

## Stabilizing India's population: easier said than done

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India illustrates the paradox of the world population: even though birth control is widely practised and some states have below-replacement fertility, the population is increasing rapidly and is expected to grow by 50% in the next 50 years. Jacques Véron gives two reasons for this paradox: a population that is still very young, and the Indian authorities' past and present difficulty in taking population inertia into account.

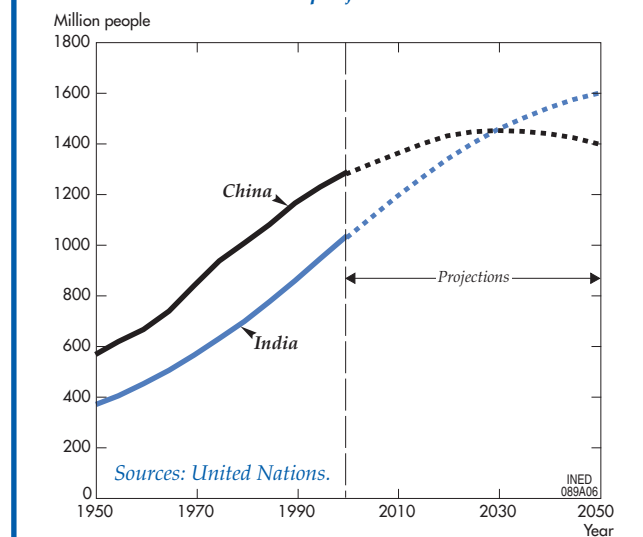
In the 2001 census, India's population totalled just over a billion people (1.027 billion). According to United Nations projections, the figure could reach 1.6 billion by 2050 (Figure 1). India is thus expected to overtake China by 200 million people. The Indian government's concern to control population growth dates back many years and a population policy was introduced for this purpose. However, stabilization is still a long way off in India, unlike in China, where the population is expected to level off by 2030. Although population growth has slowed considerably, India has accumulated such potential for growth that the target of population stabilization has had to be regularly deferred. The population policy introduced in 2000 forecast stabilization by 2045. In the light of the United Nations projections, that horizon will probably also have to be pushed back.

### ◆ 50 years of family planning

In 1951, a few years after independence, the Indian government introduced its first five-year plan, which already referred to a "population problem". "Rapid population growth" was considered an impediment to the country's development. At the time, India had a

population of 361 million and annual population growth of 1.25% (between 1941 and 1951). The government introduced a family planning programme to make cheap and effective contraception available to all categories of the population. Emphasis was also placed on raising the marriage age of girls in a bid to reduce fertility (the average age of girls at marriage was 15.6 at the time), sterilization was promoted, and abortion was legalized for married women in the early 1970s.

Figure 1 – Population trends in India and China since 1950 and projections to 2050



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The policy of providing contraceptives soon proved inadequate. Opening family planning clinics was not sufficient to bring down fertility. By the mid-1970s, family planning had clearly failed. The population was growing at a rate of 2.2% per year (at that rate, a population will double in 32 years). In 1975, the prime minister, Indira Gandhi, instigated emergency rule and, in 1976, a "national population policy" was introduced and made a national priority. Although the average number of children born to each woman had started to fall, the population was still increasing at the same pace. Compulsory sterilization for mothers of three or more children was considered. The zeal of some states resulted in 8.3 million sterilizations in 1976-1977, compared with a forecast of only 4.3 million.

The Congress Party's electoral defeat in 1977, due partly to the unpopularity of forced sterilizations, appeared to signal the end of an active population policy. The "family planning" programme became a "family welfare" programme, and reversible methods of

contraception were encouraged. But the new government was as concerned as its predecessor by the population problem, and the change in attitude was only apparent. Returned to power in 1980, having learned the lessons of her electoral demise, Indira Gandhi asserted that, in order to achieve the target of family limitation, "persuasion" was preferable to "coercion". "Family planning must come from the people, by the people and for the people," she declared.

Between 1970 and 2000, the percentage of couples of childbearing age practising birth control rose five-fold, from 10% to 50%. Strikingly, although the use of oral contraceptives and intrauterine devices is officially encouraged, three-quarters of couples opt for sterilization. The number of sterilizations increased sharply from the start of the 1980s, then stabilized at between 4 million and 5 million per year (Figure 2). Over the same period, sterilization has become female-only (98% in the late 1990s) (1).

