

Demographic transition and demographic imbalance in India



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Abstract

In the coming decades, there will be growing demographic disparity in India and, like economic disparity, this should be a matter of serious concern for our planners and policy-makers. This demographic disparity leading to demographic imbalance may cause considerable social turbulence and may even pose a threat to political stability. Demographers must look far beyond demographic statistics and anticipate the consequences of demographic imbalance between different regions and states in India as well as between different religious communities, castes and tribes. Relevant data based on 1991 Census and National Family Health Survey (1992-93) are presented to highlight the 'North-South Demographic Divide'.

The world population problem is zeroing in on South Asia and in particular, India, Pakistan and Bangladesh. India has a special responsibility in this regard because it is the second most populous country in the world, and is threatening to be the most populous country by the year 2035 or so. India owes to the world a speedy resolution of the population problem by rapidly curbing the birth and death rates as also the infant mortality rate. The crux of India's population problem lies in the states of Bihar, Madhya Pradesh, Rajasthan and Uttar Pradesh, with a total population of 335 million in 1991, accounting for 40 per cent of India's population. Our acronym for these states is BIMARU (in Hindi *bimaru* means sick). In international literature, the Kerala model of demographic transition has received considerable attention. The same is not true of Tamil Nadu which is a much larger state than Kerala, in both area and population. The factors which have contributed to the significant reduction in the birth rate in Tamil Nadu are different from those operating in Kerala. Leaving aside the tiny State of Goa, which has the lowest birth rate in India, Kerala and Tamil Nadu are success stories in the field of population control. As a matter of fact, all the southern states, Kerala, Tamil Nadu, Andhra Pradesh and Karnataka are doing well in family planning, whereas the four large states in the North, Uttar Pradesh, Bihar, Madhya Pradesh and Rajasthan, are lagging far behind. As a result, a peculiar situation has arisen in India in terms of what we call 'North-South Demographic Divide'. It is rather unfortunate that India which claims to be the first country in the world to have formulated a State-sponsored population control policy is lagging far behind other Asian countries like China, Japan, South Korea, Taiwan, Singapore, Hong Kong, Thailand and even Muslim Indonesia. Jawaharlal Nehru, the first Prime Minister of India and the first Chairman of the Planning Commission, knew the feelings of the people and he very rightly put family planning under the rubric of health, with the focus on the health of the mother and child. In Nehru's concept, health included family planning. It is most unfortunate that under the influence of misguided foreign donor agencies, there was a paradigm shift in this policy from 1966 onwards and a new Department of Family Planning was carved out of the Ministry of Health with an elaborate system of 'targets', compensation money and incentives. A large number of foreign experts were involved who

relied heavily on contraceptive technology. Even though the money put in by these foreign donor agencies was not considerable, their effect on ideas was far-reaching. The family planning program in the 1960s was heavily dominated by foreign ideas and foreign experts. The system of targets led to widespread falsification of data at the grassroots level and the system of paying monetary incentives to guest doctors, motivators and clients led to commercialization of the program which in turn led to widespread corruption. To make matters worse, the entry of an extra-constitutional authority (Sanjay Gandhi) during the Emergency led to a perverse family planning program, based on undue governmental pressure and coercion. The Indian masses hit back during the general elections in 1977 and the Government of Indira Gandhi was thrown out of power. In the largest State of Uttar Pradesh, with 85 seats in Parliament, the ruling party (Congress I) could not get a single seat, such was the fury of the masses. Great damage was done to the family planning program by foreign ideas and the pressure tactics of Sanjay Gandhi. One may take the charitable view that the foreign experts as well as Sanjay Gandhi wanted to solve India's population problem speedily. Unfortunately, their ignorance of social reality was appalling.

The Registrar General's latest estimates (1993) of birth and death rates confirm our diagnosis of India's population problem in terms of the North-South Divide (see Table 1).

Table 1
Birth and death rates, 1993 (per thousand)

	Birth Rate	Death Rate	Natural Growth Rate	Infant Mortality Rate
INDIA	28.7	9.3	19.4	74
Kerala	17.4	6.0	11.4	13
Tamil Nadu	19.5	8.2	11.3	56
Andhra Pradesh	24.3	8.6	15.7	64
Karnataka	25.5	8	17.5	67
Bihar	32.0	10.6	21.4	70
Rajasthan	34.0	9.1	24.9	82
Madhya Pradesh	34.9	12.6	22.3	106
Uttar Pradesh	36.2	11.6	24.6	94

Source: Registrar General, India 1995.

