; in Karnataka the comparable figures are 21.1 and 17.3 per cent; in Kerala 14.3 and 9.4 per cent and in Tamil Nadu 15.4 and 11.2 per cent. In fact, Kerala and Tamil Nadu are below replacement level of fertility while Andhra Pradesh and Karnataka are catching up. Among other states, which registered a slow growth rate of population (below 20 per cent during 1991-2001), the following must be mentioned: Goa (14.9 per cent), Tripura (15.7 per cent), Orissa (15.9 per cent), Lakshwadeep UT (17.2 per cent), Himachal Pradesh (17.5 per cent), West Bengal (17.8 per cent), Chattisgarh (18.1 per cent) and Uttaranchal (19.2 per cent). Ofcourse, the growth rates are affected not only by birth and death rates but also the net migration rate (2001 Census data on migration are not yet available).

The exponential annual growth rate and the latest SRS data on vital statistics of all 35 states and UTs show that in Nagaland, Bihar, Sikkim, Gujarat, Manipur, Haryana and Uttar Pradesh, the growth rate has increased during the last decade while in all other states and UTs the growth rate has declined.

**Sex ratio (females per thousand males):** In India as a whole the sex ratio has increased from 927 in 1991 to 933 in 2001. This is a welcome feature of 2001 Census results. The data, however, have to be interpreted with caution: migration, in particular, male migration outside the state tends to increase the sex ratio. The general trend is an increase in the sex ratio. However, the distressing feature is that in the states of Maharashtra, Gujarat, Haryana, Delhi NCT, Himachal Pradesh, Goa and Sikkim, the sex ratio has decreased during the last decade.

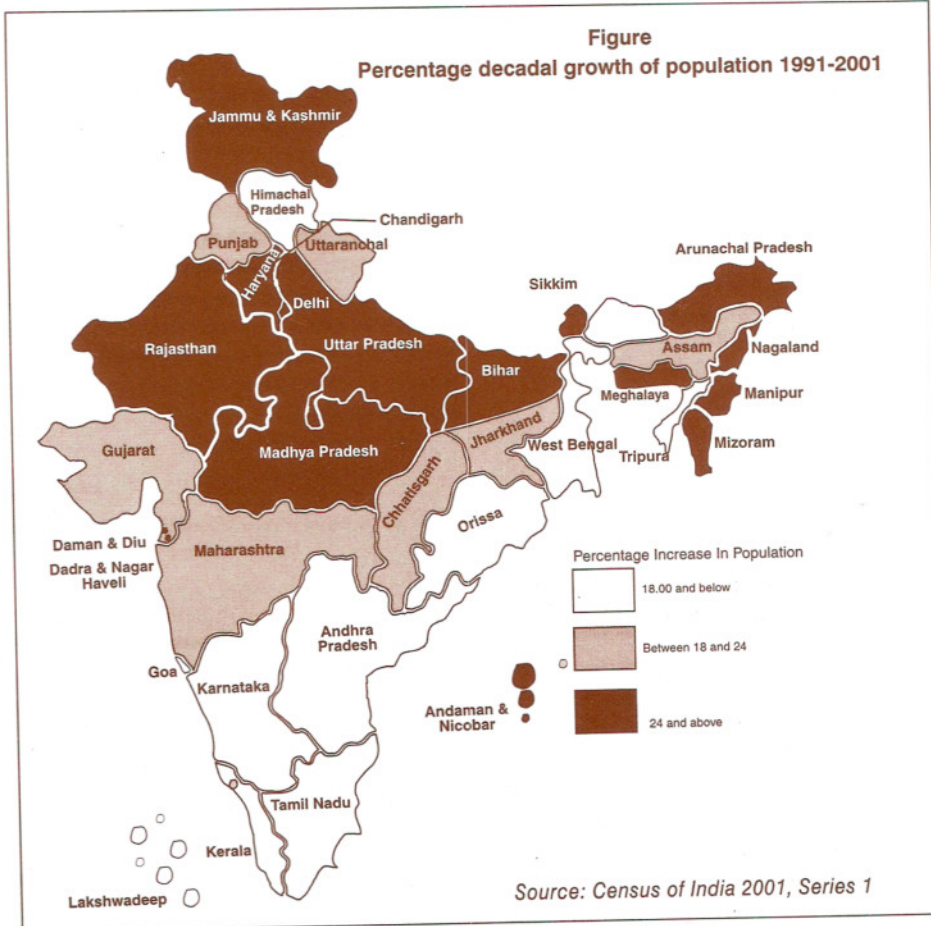
The age distribution of the population is not yet available. However, for the purpose of calculating the literacy rate, the age group 0-6 is excluded and the 7+ population is considered. In India as a whole, 15.4 per cent of the total population in the age group 0-6 years. In most states and UTs, the female proportion in the age group 0-6 years is less than that of the male population. With the success of the family planning programme, fewer children are born resulting in a lower proportion of children but why should the female child proportion decline at a faster rate than the male proportion? This phenomenon is further corroborated by the child sex ratio (0-6 years). The table gives the sex ratio of the child population (0-6 years) and compares it with the sex ratio with the 7+ population. The overall sex ratio for the child population is 927. It was 945 in 1991. This is perhaps the most disturbing finding of Census 2001, namely, a sharp decline in the child sex ratio compared to an increase in the overall sex ratio. This needs a detailed investigation. It will be noticed that the following states have an abnormally low child sex ratio: Punjab (793), Haryana (820), Chandigarh UT (845), Delhi NCT (865), Himachal

Pradesh (897), Gujarat (878). It seems to us that without widespread female foeticide and even infanticide, the sex ratio cannot go down so sharply in the age group 0-6 years where migration is not a major factor. It is high time the Government of India recognises that the law against the misuse of prenatal diagnostic techniques has been totally ineffective and other measures are called for.

