

# The Year 2000 in India: Experts Paint Grim Picture

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NEW DELHI—India in the year 2000: about half the population will be homeless, food will be scarce, the landscape will be bare of trees, the fuel shortage will be acute, the cities will be proliferating.

A panel of Indian economists and social scientists has issued a Government report that shapes a dark vision for a nation whose population is growing by 13 million each year, whose per-capita food availability is declining, whose key resources are being depleted.

"The basic message of the forthcoming crisis is loud and clear," says the document. "Unorthodox and highly unconventional methods will have to be generated."

## Drastic Change Urged

Without bluntly saying so, the panel of the National Committee of Science and Technology, a Government body, urges compulsory population control and a drastic change in Indian society. The panel says, in effect, that the way Indians live — their food habits, housing, methods of travel and work, education, leisure hours — must undergo radical shifts if the nation hopes to "avert the future crisis."

The report was prepared before the explosion of the nuclear device on May 18 that made India the world's sixth nuclear nation. Indian officials insist that the nuclear program is solely for peaceful purposes

and will help transform the economy. Oil and gas exploration and mineral mining are key uses for "peaceful" explosions, officials say.

The document cites uses of nuclear energy, but emphasizes power generation — the shortage of power is now a serious problem here — and says that the nation must "exploit alternative sources such as solar, wind and fusion energy."

The 13-member panel held three private meetings earlier this year and recently issued its report, which was made up of a series of background and discussion papers. One panel member said it was a preliminary report and one of the first Government efforts to deal with the distant future.

The panel member, who declined to be identified, said that the bleak figures in the document would be affirmed in the year 2000 "only if present trends continue." He added:

"There's no reason to assume that the present trends will continue. We can only assume that we can and will mend our ways."

One of the bleakest trends is the destruction of trees, which critically affects the soil's moisture and nutrients. Currently, 100 million tons of wood are cut each year, mostly for fuel. If the population doubles — and such sources of energy as kerosene become more expensive — the felling of trees could reach 200 million tons a year by the year 2000.

The conclusion of the document maps out a "scenario" for the year 2000. According to

the panel, it represents an alternative to a crisis and is designed to serve as a guide for the nation's planners, economists and social scientists.

The scenario is as follows: "Population has been stabilized around 900 million, using compulsory methods. The energy needs are satisfied by successful tapping of solar energy. Such unconventional food as algae or manufactured proteins satisfy 50 per cent of the nutritional requirements. In addition, pills that can supply nutritional requirements for the whole day are available free to those who cannot afford to buy the foods.

"Economic desalination and large-scale pumping of water into long distances very much inside the country is achieved so that water is available to the soil, reducing the dependence on the monsoon for food production.

"Car culture is transformed into bus and cycle culture."

The report adds that because of the high-population density, Indians will live "in kibbutz-style communes" and use "community kitchens to reduce the requirements of construction materials per person."

According to the scenario: "Communication satellites impart education, training and entertainment on a mass scale in large open-air auditoriums with special acoustics and optics to reach thousands of people at one time. Instead of present sports like tennis and cricket, less resource-consuming exercises like yoga, gym-

nastics and cycling are resorted to. Need for travel is reduced to a large extent by more effective electronic communication techniques possible using picture phones.

"Many of the industrial processes are based on renewable basic raw materials like wood, grass, seaweeds and plants. The parks and gardens are cultivated mainly with new dwarf trees bearing fruits and vegetables instead of flowers."

The panel included prominent scientists and research analysts.