Despite a decline in fertility from the 1960s onwards, albeit less sharp than in China (Figure 3), India's population was multiplied by 2.8 between 1951 and 2001. In 2000, India introduced a new population policy, with new targets of replacement-level fertility by 2010 and population stabilization by 2045. But those targets, like the previous ones, are likely to be thwarted by demographic inertia.

### ◆ The birth rate is falling more slowly than expected

It would be wrong to claim that India's population policy has failed completely because population growth has accelerated in spite of family planning programmes. Demographic inertia must be taken into account. The birth rate did fall in the 1970s and 1980s, but since the death rate also fell, the growth rate did not come down. The target of rapid population stabilization is hampered by India's young population. Even though fertility is falling, the number of people of childbearing age is increasing, so the number of births remains high. The Indian government is setting unrealistic population targets, in particular for the birth rate. The target set in 1962 was for the birth rate to fall from 42 per 1,000 to 25 per 1,000 by 1973, but the actual rate in 1973 was 35 per 1,000 (Figure 4). A new target was set in the mid-1970s of 25 per 1,000 by 1984, but the actual rate was 34 per 1,000 by that date.

(1) Although India's Tenth Five-Year Plan (2002-2007) includes a commitment to promoting male sterilization, which is considered more effective than female sterilization, the trend seems unlikely to reverse.

Figure 2 – Annual number of sterilizations in India

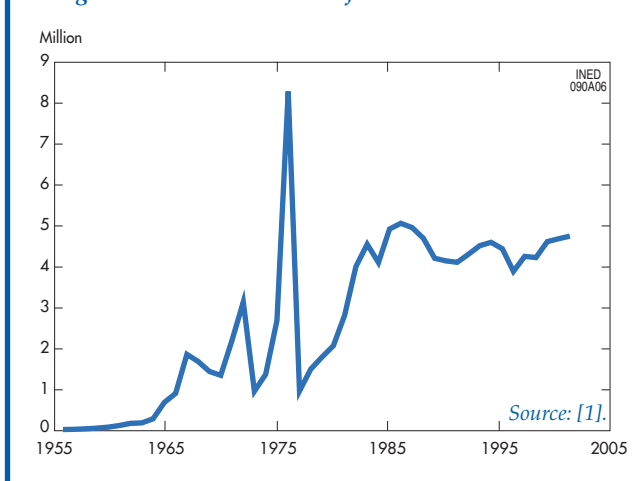
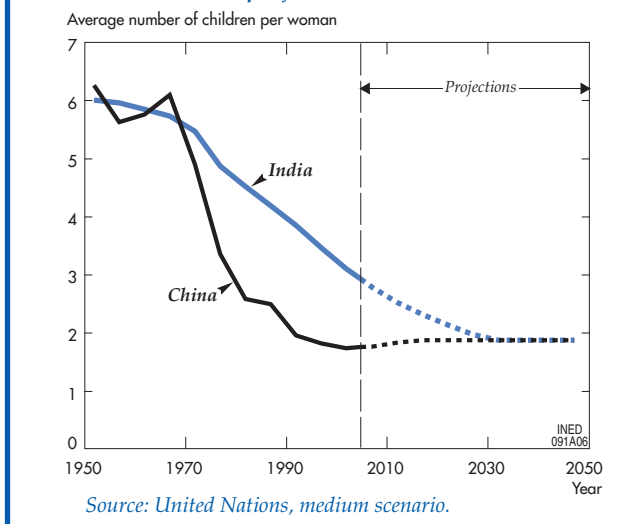
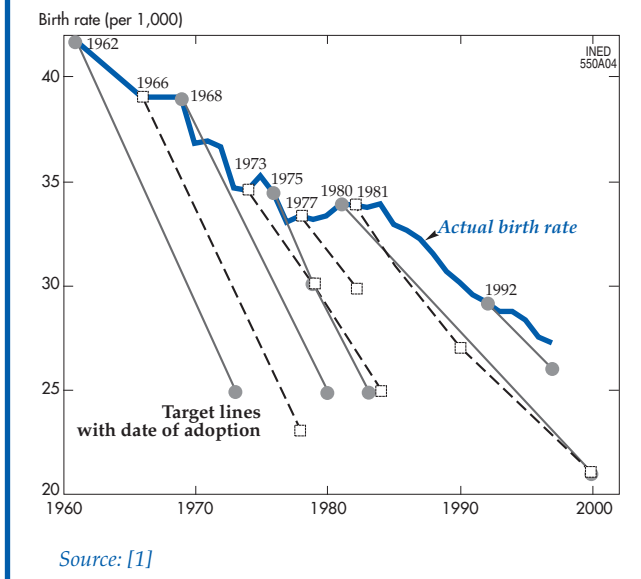


Figure 3 – Fertility in India and China since 1950 and projections to 2050



**Figure 4 – Comparison between birth-rate targets set by family planning programmes and actual birth rates**



Aware of demographic inertia, the Indian government set different kinds of targets with different horizons in the population policy introduced in 2000: an immediate target of meeting needs for contraception, healthcare infrastructure, staff and services to improve reproductive health; a medium-term target of fertility at the replacement level (2010); and a long-term target of population stabilization (2045).

