Population Trends India

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India is the second most populous country in the world. Its current estimated population of 886 million is greater than the combined populations of Africa and the Near East. India has only 2.3 percent of the world's land area but more than 16 percent of the world's population.

Fertility in India has been slowly declining. The total fertility rate declined from about 6 children in the 1960's to an estimated 3.7 children in 1992. During the same period, the crude birth rate declined from 42 to 45 births per 1,000 persons to 30 births per 1,000 persons. Fertility varies widely among the states of India (figure 1). The 1988 total fertility rate (TFR) in Kerala of 2 children per woman was below the replacement level. In contrast, in the four most populous northern states of Bihar, Madhya Pradesh, Rajasthan, and Uttar Pradesh, comprising almost 40 percent of the Indian population, the average TFR exceeded 5 children per woman (IRG, 1991a, p. 26).

In spite of the decline in fertility, India's population is concentrated in the younger ages with 36 percent under age 15 (figure 2). Also, the 1991 census results indicated that the average annual growth rate for the 1981-91 decade (2.1 percent) had not fallen significantly from the growth rate for the previous decade (2.22 percent) (IRG, 1991b, p. 21). About 161 million people, more than the combined population of the United Kingdom, Netherlands, and France, were added to the population during the 1981-91 decade. Currently, India's population is growing at an estimated rate of

Figure 1. Total Fertility Rate, by Major States: 1988 (Births per woman)





1.9 percent annually. At this rate, it will double in 37 years. Even with a projected decline in fertility to 2.3 children in 2020, it will surpass a billion by the turn of this century and will almost double before it is stabilized (World Bank, 1989, pp. 94-95).

The overall level of mortality in India has improved substantially. An Indian born today can expect to live about 58 years compared with only 27 years in 1921-31 (Davis, 1951). Current estimates show that life expectancy for females (58.1) exceeds that for males (57.3) by less than a vear. Substantial declines in infant and child mortality during the 1960's and 1970's contributed to the large increase in life expectancy. The current level of infant mortality of 83 infant deaths per 1,000 births is relatively high but has been reduced by almost 45 percent from the level of about 150 infant deaths in 1961-70 (Adlakha and Kirk, 1974).

Contraceptive Prevalence

In 1951, India became the first developing country to establish a family planning program, but its efforts remained limited until 1966. In 1967, when the program was revitalized, the couple protection rate (CPR) was only 4 percent (IDFW, 1991, p. 236). Since then, contraceptive prevalence has increased but shows an uneven trend (figure 3). According to official statistics, by March 1991, 44 percent of all couples (63 million out of 145 million) were "effectively protected" (Kapoor, 1991, p. 1).

The increase in effective protection is due mostly to sterilization. In 1990, more than two-thirds of all couples effectively protected (43 million out of 61 million) had been sterilized. Among sterilization clients, most are female. In recent

Fiaure 3. Percent of Couples Effectively Protected, by Method: 1971 to 1990



Sterilization





vears, use of the IUD has increased, but in 1990, only 6.3 percent, or fewer than 9 million, of all couples were using the IUD. Another 10 million were using other modern methods (figure 4). Although official data indicate substantial progress in the use of family planning methods, analyses of the Indian data show that the crude birth rate has declined less than one might expect on the basis of the reported increase in CPR. One reason for this is that sterilized couples, constituting almost 70 percent of the effectively protected couples, are relatively older and al-

ready have borne several children before becoming sterilized. According to the 1988-89 survey of Family Planning Practices in India, the average age of the wife of all sterilized couples was 33.5 years (30 years at the time of acceptance), and sterilized couples on average had over 3.5 living children, compared with between 2.4 and 2.7 living children for couples using other modern methods (figure 5) (ORG 1990, p. 93).

In 1990, according to official statistics, there were about 143 million married women of childbearing age, 15 to 44 years, and by the

Figure 5. Average Number of Living Children of Family Planning Users, by Method: 1988



Figure 6. Trends in Urbanization: 1950 to 2000

Percent of total population



1950'55 '60 '65 '70 '75 '80 '85 '90 '95 '00

end of the current decade they will increase by 37 million. If the CPR were to remain at the 1990 level, India would need to add another 16 million users by 2000. If India were to achieve its target of 60 percent users by 2000, then the number of users would have to nearly double, from 61 million in 1990 to 108 million in 2000. Sustained political commitment and large financial input would be needed to achieve such an increase.

Realizing that a low fertility goal may not be achieved through

emphasis on sterilization, the government's new "action plan" for revamping the family planning program calls for a shift in emphasis. Younger couples with high fertility potential will be vigorously encouraged to adopt spacing methods. Women would have a wider choice of contraceptives, including a gradual introduction of NORPLANT and injectables (IMOH, 1992).

Urbanization

India is becoming more urbanized, as its urban population is growing at a faster rate than its total population (figure 6). In 1950, a little more than 17 percent of India's population lived in urban areas. Now 28 percent is urban (U.N., 1991). Between 1950 and now, India's urban population increased fourfold, from 63 million to 248 million. By 2020, India will add another 377 million people to its urban population, more than the combined current population of the United States and Japan.

Bombay, Calcutta, and Delhi are among the 14 current mega-cities (cities with population of 8 million or more) in the developing world. These cities together account for 13 percent of India's urban population. India's urban population is spread among 3 mega-cities, 20 other cities of at least 1 million population, and numerous other cities and towns.

Age Composition

Currently, India has a relatively young population; 56 percent of Indians are under age 25 and 36 percent are under age 15. Because of anticipated reductions in fertility, the proportion of children under 15 will decline steadily and will reach 26 percent in the year 2020. Yet, the number of children under 15 will rise from 317 million to 344 million in 2020. The population in working ages, 15 to 64, will grow faster than the total population and will increase by 354 million between now and 2020. During the same period, the number of women of childbearing ages will increase from 218 million to 342 million.