It will be seen that the natural growth rate of population is lowest in Tamil Nadu (1.13 per cent) though the birth rate is lowest in Kerala (17.4 per thousand). The growth rate is highest in Rajasthan (2.49 per cent) though the birth rate is highest in Uttar Pradesh (39.2 per thousand). The death rate is lowest in Kerala (6 per thousand) and highest in Madhya Pradesh (12.6 per thousand). So also the infant mortality rate; it is as low as 13 per thousand live births in Kerala and as high as 106 in Madhya Pradesh; the highest infant mortality rate is in Orissa, 110 per thousand; 115 in rural Orissa. The tiny state of Goa has the lowest birth rate in India, 14.7 per thousand, and its death rate is 6.7 per thousand; thus the natural growth rate is only 0.8 per cent, much below the replacement level of population. The Union Territory of Chandigarh has the lowest death rate, 2.7 per thousand. Among the states, the death rate in Nagaland is only 4.7 per thousand followed by Manipur where it is 4.8. Underenumeration in these remote states and also sampling error may have contributed to the low death rate. Nevertheless, it is also necessary to study the food habits, physical environment and socio-cultural factors which contribute to the low death rate in these small states. The three-year moving average for infant mortality rate for Nagaland is only 7 per thousand for the period 1991-93, as estimated by the Registrar General. The comparable figure for Uttar Pradesh is 73 per thousand.

The National Family Health Survey (1992-93) initiated by the Ministry of Health and Family Welfare and funded by USAID collected useful demographic data through a large-scale sample survey. The results confirm our analysis of India's population problem (see Table 2).

Table 2
Demographic indicators (NFHS, 1992-93)

	% of illiterate females (age 6+)	% of girls, attending school (age 6-14)	Birth Rate (per 1000)	Total fertility (per woman)	% of women using contraception
INDIA	56.7	58.9	28.7	3.39	40.6
Bihar	71.4	38.3	32.1	4.0	23.1
Madhya Pradesh	65.7	54.8	31.6	3.9	36.5
Rajasthan	74.6	40.6	27	3.63	31.8
Uttar Pradesh	68.5	48.2	35.9	4.82	19.8
Kerala	17.6	94.8	19.6	2.0	63.3
Tamil Nadu	43.9	78.7	23.5	2.48	49.8
Andhra Pradesh	61.5	54.8	24.2	2.59	47.0
Karnataka	53.5	64.4	25.9	2.85	49.1

Source: IIPS 1995.

It will be observed that in the BIMARU states, the total fertility rate (TFR) ranges from 3.6 to 4.8 while in the southern states, it ranges from 2.0 to 2.9. The lowest practice of contraception is in Uttar Pradesh (19.8 per cent) apart from the small state of Nagaland where it is only 13 per cent; the highest is in Kerala (63.3 per cent).

The illiteracy rate among females is the lowest in Kerala (17.6 per cent) and the highest in Rajasthan (74.6 per cent). The southern state of Andhra Pradesh does not fare well when one considers the percentage of girls in the age group 6-14 years going to school. While the lowest figure is for Bihar (38.3 per cent), both in Madhya Pradesh and Andhra Pradesh, only 54.8 per cent of the girls go to school, compared to 94.8 per cent in Kerala. In this sense, Andhra Pradesh is a 'BIMARU' state in the South (to use our acronym for a 'sick' state). Interestingly, the TFR in Andhra Pradesh is low (2.6) compared to Madhya Pradesh (3.9). Of late, Andhra Pradesh has attracted the attention of demographers used to the Kerala and Tamil Nadu models. What explains the low fertility pattern of this state which is weak in terms of literacy and education? Is it the impact of films and the large number of cinema halls in this state? NFHS did not collect data on exposure to cinema but the state reports do contain data on percentage of married women who have heard a family planning message on the radio or television and also the percentage of 'both husband and wife' who approve family planning.

Table 3 underlines the complexity of demographic analysis:

Table 3
Exposure to family planning messages

	Heard FP message on radio/TV	Both husband and wife approve of FP
INDIA	42.2	58.4

Andhra Pradesh	58.4	77.1
Tamil Nadu	51.9	63.7
Karnataka	66.8	63.2
Kerala	55.9	62.6
Bihar	26.6	46.0
Madhya Pradesh	34.3	50.3
Rajasthan	33.3	59.1
Uttar Pradesh	32.7	42.3

Source: IIPS 1995:178

According to NFHS data, the percentage of both husband and wife approving family planning is the highest in Andhra Pradesh (higher than in Kerala and Tamil Nadu). This certainly must have contributed to the comparatively low birth rate of Andhra Pradesh. Nevertheless, it is necessary to explain why the couples in Andhra Pradesh are so highly motivated to practise family planning, also why in Haryana, where 79.4 per cent of husbands and wives approve of family planning, the birth rate is as high as 32.9 and the total fertility rate 3.99, almost the same as in Bihar.

