

## GENERAL SCIENCE

# World Overpopulation Zooms

Only the nuclear war problem looms as a greater threat to mankind's future than the problem of too many people, Ann Ewing reports.

► THERE ARE already too many people in the world. The "population explosion" is real and there will be even more tremendous increases in the future.

Today's world population is about three billion. It is growing by 51 million persons a year.

This is more than the world can feed adequately. Or house adequately. Or clothe adequately. Or even educate adequately. It will be difficult, if not impossible, to find school facilities to educate 51,000,000 or more children each year.

If the present rate of growth continues, and experts agree almost unanimously that it will, the population in the year 2000 will be double what it is now, or six billion persons.

For every four persons on earth in 1950, there are five today, and ten years from now there will be six.

## Rate of Increase High

The average rate of growth for the entire earth is 1.7% per year, but some regions of the earth are growing much faster than the world's average. Even a seemingly small increase in such a percentage can result in very rapid total increases in population, since population grows in the progression: 2, 4, 8, 16, 32, 64, 128, etc.

In areas that are growing at the rate of two percent a year, such as India, the population will double in 35 years. In a century there would be seven times as many inhabitants in that region as today.

In still other regions, however, such as Latin America, the population is growing at an even faster rate—three and a half percent. There, the present population would double by 1982, in only 20 years. In a century, countries with that rate would have 32 times as many persons as now.

The major cause of this recent spurt is a worldwide decline in mortality. And the soaring population means that mankind will have to choose—and soon—one of two methods for limiting this increased rate.

Either birth rates must be decreased or death rates increased, else humans will reproduce themselves to a point of standing room only. A high mortality is unlikely, so a low fertility rate such as found in western Europe gives the only answer.

Starvation, disease and wars kept mankind's ranks thinned until recently. But now man has learned to control, to a great extent, famine and disease, although a nuclear war could effectively wipe out much, or all, of the human race.

Since this is not a desirable solution to the world's population problem, experts advocate birth control as the only humane

solution. They point out that the results of human reproduction are no longer the concern of only two individuals, or even of the country where they are citizens.

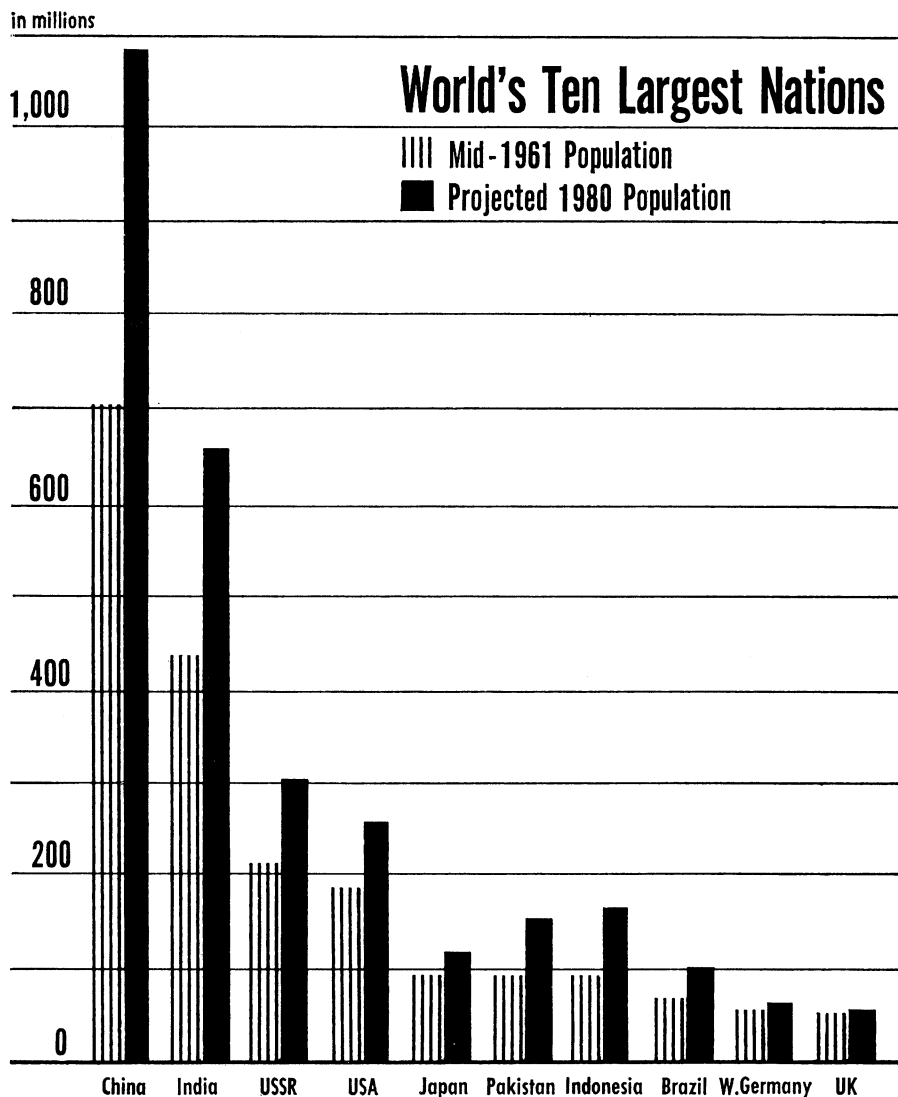
Dr. Harold F. Dorn of the National Institutes of Health, Bethesda, Md., notes that the rate of human reproduction in any part of the globe may directly or indirectly affect the health and welfare of the rest of the human race.

