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Towards Population Stabilisation

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The long term objective of the new National Population Policy (NPP), announced by the Government of India in February this year, is "to achieve a stable population by 2045, at a level consistent with the requirements of sustainable economic growth, social development, and environmental protection"¹.

Very soon the next decennial Census will be conducted in February-March 2001, and we will have massive data on the demographic situation in the country. Meanwhile, we have to depend on the Sample Registration System (SRS) data generated on a yearly basis by the Registrar General, and more importantly, on the National Family Health Survey (NFHS) data collected in the first (1992-93) and second (1998-99) rounds. On the basis of the preliminary reports of NFHS-II² (not yet available to the general public), we get a fairly good idea of the current demographic scene (Table 1). Both NFHS-I and NFHS-II fully confirm the diagnosis of India's population problem, which was made by the author in 1985³, urging the government to focus on the BIMARU states (Bihar, Madhya Pradesh, Rajasthan and Uttar Pradesh).

It will be seen from Table 1 that in rural areas of UP, Rajasthan, Bihar, Madhya Pradesh and Haryana, the Total Fertility Rate (TFR) is well over 3 per woman, while in Kerala, Himachal Pradesh, Tamil Nadu, Karnataka, Andhra Pradesh, Assam, Punjab and West Bengal it is below 2.5, and in Orissa it is 2.5. In urban areas, the BIMARU states have a TFR of over 2.5, while in

Assam, Kerala, West Bengal, Himachal Pradesh, Punjab and Karnataka, it is below 2.5.

Apart from Kerala and Tamil Nadu, which have done well in curbing population growth, and Karnataka and Andhra Pradesh as runners up, the small state of Himachal Pradesh has performed well and deserves recognition. Kerala has perhaps been over publicised while there has not been enough dissemination of knowledge of other models of demographic transition, such as those of Himachal Pradesh and Andhra Pradesh. Before describing these models, the main elements of the 'Kerala Model' may be stated.

KERALA MODEL

Kerala is a success story in India's quest for population stabilisation. It is worth noting that Kerala's birth, death and infant mortality rates are lower than those of China and the literacy rate is higher. All this was achieved in a democratic setup without any coercive measures. Several factors have contributed to the Kerala model of demographic transition, but these are not easily replicable in other states of India, specially in the BIMARU states. Presented below is a summary of the main factors which led to success in Kerala:

● **Maharajas:** The benevolent rulers of Travancore and Cochin had an enlightened policy towards health and education. The Human Resource Development Strategy was initiated in Kerala long ago and, among all Indian states today, it has the highest

rating for the "Human Development Index".

● **Missionaries:** Christian missionaries played a pioneering role in promoting health and education. They continued to run excellent hospitals, schools and colleges.

● **Mass movements:** There were several mass movements in Kerala led by social reformers and visionaries who electrified the masses and empowered them to fight for their rights. This developed a high degree of political consciousness.

● **Marxist governments:** The first elected Marxist government in India was in Kerala; and it implemented land reforms effectively. When the landowners lost land they realised that land alone could no longer sustain them and they turned to education in a big way as an alternative source of income. The beneficiaries of land reforms also realised that they could not make a proper living from the small parcels of land they had received. They turned to education. Land reforms thus created a high degree of motivation for education which yielded long-term dividends to Kerala.

● **Massive investment in health and education** by successive state governments in Kerala which, combined

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with good administration, helped in human resource development, better health standards and adoption of the small family norms.

● **Mega villages**, high density, marginal difference between rural and urban areas, coupled with a good transportation network (by road and water) made access to health and education easy. The rural-urban continuum is a unique feature of Kerala's human settlement pattern.

● **Matrilineal system**, though confined to certain higher castes, created a helpful social environment and a higher status of women compared to other states of India.

● **Marriage age of girls and boys increased** continuously and this made a dent on the birth rate. This in turn was the influence of education. Late marriages and educated mothers meant lower rates of maternal, infant and child mortality and higher practice of contraception.