While the overall literacy rate for females in India is 54.2 per cent, the following states have a female literacy rate of less than 50 per cent: Bihar (33.6 per cent), Jharkhand (39.4 per cent), Jammu & Kashmir (41.8 per cent), Dadra and Nagar Haveli UT (43.0 per cent), Uttar Pradesh (43.0 per cent), Arunachal Pradesh (44.2 per cent) and Rajasthan (44.3 per cent). Madhya Pradesh is a marginal case with the female literacy rate of 50.3 per cent.

## CONCLUSION

On the basis of this rather sketchy analysis of the first provisional results of the 2001 Census, we conclude that the prospects of population stabilisation will remain bleak unless there is a



**Table: Sex Ratio, Literacy Rate and Growth Rate of Different States**

**A. Mega States (9) (population: over 50 million )**

Rank	State	Sex Ratio (females per 1,000 males),		Literacy Rate by Sex, 2001		Percentage Decadal Growth Rate	
		0-6 age group	7+ age group	Males	Females	1981-1991	1991-2001
1	Uttar Pradesh	916	895	70.2	43.0	25.6	25.8
2	Maharashtra	917	923	86.3	67.5	25.7	22.6
3	Bihar	938	916	60.3	33.6	23.4	28.4
4	West Bengal	963	929	77.6	60.2	24.7	17.8
5	Andhra Pradesh	964	980	70.9	51.2	24.2	13.9
6	Tamil Nadu	939	992	82.3	64.6	15.4	11.2
7	Madhya Pradesh	929	918	76.8	50.3	27.2	24.3
8	Rajasthan	909	925	76.5	44.3	28.4	28.3
9	Karnataka	949	966	76.3	57.5	21.1	17.3

**B. Bigger States/UTs (10) (population: over 10 million )**

Rank	State	Sex Ratio (females per 1,000 males),		Literacy Rate by Sex, 2001		Percentage Decadal Growth Rate	
		0-6 age group	7+ age group	Males	Females	1981-1991	1991-2001
1	Gujarat	878	927	80.5	58.6	21.2	22.5
2	Orissa	950	976	76.0	51.0	20.1	15.9
3	Kerala	963	1071	94.2	87.9	14.3	9.4
4	Jharkhand	966	936	67.9	39.4	24.0	23.2
5	Assam	964	926	71.9	56.0	24.2	18.9
6	Punjab	793	886	75.6	63.6	20.8	19.8
7	Haryana	820	869	79.3	56.3	27.4	28.1
8	Chhatisgarh	975	992	77.9	52.4	25.7	18.1
9	Delhi NCT	865	813	87.4	75.0	51.5	46.3
10	Jammu & Kashmir	937	894	65.8	41.8	30.3	29.0

**C. Smaller States/UTs (16) (population: less than 10 million)**

Rank	State	Sex Ratio (females per 1,000 males),		Literacy Rate by Sex, 2001		Percentage Decadal Growth Rate	
		0-6 age group	7+ age group	Males	Females	1981-1991	1991-2001
1	Uttaranchal	906	976	84.0	60.3	24.2	19.2
2	Himachal Pradesh	897	981	86.0	68.1	20.8	17.5
3	Tripura	975	947	81.5	65.4	34.3	15.7
4	Manipur	961	981	77.9	59.7	29.3	30.0
5	Meghalaya	975	974	66.1	60.4	32.9	29.9
6	Nagaland	975	899	71.8	61.6	56.1	64.4
7	Goa	933	964	88.9	75.5	16.1	14.9
8	Pondicherry UT	958	1007	88.9	74.1	33.6	20.6
9	Chandigarh UT	845	763	85.7	76.7	42.2	40.3
10	Mizoram	971	932	90.7	86.1	39.7	29.2
11	Arunachal Pradesh	961	888	64.1	44.2	36.8	26.2
12	Sikkim	986	858	76.7	61.5	28.5	33.0
13	Andaman & Nicobar Islands	965	830	86.1	75.3	48.7	26.9
14	Dadra & Nagar Haveli UT	973	779	73.3	43.0	33.6	59.2
15	Daman & Diu UT	925	682	88.4	70.4	28.6	55.6
16	Lakshadweep UT	974	943	93.2	81.6	28.5	17.
	INDIA	927	935	75.9	54.2	23.9	21.3

radical improvement in the BIMARU (sick)/backward states. These states have a disproportionate share of India's illiterate population and also contribute to the absolute increase in India's population. If in the name of parliamentary democracy, these states get an increasing share of the seats in Parliament, India will be politically unstable and the 'North-South' demographic divide will have disastrous political, economic and social consequences. India has to succeed in attaining its goal of population stabilisation, the focus should be squarely on the four BIMARU states and the three recent offshoots thereof.