Apart from qualitative differences in collection of NFHS data, socio-cultural factors affecting reproductive behaviour need to be examined. The small family norm has crystallized in Kerala and Tamil Nadu and possibly in Andhra Pradesh also but this is not so in the North where there is a marked 'son-preference' or what we call 'demographic fundamentalism', reflected in the cut-off point of two living sons before family planning is begun.

In the coming decades, there will be growing demographic disparity in India and like economic disparity, this should be a matter of serious concern for our planners and policy-makers. This demographic disparity leading to demographic imbalance may cause considerable social turbulence and may even pose a threat to political stability. Demographers must look far beyond demographic statistics and anticipate the consequences of such demographic imbalance between different regions and states in India as well as between different religious communities, castes and tribes.

A politically explosive situation may arise out of the differential growth rate of population belonging to different religious communities and caste groups. Table 4 gives the growth rates of population by different religions communities for the decade 1981-91:

Table 4
Decadal growth rate of different religious communities 1981-91

Religious community	Percentage decadal growth rate, 1981-91 ^a	Percentage of total population ^b
Buddhists	36.0	0.76
Muslims	32.8	12.12
Sikhs	25.5	1.94
Hindus	22.8	82
Christians	16.9	2.34
Jains	4.4	0.4

^a Excluding Jammu & Kashmir where the 1991 census was not held and Assam where the 1981 census was not held.

^b Excluding Jammu & Kashmir Source: Census of 1991, Paper 1 of 1995: Religion.

Interestingly the growth rate of Buddhists is the highest, because of the conversion of lower-caste Hindus to Buddhism as a protest against social inequity. The high growth rate of Muslims must be partly attributed to high fertility and partly to migration from Bangladesh and Pakistan, legal as well as illegal. The Christians have a comparatively low growth rate because of their low fertility. I am, however, not making a statistical point here but indicating the implications of different growth rates for the political environment.

With the growth of fundamentalism all over the world and also in India, religion is bound to be invoked in election campaigns and the agenda of political parties. The different growth rates of population of Hindus and Muslims is bound to have political repercussions: a demographic issue may be converted into a political issue. The ramifications of this problem must be understood. To a large extent, the high growth rate of Muslims is a reflection of their poverty and illiteracy. The growth rate of the Scheduled Castes population, which is poor, is also high. The population of Scheduled Castes in India (excluding Assam and Jammu and Kashmir) during 1981-91 was 31 per cent which is comparable to the figure for Muslims: 32.8 per cent. The Scheduled Tribes also belong to the poorer sections of the population. In their case, however, the growth rate during 1981-91 was 25.7 per cent which is much lower than that of the Scheduled Caste population. Obviously, apart from poverty, there are social and cultural factors which affect the fertility and mortality pattern and the growth rate.

Table 5 gives the decadal growth rate of the Scheduled Caste (SC), Scheduled Tribe (ST) and non-SC/ST population during 1981-91.

Table 5
Decadal growth rate of population by communities in India ^a

	1981-91 (per cent)
Total population	23.8
Scheduled Caste population	31.0
Scheduled Tribe population	25.7
Non-SC/ST population	22.1

^a Excluding Assam and Jammu & Kashmir Source: Census of India, 1991

It will be seen that both the Scheduled Castes and Scheduled Tribes populations have grown faster than the non-SC/ST population. These figures must be interpreted in the context of the growing demand for reservation of jobs for SCs, STs, Muslims and other backward communities (OBCs). The Constitution of India does safeguard the position of SCs and STs. There is, however, a growing demand to raise the proportion of jobs reserved for SCs and STs. Several years back, the Mandal Commission Report on this subject sparked off violent agitations and led to political instability. It is worth recalling that in the most populous states of UP and Bihar, the Chief Ministers belong to the weaker sections of the community. This ushers in a new era of the growing power of political leadership representing the weaker sections. Since employment opportunities are inadequate, the clamour for jobs has an element of conflict and violence; religion and caste are invoked to obtain jobs, often without any consideration for merit. The same is true of the students' admission policy in institutions of higher learning, particularly in medical and engineering colleges. This is another conflict point. Throughout the country, if the masses are asked what is India's number one problem, the answer is invariably 'Creating more jobs'. It is somewhat unfortunate that the family

planning program, ever since 1951, has failed to relate population growth to the growth of the labour force. A high rate of population growth for the last three decades has converted the population problem into a major unemployment problem. The voting age has been reduced to 18 years, and every person aged 18+, whether employed or not, is a voter. The mere size of population gives people a tremendous political leverage and the unemployed masses see their salvation in getting jobs in the government or organized sector.