● **Migration**: Historically, Kerala was always exposed to migration. After the oil crisis in the 1970s, there was a sudden spurt in emigration to the Gulf countries. Apart from easing population pressure and unemployment, such migration meant considerable monetary remittances to the family in Kerala. This increased the per capita real income of the people which is not adequately reflected in the national income statistics.

● **Media**: Both print and electronic media, along with the movies, helped in effective communication including the spread of family planning messages and advocacy of the small family norm.

● **Management of the family planning programme** was good in Kerala. In fact, the Ernakulam camp experiment of mass (male) sterilisation and excellent logistics gave Kerala a lead. Apart from the government, private doctors and hospitals also played a

significant role in reducing mortality and fertility rates.

TAMIL NADU MODEL

Briefly, the main factors responsible for the success of the Tamil Nadu model are as follows:

● **Social reform movements and strong political will**: Tamil Nadu is known for several social reform movements. In particular, leaders such as Periyar (Ramasami Naicker) influenced the masses in a big way and, among other things, made them conscious of responsible parenthood. His disciples became political leaders and ministers in course of time and this generated a strong political will on the population front. In passing, it may be noted that in Tamil Nadu it is quite common to invite politicians to preside over marriage ceremonies, and the political leaders invariably advise young couples to adopt the small family norm.

● **Early start in the family planning programme**: The first census after the independence of India was conducted in 1951, when Mr R.A. Gopalaswami, ICS, was the Census Commissioner. He saw in the census data the signals of an impending population crisis (though the census of 1951 recorded a modest growth rate of 1.3 per cent per year). His report on the 1951 census was an informed essay on population and food. He developed the concept of 'improvident maternity' to denote women with three or more children and pleaded for population stabilisation as early as possible. In Tamil Nadu, he pushed the male sterilisation (vasectomy) programme in the state and, as a result, Tamil Nadu got an early start. Tamil Nadu was known for good administration.

● **Mid-day meal programme**: The mid-day meal programme for school children introduced by the Chief Minister was a success. It improved school attendance and also contributed to the nutritional level of boys and girls. Thousands of women (mostly widows) were employed for cooking hot meals for school children. This was truly a welfare scheme. All this had a good impact on the family planning programme. It improved the credibility of the government – the people believed the government when it said that a small family was a must if they wanted to be better off.

TABLE 1
Comparison of NFHS-I and NFHS-II
Total Fertility Rate (Per Woman – 15 to 49 Years)

	Urban		Rural	
	NFHS-I 1990-92	NFHS-II 1996-98	NFHS-I 1990-92	NFHS-II 1996-98
Uttar Pradesh	3.58	2.88	5.19	4.31
Rajasthan	2.77	2.98	3.87	4.06
Bihar	3.25	2.75	4.15	3.58
Madhya Pradesh	3.27	2.61	4.11	3.56
Haryana	3.14	2.25	4.32	3.13
Gujarat	2.65	2.33	3.17	3.01
Maharashtra	2.54	2.24	3.12	2.74
Orissa	2.53	2.19	3.00	2.50
West Bengal	2.14	1.69	3.25	2.49
Punjab	2.48	1.79	3.09	2.42
Assam	2.53	1.50	3.68	2.39
Andhra Pradesh	2.35	2.07	2.67	2.32
Karnataka	2.38	1.89	3.08	2.25
Tamil Nadu	2.36	2.12	2.54	2.22
Himachal Pradesh	2.03	1.74	3.07	2.18
Kerala	1.78	1.51	2.09	2.07

Note: The states are arranged in descending order of rural TFR during 1996-98 according to NFHS-II.

Source: Compiled from Preliminary Reports of NFHS-II, International Institute for Population Sciences, Mumbai, 2000.

We shall now briefly describe the Himachal Pradesh model of demographic transition.

HIMACHAL PRADESH MODEL

Self-empowerment of women: The crucial factor in the Himachal Pradesh model is the self-empowerment of women. The main elements of the model are:

- Realisation on the part of the people of the limited carrying capacity of land in a hilly state such as Himachal Pradesh.

- Realisation that out-migration of males is the only way out for improving their economic condition.