It is in this sense that there is a world population problem, since political bound-

aries keep the earth from being "one world." And it is precisely those countries where the living standards are lowest that the death rates have dropped most spectacularly without a corresponding drop in the birth rate, leading to a population increase requiring all of that country's resources just to stay even.

During the past ten years, six out of every ten persons added to the population of the world live in Asia; another two out of every ten live in Latin America and Africa. These figures suggest that a continuation of the break-up in the pattern of world domination by western Europeans is inevitable, with a shift in the center of power toward the heavily populated regions.

One solution to overpopulation sometimes



**WORLD'S BIGGEST BOOM: PEOPLE**—The world's ten largest nations will add more than one billion persons to earth's total population by 1980, as shown in this Population Reference Bureau diagram. Feeding, clothing and housing this tremendous number is second only to nuclear war as mankind's most pressing problem.

suggested is to send some of the world's millions off to colonize the planets. However, the cost per person of such colonizing makes this method very unrealistic, even if all the solar system's planets were inhabitable, which is most unlikely.

The Soviet Union and the United States are the third and fourth largest nations on earth, China and India being the two largest. Population characteristics of Russia and the U.S. are surprisingly alike: birth and death rates are almost the same, illiteracy is virtually non-existent in both countries, and each is now experiencing large-scale moves from rural to urban areas, according to Robert C. Cook, president of the Population Reference Bureau in Washington, D. C.

Another factor in the growing population due to declining death rates, particularly infant mortality, is that both men and women now have a much higher chance of surviving through their entire reproductive period. Two out of three babies born in the world today, despite malnutrition, will live to have children of their own.

Population experts hope that if the couples to whom these children are born understand that their high fertility is one of the greatest obstacles to achieving better standards of living, they will regulate their births.

India is making valiant efforts to cut down on its high birth rate, with the announced aim of reducing it by half. Birth control clinics help in planning families and give free contraceptives. Thousands of men have been paid \$5.00 to be sterilized.

However, whether in India or China or Latin America—or in Ceylon where a post-war anti-malaria campaign increased the population of 758,000 to 9,612,000 in only 13 years—the most effective way to reduce births is a readily available, cheap oral contraceptive.

Such a pill should be as inexpensive as aspirin, and equally easy to obtain.

One high Indian official has pointed out that a nuclear bomb can only destroy a person's body. The population explosion can do much worse—it can destroy the soul and degrade the dignity of a human being.

• Science News Letter, 82:162 September 8, 1962

## Questions

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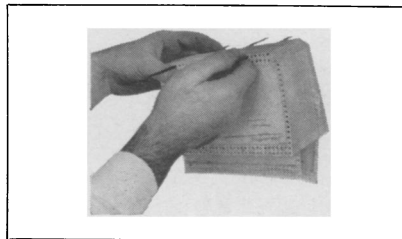
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*Photographs:* Cover, National Science Foundation; p. 155, University of Michigan; p. 157, Westinghouse; p. 159, University of North Carolina; p. 162, Population Reference Bureau; p. 168 (top), Honeywell Regulator Company; p. 168 (bottom), E. P. Haddon, U.S. Fish and Wildlife Service.

# Have you Automated Your Data Files?

or are you operating with eighteenth century abstracting and filing techniques in your research work? Partly because all other data recovery systems have been costly and complex scientists have shied away from changing the methods by which they index and cross correlate their personal files.

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