In 1976, during the Emergency period, a National Population Policy was formulated by the government. This policy stated that for the purpose of deciding the number of seats in Parliament and State Assemblies, the 1971 Census population would decide the position of each state and this would remain so till the year 2001. In other words, the state of Uttar Pradesh will not have more members in Parliament because its population growth rate was higher than that of Tamil Nadu. Now there is every possibility that the whole issue will be reopened in 2001. The Expert Group on Population Policy headed by Dr. M.S. Swaminathan recommended in its 1994 report that this freeze should continue right up to the year 2011.

A crucial factor which affects family planning is literacy and in particular, female literacy; here disparities between North and South are very considerable. Within each state also there is much disparity between the literacy rate of the SC and ST population and the overall literacy rate. The disparity between the literacy rates of males and females is equally striking (see Tables 3 and 4).

Table 6
Literacy rate India, 1991 (per cent) (7+ population)

	Males	Females	Persons
INDIA ^a			
Total population	64.1	39.3	52.2
Scheduled Castes	49.9	23.8	37.4
Scheduled Tribes	40.7	18.2	29.6

^a Excluding Jammu & Kashmir

Source: Census of India, 1991

Table 7
Literacy rates, 1991 (per cent)

North	Males	Females	Persons
Uttar Pradesh			
Total population	55.7	25.3	41.6
Scheduled Castes	40.8	10.7	26.9
Scheduled Tribes	50.0	19.9	35.7
Bihar			
Total population	52.5	22.9	38.5
Scheduled Castes	30.6	7.1	19.5
Scheduled Tribes	38.4	14.8	26.8
Madhya Pradesh			
Total population	58.4	28.9	44.2
Scheduled Castes	50.5	18.1	35.1
Scheduled Tribes	32.2	10.7	21.5
Rajasthan			
Total population	55.0	20.4	38.6
Scheduled Castes	42.4	8.3	26.3
Scheduled Tribes	33.3	4.4	19.4
South			
Andhra Pradesh			
Total population	55.1	32.7	44.1
Scheduled Castes	41.9	20.9	31.6
Scheduled Tribes	25.3	8.7	17.2
Karnataka			
Total population	67.3	44.3	56.0
Scheduled Castes	49.7	26.0	38.1
Scheduled Tribes	48.0	23.6	36.0
Tamil Nadu			
Total population	73.8	51.3	62.7
Scheduled Castes	58.4	34.9	46.7
Scheduled Tribes	35.3	20.2	27.9
Kerala			
Total population	93.6	86.1	89.8
Scheduled Castes	85.2	74.3	79.7
Scheduled Tribes	63.4	51.1	57.2

Source: Census of India 1991

With regard to the practice of family planning, the findings of the National Family Health Survey conducted in 1992-93 are summarized in Table 8.

Table 8
TFR and Practice of FP, 1992-93

TFR (15-49)	Percentage of currently married women using contraception (any method)
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	Total	Rural	Urban	Total	Rural	Urban
North						
Uttar Pradesh	4.8	5.2	3.6	19.8	16.7	32.0
Bihar	4.0	4.2	3.3	23.1	19.8	42.5
Madhya Pradesh	3.9	4.1	3.3	36.5	33.4	47.7
Rajasthan	3.6	3.9	2.8	31.8	28.2	47.1
South						
Tamil Nadu	2.5	2.5	2.4	49.8	49.2	50.9
Andhra Pradesh	2.6	2.7	2.4	47.0	43.6	56.6
Karnataka	2.9	3.1	2.4	49.1	47.7	52.0
Kerala	2.0	2.1	1.8	63.3	61.4	68.2
India	3.4	3.7	2.7	40.6	36.9	51.0

Source: IIPS 1995:27-29; 47-49.

In the northern states, total fertility rates are well above the national average while in the south, they are much below the national average. In Uttar Pradesh the rural TFR is as high as 5.2; the urban TFR is 3.6, while the urban TFR of Kerala is 1.8. What is the effect, if any, of urbanization, in Uttar Pradesh? Likewise, in the urban areas of UP only 32 per cent practise family planning compared to Kerala's urban figure of 68 per cent.

Perhaps literacy gives a clue to the differences between the North and South. In an environment of literacy such as in Kerala, even the illiterates tend to behave like the literates (see Table 9).

In Kerala, the practice of family planning is higher among the illiterates than among those with schooling. Since the family planning program is centred round sterilization, the logistics and the human settlement pattern in Kerala seem to have contributed to this phenomenon. But this is not true of any of the northern states.