- Modernisation through rural-urban interaction – a large number of villagers migrate to the cities and their periodic return home opens up villages in spite of their physical isolation. Women, especially young women, are left behind to take care of the land, cattle, children, old people (parents) and themselves. In this process, they empower themselves.

- Realisation of the great need for educating boys and girls so that boys get jobs in cities or in the army and girls get jobs or marry in cities. Both these factors lead to high enrolment ratio in schools and colleges. Higher literacy and educational levels in Himachal have greatly contributed to the success of family planning.

- Felt need for family planning to ensure upward social and occupational mobility through good education of children (possible only with small families) thereby avoiding unwanted pregnancies and enabling women to continue their economic activity and fend for themselves.

- Felt need for raising the age at marriage of girls in order to complete at least the minimum education level.

Some other factors which are relevant in understanding the Himachal Pradesh model are:

- Modernising elements, including historical legacy of foreign families, the impact of Simla – once the summer capital of the British Empire, the impact of army personnel as well as ex-servicemen, the development of hill stations such as Manali, the introduction of winter sports, development of tourism, including cultural tourism, special types of old age homes, artists' colonies, etc.

TABLE 2
Rural Infant Mortality Rates, 1995-98 (Per 1,000 Live Births)

India/States	1995	1996	1997	1998
India	80	77	77	77
Madhya Pradesh	104	102	99	104
Orissa	107	99	100	101
Uttar Pradesh	89	88	89	89
Rajasthan	90	90	89	87
Assam	78	79	79	80
Andhra Pradesh	74	73	70	75
Haryana	70	70	70	72
Gujarat	68	68	69	71
Karnataka	69	63	63	70
Bihar	74	73	73	68
Himachal Pradesh	63	63	64	66
Maharashtra	66	58	56	58
Tamil Nadu	61	60	58	59
Punjab	58	54	54	58
West Bengal	61	58	58	56
Kerala	16	13	11	15

Source: Registrar General, India, SRS Bulletin, April, 2000.

- Prosperity brought about in certain areas, for example, the apple belt, by rapid strides in the development of agriculture, orchards and horticulture.

- Impact of Chinese aggression in 1962 on the construction of roads, leading to a vastly improved transportation network.

- Success of state governments in providing water and electricity to almost all villages.

- Availability of telecommunication facilities in most villages.

- The general acceptance by people of a philosophy of living in tune with nature, respect for forests, rivers and mountains and an abiding interest in religion, god and a moral code.

- On the whole, a history of good political leadership and fairly good governance, comparatively low level of corruption and respect for honesty among God-fearing people.

ANDHRA PRADESH MODEL

The continued supply of subsidised rice in this state added greatly to the credibility of the government in the eyes of the common people and they were willing to listen to the government. The focus in the family planning programme is still on sterilisation, in spite of the Central

Government's advocacy of spacing methods. The management of the sterilisation and reproductive and child health (RCH) programme is efficient (unlike in the BIMARU states).

Another important factor contributing to the success has been a high exposure of the population to the media, especially the electronic media. According to the latest NFHS data, 76.3 per cent of the ever-married women in the age-group 15-49 in Andhra Pradesh were exposed to some media (compared to only 27.3 in Bihar, and 83.7 per cent in Himachal Pradesh). Thus, in spite of the low literacy, people are exposed to media, TV and cinema and this has greatly contributed to the raising of the motivational level for family planning practices. This, coupled with a strong political leadership provided by a modern result-oriented chief minister has contributed to the relative success of the Andhra model of demographic transition. Regarding other factors underlying the Andhra Pradesh model, reference may be made to a recent contribution⁴ in *Economic and Political Weekly*.