*The author is a leading demographer and Honorary Professor at the Institute of Economic Growth*

### References

Bose, A.: Towards population stabilisation. *NFI Bulletin*, Vol 21(4): 1-4, 2000.

*India's Billion Plus People - 2001 Census Highlights, Methodology and Media Coverage*, Bose, A., B.R. Publishing Corporation, Delhi (2001).

Registrar General India (2001), *Census of India - 2001, Series 1*, Provisional Population Totals, Paper 1 of 2001.

Premi, M. K.: The missing girl child, *Economic and Political Weekly*, May 26-June 1, vol. XXXVI No 21: 1875-1880, 2001.

### COMMENT

In the paper above, Prof Ashish Bose has drawn attention to some important preliminary findings of the recent Indian Census. Data on several new items, not covered in the previous Census operations, have been collected in the recent Census. The final report should, therefore, prove highly informative.

In a vast country like India, with wide regional variations in development, "average figures" including all states do not have much meaning and hardly provide useful practical leads for action. Disaggregated data pertaining to individual states, on the other hand, will help to pinpoint the "success" and "failure" stories and enable policy-makers to identify appropriate strategies for corrections of "backwardness" where it exists. It is in this context that Prof Bose's presentation of state-wise data is helpful.

Kerala is by no means better endowed with natural resources, or better off economically than some of the "backward" states of north-central

India – which Prof Bose colourfully describes as BIMARU (sick) states. If our planners succeed in moving the BIMARU states to the Kerala end of the developmental spectrum within the next decade, it will indeed be a significant achievement. The data presented here would suggest that what "backward" states of north-central India apparently need is not so much economic upliftment as a socio-cultural revolution!

C. G.

## FOUNDATION NEWS

### Study Circle Meetings

● Dr Kumud Khanna, Director, Institute of Home Economics, New Delhi, on "Fast Foods and Junk Foods" on April 19.

● Dr Sarath Gopalan, Consultant in Clinical Nutrition and Paediatric Gastroenterology, Pushpawati Singhania Research Institute, and Executive Director, CRNSS, New Delhi, on "Nutrition in Critically-ill Patients" on May 30.

● Dr Pulkit Mathur, Lady Irwin College, on "Food Adulterants" on June 19.

### New Projects

The Foundation has undertaken two new projects, which are being supported by the Ministry of Health and Family Welfare, Government of India.

● Investigation of the Efficacy of n-3 Fatty Acids in Combating Low Birth Weight and Intra-uterine Growth Retardation.

● Interstate and Intrastate Differences in the Prevalence of Anaemia in Reproductive Age Women – A Study of Possible Contributing Factors.

### Task Force Meeting

● A Task Force Meeting to discuss the project "Investigation of the Efficacy of n-3 Fatty Acids in Combating Low Birth Weight and Intra-uterine Growth Retardation" was held on April 27.

### President's Engagements

● Gave the keynote address at the

"National Workshop on Alleviating Micronutrient Deficiency: Role of Horticulture and Home Gardens", held at the M. S. Swaminathan Research Foundation on June 29.

Readers will kindly note that the official web site for the NFI has now been changed to <http://www.nutritionfoundationofindia.org/>

## NUTRITION NEWS

● **IX Asian Congress:** The preparations for the IX Asian Congress are ongoing. The Congress will be held at the Convention Centre, Hotel Ashoka, New Delhi from February 23-27, 2003. The theme of the Congress is **Nutrition Goals for Asia – Vision 2020**. The First Circular indicating the objectives of the Congress and composition of different committees is being circulated. The web site for the IX Asian Congress is <http://www.acn2003india.net>

● **XXXIV Annual Conference of the NSI:** The Conference is to be held on December 5 and 6, 2001, at the Madhya Pradesh Academy of Administration, Shahpura, Arera Colony, Bhopal. The *Twenty-fifth Gopalan Oration* will be delivered by Dr B.S. Narasinga Rao, President of Nutrition Society of India. The *Thirteenth Srikantia Memorial Lecture* will be delivered by Dr Prema Ramachandran, Adviser (Health), Planning Commission, Government of India. *Two Symposia* – one on "Nutrition and Chronic Disease" and the other on "Women's Role in Improving the Nutritional Status of the Community" are being organised. Apart from these, there will be Free Communication/Poster and Young Scientists' Awards Sessions

● **Indian Society for Parenteral and Enteral Nutrition (ISPEN):** The Secretariat for ISPEN is now located at the Centre for Research on Nutrition Support Systems (CRNSS), Nutrition Foundation of India building, C-13, Qutab Institutional Area, New Delhi 110 016, with effect from January 1, 2001. Dr Sarath Gopalan (Executive Director, CRNSS) is currently the Secretary of ISPEN, having taken charge on January 1, 2001.