#### ◆ In Kerala fertility is lower than in France

Though completed in southern India, the demographic transition is still underway in northern India, where the most populous states are located. Kerala State, in the south, has long been an exception, with an early and rapid demographic transition: the crude birth rate dropped from 44 per 1,000 in the 1950s to 17 per 1,000 in 2002, and fertility, which stood at 5.6 children per woman in the 1950s, is now lower than in France (1.8 versus 1.9) (Table). The demographic transition is complete in the four southern states of Kerala, Tamil Nadu, Andhra Pradesh and Karnataka.

The sweeping changes in those states can be attributed to effective population and development policies [2]. K. C. Zachariah lists many factors that have contributed to lowering fertility in Kerala: an increase in the marriage age, contraception, sterilization, mother-and-child health programmes, better education for women, measures in favour of gender equality, and the states' political commitment to welfare action [3]. The increase in the marriage age is estimated to account for 30% of the decline in fertility between 1968 and 1978. Contraceptive use has also spread rapidly: the

**Table - Population in 2001 and population indicators in 2002 in the largest states of India**

State	Population in 2001 (million)	Fertility (average number of children per woman)	Infant mortality (per 1,000)	Natural increase (%)
Andhra Pradesh	76	2.2	62	1.3
Assam	27	3.0	70	1.7
West Bengal	80	2.3	49	1.4
Bihar	83	4.3	61	2.3
Gujarat	51	2.8	60	1.7
Haryana	21	3.1	62	2.0
Karnataka	53	2.4	55	1.5
Kerala	32	1.8	10	1.0
Madhya Pradesh	60	3.8	85	2.0
Maharashtra	97	2.3	45	1.3
Orissa	37	2.6	87	1.3
Punjab	24	2.3	51	1.4
Rajasthan	57	3.9	78	2.3
Tamil Nadu	62	2.0	44	1.1
Uttar Pradesh	166	4.4	80	2.2
<b>India (1)</b>	<b>1,027</b>	<b>3.0</b>	<b>63</b>	<b>1.7</b>

(1) The national total includes the population of small states that are not shown in this table.

Source: Census of India (2001) and Sample Registration System (2004).

percentage of women of childbearing age using contraceptives rose from 37% in 1981 to 72% in 1992. A high rate of infant mortality is considered to hold back fertility decline because parents have many children to ensure that some survive to adulthood. The vaccination programme launched in 1985, which covered half of all children and reduced infant mortality, thus also contributed to the fertility decline. Zachariah attributes the rapid decline in fertility to interaction effects between the provision of family planning services and an improvement in the socioeconomic environment. But a rapid decline in fertility may also be due to a high level of poverty. In a context of economic stagnation, as in Tamil Nadu for example, parents who want a better life for their children can only achieve their aspiration by limiting their family size, thereby lowering fertility.