RURAL INFANT MORTALITY RATE

One of the disturbing features of the Indian demographic scene concerns the high rural-infant mortality

TABLE 3
Male-Female Difference in IMR, 1998 (Points Per 1,000)

	Rural			Urban		
	Difference			Difference		
	Male	Female	F-M	Male	Female	F-M
India	76.0	78.9	2.9	41.5	48.7	7.2
Madhya Pradesh	106.2	101.5	-4.7	50.3	61.3	11.0
Orissa	102.6	99.3	-3.3	57.5	74.3	16.8
Uttar Pradesh	82.4	95.8	13.4	55.8	75.4	19.6
Rajasthan	87.0	87.6	0.6	58.0	61.6	3.6
Assam	88.3	70.1	-18.2	38.3	34.6	-3.7
Andhra Pradesh	73.5	76.1	2.6	36.0	40.0	4.0
Haryana	62.4	84.5	22.1	53.0	66.3	13.3
Gujarat	69.4	73.0	3.6	45.1	47.4	2.3
Karnataka	74.5	66.0	-8.5	23.4	26.9	3.5
Bihar	67.7	68.9	1.2	64.9	36.7	-28.2
Himachal Pradesh	60.8	79.2	18.4	41.6	32.5	-9.1
Maharashtra	57.4	58.7	1.3	17.1	49.7	32.6
Tamil Nadu	52.1	65.9	13.8	40.0	39.5	-0.5
Punjab	51.6	66.7	15.1	57.0	17.9	-39.1
West Bengal	59.1	53.1	-6.0	56.3	24.8	-31.5
Kerala	16.8	13.3	-3.5	21.9	12.5	-9.4

Source: Derived from data given in Registrar General, India, SRS Bulletin, April 2000.

rate and the big gap between male and female Infant Mortality Rate (IMR), even in urban areas.

It will be seen that the decline in the IMR since 1995 is very slow. Subject to the accuracy of SRS data, it is shocking to observe that in several states (including Kerala), the IMR is higher in the year 1998 compared to that in the year 1997 (Table 2). SRS yearly data tend to be erratic; nevertheless, a jump from 99 to 104 in rural Madhya Pradesh may reflect reality and not spurious statistics. In fact, such official data pose a challenge to the strategy of RCH advocated with much propaganda by the Ministry of Health and Family Welfare.

Table 3 gives the male-female differences in IMR in rural areas of India and the states according to SRS data. The figures are very erratic in several states. Obviously, there is a statistical problem and/or poor quality of field work and one is not very confident about SRS yearly data. Nevertheless, the picture is quite shocking – in states such as Haryana, the rural female IMR is higher than the male IMR by over 22 points. Is it the

impact of nutrition or the neglect of the girl child or female infanticide?

Haryana and Orissa do not feature in the original list of BIMARU states on statistical grounds (because the population in each of these states constitutes less than 5 per cent of India's total population – my cut-off point for classification). In spite of a high rate of economic growth, Haryana has remained socially backward. Punjab is a shade better. Himachal Pradesh, in contrast, fares much better, primarily because of self-empowerment of women and the concern for educating the girl child.

It is clear that if the BIMARU states should progress, they must learn from Kerala, Tamil Nadu, Andhra Pradesh and Himachal Pradesh. Three of the BIMARU states will soon witness vivisection with the formation of three new states.

This could bring added difficulties unless the population problem is tackled in right earnest in the truncated BIMARU states as well as in the new states of Chattisgarh, Jharkhand and Uttaranchal.

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NUTRITION NEWS

● Arrangements for the IXth Asian Congress of Nutrition, which is scheduled for February 24 to 27, 2003, under the Presidentship of Dr C. Gopalan, have now commenced. The Prime Minister of India has agreed to be the patron of the Congress. An apex advisory committee, under the Chairmanship of Dr A.P.J. Abdul Kalam, Scientific Advisor to the PM; an organising committee under the Chairmanship of Dr S. Vardarajan, former DG – CSIR and President of INSA; and a scientific committee under the Chairmanship of Dr B.S. Narasinga Rao, former Director, NIN and Dr Kamala Krishnaswamy, Director NIN, have been set up.

● The Annual Meeting of the Nutrition Society of India will be held at NIN, Hyderabad on December 1 and 2. The Gopalan Oration will be by Dr Gurudev S. Khush, Pricipal Plant Breeder and Head, Division of Plant Breeding, Genetics and Biochemistry, International Rice Research Institute, Phillipines and World Food Prize Winner. The Srikantia Memorial Lecture will be delivered by Dr S. Rajagopalan, Distinguished Fellow at M.S. Swaminathan, Research Foundation, Chennai.

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