References

Adlakha, Arjun and Dudley Kirk. 1974. "Vital Rates in India 1961-71 Estimated from 1971 Census Data." Population Studies. Vol. 28, No.3, pp. 381-400.

Davis, Kingsley. 1951. The Population of India and Pakistan. Princeton University. Princeton, New Jersey.

India Department of Family Welfare (IDFW). 1991. Year Book *1989-90.* New Delhi.

India Ministry of Health and Family Welfare (IMOH). Action Plan for Revamping the Family Welfare Programme in India. New Delhi.

India Registrar General (IRG). 1984. Report and Tables Based on 5 Percent Sample Data. Census of India 1981. Series 1, Part II- special, New Delhi.

. 1991a. Sample Registration System *1988.* New Delhi.

. 1991b. ProvisionalPopulation Totals. Census of India *1991*. Series 1, Paper 1 of 1991, New Delhi.

Kapoor, P.N. 1991. Family Planning and Other Determinants of Population Growth in Selected States of India. Paper presented at XV Conference of the Indian Association for the Study of Population.

Operations Research Group (ORG). 1990. Family Planning Practices in India, *Third* AllIndia *Survey*. Baroda.

United Nations. 1991. World Urbanization Prospects *1990.* New York.

The World Bank. 1989. Asia Region Population Projections, by Rodolfo A. Bulotao, et al., Washington D.C.

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Table 1. **Population Indicators, for India: 1980 to 2020** (Population in thousands)

Indicator	1980	1990	1992	2000	2020
POPULATION Total country Urban Rural	692,394 159,943 532,451	852,656 230,217 622,439	886,3451 248,177 638,168	,018,1051 328,848 689,257	,320,746 624,713 696,033
Male, total country All ages Oto 14 6 to 12 13 to 18 15 to 44 15 to 49 15 to 64 65+	359,458 142,886 64,933 47,997 159,678 174,575 204,426 12,146	441,175 159,568 70,682 56,464 208,926 227,335 265,578 16,029	458,257 163,314 73,385 56,786 218,426 237,836 277,916 17,027	524,702 173,662 80,294 63,786 254,834 280,210 329,184 21,856	674,211 175,667 81,491 68,743 319,624 362,062 456,485 42,060
Female, total cour All ages 0 to 14 6 to 12 13 to 18 15 to 44 15 to 49 15 to 64 65+	ntry 332,936 132,734 60,014 44,500 147,379 161,200 188,952 11,250	411,481 149,967 66,133 51,779 191,249 208,699 245,844 15,670	428,088 154,058 69,073 52,272 199,747 218,015 257,189 16,841	493,403 165,124 76,273 60,226 234,519 257,723 305,591 22,688	646,534 168,328 78,138 65,867 302,918 341,999 432,469 45,737
Married females 15 to 49	128,296	167,897	176,006	209,170	281,014
15 to 19 20 to 24 25 to 29 30 to 34 35 to 39 40 to 44 45 to 49	15,405 26,042 23,875 20,142 17,173 14,197 11,462	18,447 34,013 32,328 28,180 22,644 17,814 14,471	18,779 34,790 34,203 29,846 24,340 18,900 15,148	21,237 36,690 38,968 37,060 30,878 25,106 19,231	23,678 45,942 50,693 48,444 43,660 36,323 32,274
DEPENDENCY R Both sexes	ATIO 76.0	66.7	65.6	60.4	48.6
LIFE EXPECTANC Both sexes Male Female	CY AT BIR 52.5 52.9 52.1	TH (years 56.8 56.5 57.1) 57.7 57.3 58.1	61.4 60.6 62.3	69.2 67.5 71.1
INFANT MORTAL Both sexes Male Female	ITY RATE. 116.4 113.9 119.0	(per 1,000 86.7 86.2 87.3) births) 82.6 82.2 83.0	65.8 66.2 65.5	34.5 36.3 32.7
TOTAL FERTILIT Fertility rate per w	Y RATE oman 4.7	3.8	3.7	3.0	2.3

Note: Dependency ratio is the ratio of persons under age 15 and over age 65 to those ages 15 to 64 years.

Source: U.S. Bureau of the Census, Center for International Research, International Data Base.

Table 2.

Couples Effectively Protected, by Method of Family Planning: Selected Years

	Percent currently protected			Percent distribution of protected couples		
Method	1970-	1980-	1989-	1970-	1980-	1989-
	71	81	90	71	81	90
All	10.4	22.8	43.3	100	100	100
IUD	1.4	1.0	6.3	13	4	15
Sterilization	8.0	20.1	30.1	77	88	70
Othermodern	1.0	1.7	6.9	10	7	16

CHILDLESS WOMEN: 1991

Percent of ever-married women aged **45 to** 49 4.4

Source: IDFW, 1991, table E.I; and IRG, 1984, table C6.

Table 3. Average Age of Users of Selected Methods: 1988

(Married women aged 15 to 49)

Method	Average age		
Pill			
IUD	27.8		
Condom			
Sterilization			

Source: ORG, 1990, table 7.15.

Table 4. Fertility Rates (Per 1,000 women)

Age	1971	1980	1990
15 to 19 20 to 24 25 to 29 30 to 34 35 to 39 40 to 44 45 to 49 Total	119 291 288 227 152 69 33	93 260 240 172 103 47 21	82 241 204 125 68 32 12
fertitily ra	te an 5.9	4.7	3.8

Source: U.S. Bureau of the Census, Center for International Research, International Data Base.