Disparities between the states are indeed striking. For historical and political reasons, the reorganization of the states was done on a linguistic basis from 1956 onwards. In the size and population of the 25 states, India is a picture of demographic anarchy: one state (Uttar Pradesh) has a population of 119 million while another (Sikkim) has only 406,000. Because of the growing demand for regional autonomy by tribal communities, there are as many as seven states in north-east India. The tiny state of Mizoram has the second highest literacy rate in India, 82.3 per cent; according to NFHS the total fertility rate in Mizoram is 2.3. In the neighbouring tribal state of Meghalaya, the TFR is 3.7. No demographic pattern emerges even in the tribal-dominated states of north-east India.

Table 9
Percentage of currently married women using any contraceptive method by literacy and education

State	Illiterate	Primary School complete	Middle School complete	High School complete
North				
U.P.	27.9	28.5	29.5	40.4
Bihar	31.2	42.2	42.4	45.6
M.P.	33.6	44.2	42.7	49.1

Rajasthan	29.1	42.6	42.9	46.9
South				
Tamil Nadu	52.4	51.4	52.6	52.3
Andhra Pradesh	43.5	60.1	55.3	52.2
Karnataka	45.5	52.5	52.8	56.9
Kerala	66.7	60.5	60.4	62.9
INDIA	33.9	49.3	50.8	54.6

Source: IIPS 1995:55.

In the small hilly state of Himachal Pradesh in north-west India, because of the difficult terrain, access to health and education is a problem. Yet in literacy Himachal Pradesh has a better record than the two most prosperous states of Punjab and Haryana, and the practice of family planning is better in this state than in the neighbouring states. In fact, Himachal Pradesh may be regarded as a more successful state than Kerala. It is not industrialization and urbanization which have made Himachal Pradesh a demographically progressive state, but the realization of its people that the land cannot sustain them and therefore, salvation lies in migration. The people also know that without a minimum level of schooling, the chances of getting jobs are dismal. This has led to higher school enrolment rates, a higher age at marriage and a higher level of practice of family planning. Since the men migrate, leaving behind their families in the villages, women have to fend for themselves, look after the land, and cattle, and also take care of the elderly members of the family as well as the children. The women in the hills are hardy and self-reliant. Also, successive governments in Himachal Pradesh have met some of the basic needs of the people like drinking water and electricity even in remote villages. The combination of ecological factors, fulfilment of basic needs and the initiatives of the people makes Himachal Pradesh an interesting case for testing the theory of demographic transition.

The clamour for reservation of jobs for the Scheduled Castes, Scheduled Tribes, other backward classes (OBCs) as well as for Muslims and other minorities will increase in the absence of adequate employment opportunities in the organized sector; the vast poverty-based unorganized sector may increase and unless an attack is made on poverty and the basic needs of the people are met, no family planning program will succeed. International lobbies are putting great faith in figures for the 'unmet demand' for contraceptives, social marketing, developing an international market for contraceptives, etc. All this will not work if the literacy levels in India remain shockingly low and the basic needs of the people remain unfulfilled. The concern for curbing the birth rate should not be limited to the issue of unmet demand for contraceptives. What about the unmet demand for safe drinking water which has been an election promise of all political parties for the last several decades? There is certainly very great scope for making a quantum jump in India's mismanaged family planning program. What we need is a paradigm shift in our perception of the population problem.

Appendix Table 1 presents probable total fertility rates for the year 2001, based on purely mechanical projections by K. Natarajan of the Office of the Registrar General, India. The role of the BIMARU states is indeed depressing. The need for a paradigm change in population policy is, therefore, urgent.

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Appendix Table 1

Likely levels of TFR in 2001

State	TFR 1991 (SRS)	2001 (Projected)	Date by which TFR is likely to be 2.1
1. Andhra Pradesh	3.0	2.4	2001-06
2. Assam	3.5	2.7	2006-11
3. Bihar	4.4	4.1	2021-26
4. Gujarat	3.1	2.0	1996-01
5. Haryana	4.0	2.5	2001-06
6. Karnataka	3.1	2.8	2016-21
7. Kerala	1.8	0.6	1990
8. Madhya Pradesh	4.6	3.9	2026-31
9. Maharashtra	3.0	2.7	2011-16
10. Orissa	3.3	3.1	2016-21
11. Punjab	3.1	1.9	1996-01
12. Rajasthan	4.6	4.3	2041-46
13. Tamil Nadu	2.2	1.4	1991-96
14. Uttar Pradesh	5.1	4.4	2026-31
15. West Bengal	3.2	2.2	2001-06
India (weighted average)		3.1	

Source: Natarajan 1993.