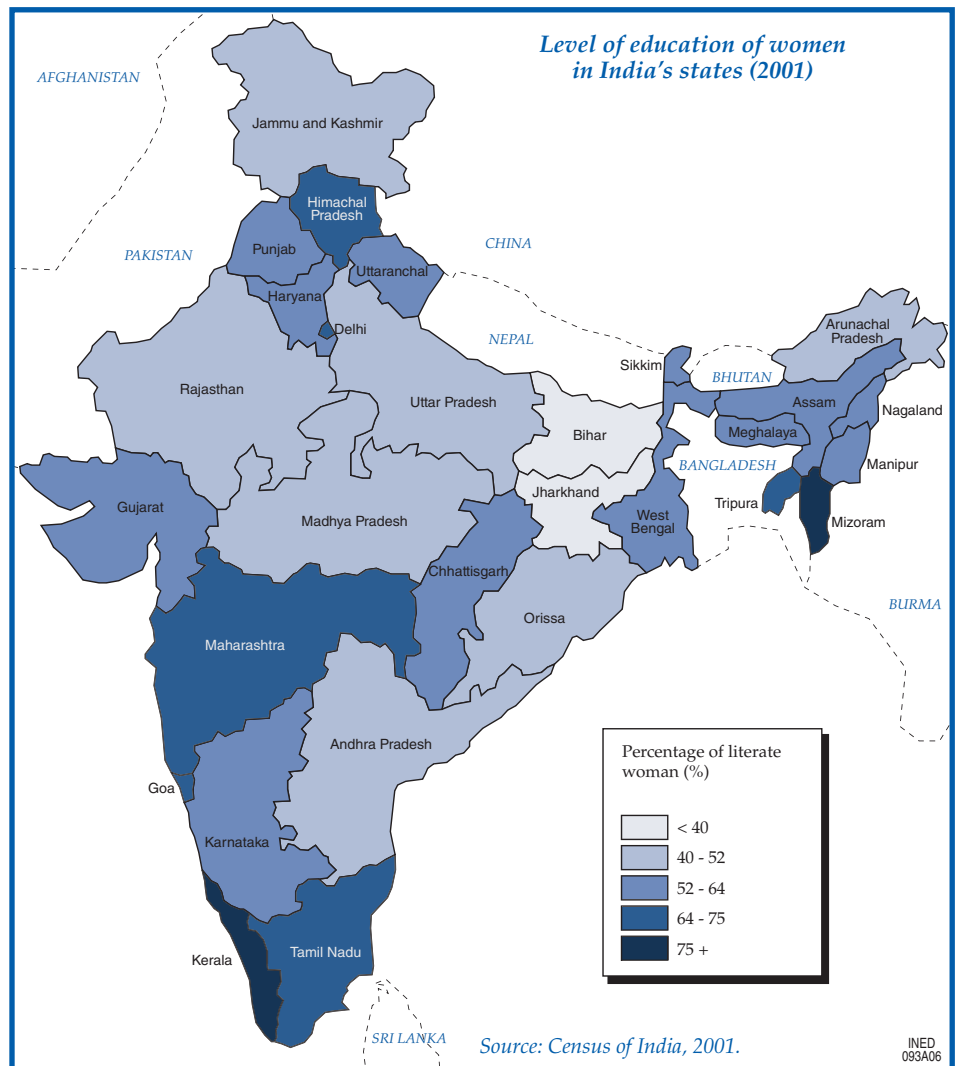
#### ◆ The handicaps of the north

In the densely populated states of the north – Uttar Pradesh, Bihar, Madhya Pradesh and Rajasthan – population growth is still rapid, with annual rates of increase above 2%. Those four states, home to 365 million people in 2001, represent a large share of the national total and account for the apparently slow pace of demographic change in India. The annual rate of natural increase is the highest in Bihar (2.3% in 2002). In Uttar Pradesh, Bihar, Madhya Pradesh and Rajasthan, birth rates were above 30 per 1,000 in 2002, and fertility was around 4 children per woman, compared with a

national average of 3 children per woman. Women in Uttar Pradesh, India's most populous state (166 million people in 2001) gave birth to an average of 4.4 children in 2002. In the northern states, a combination of factors is delaying demographic transition: a lower level of education, in particular among women (Map); less favourable gender relations; higher infant and child mortality; lower coverage by healthcare services; and less political commitment to family planning programmes [4].

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India's population will inevitably continue to grow for at least 50 years, increasing by a half over the period. The country must also struggle with persistent poverty, widespread under-employment and unemployment, and severe environmental damage. Improving life for the whole population – not just the urban middle class – and providing decent living conditions for an additional 500 million people by 2050 is the formidable sustainable development challenge facing India.



#### Box

##### Will selective abortion of girls increase?

The last census revealed a substantial numerical imbalance between boys and girls in some states of India. In Haryana and Punjab, for example, 120 boys were born for every 100 girls in 2001 [5]. This imbalance can be attributed to the decline in fertility. Couples want fewer children and, given a strong traditional preference for boys, they use prenatal ultrasound scans to determine the sex of the unborn baby and often decide to abort female foetuses.

A law was passed in 1994 banning the use of prenatal ultrasound scans for sex selection, and efforts to combat selective abortion were recently stepped up. Despite these measures, the sex ratio continues to increase. Sex selection is particularly hard to curb because it is practised even among "educated" couples. Stronger public action to reduce fertility may even expand the practice. The persistence of dowries despite an official ban dating from 1961 is also a factor. As living standards rise, the cost of dowries has even increased, exacerbating discrimination against girls.

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