The Slowing Growth of World Population

Birth rates are falling, but deaths from starvation are also playing a role

BY JOHN H. DOUGLAS

The official United Nations projections of world population show the number of people in the world doubling and redoubling again from the present 4 billion to somewhere between 10 and 16 billion, before leveling off. Lester R. Brown of the Worldwatch Institute believes, however, that even the first doubling will probably not take place—birth rates are declining much faster than expected, and the effects of food shortages can already be seen in rising death rates in the poorest countries

In just five years, the annual rate of world population growth has fallen from 1.9 percent to 1.64 percent. While at first this may not seem like a large change, it is a drop of 13.7 percent in rate of growth. The slower growth rate translates into 4.9 million fewer people added each year. Also, at 1.9 percent annual growth rate, population would have doubled in 36 years; at 1.64 percent, population will take 42 years to double.

Slower population growth should mean that the world will have more time to solve pressing problems such as food supply and environmental deterioration. Doomsayers have almost gleefully conjured up pictures of wall-to-wall people struggling for the last remaining natural resources, and the present trend of events seems to promise that those nightmares, at least, will not come true. But a closer look at the data suggests an equally sobering vision: that time has already run out for millions of people.

When one thinks of the so-called "developing" countries, what usually comes to mind is economic development—what is the per capita income? For years conventional wisdom has held that to persuade poor farmers in remote areas to practice family planning, one would first have to raise their standard of living. This view now appears too simplistic; factors other than just net income may play much more important roles in individual cases.

Perhaps a better way of viewing development is in terms of organization rather than riches. Certainly a family on the brink of starvation will be a poor candidate for family planning counseling—other matters are more immediate. But for families above bare subsistence, such considerations as whether a society is organized enough to ensure a measure of

security, to provide the means for birth control, and to offer expanded opportunities for women may be more important than income in terms of promoting a successful family planning program.

At one extreme of organizational development are several countries of Europe, which not surprisingly have already reached population stability. East and West Germany, Luxembourg and Austria all have small negative annual rates of population change, with Belgium and the United Kingdom expected to achieve zero population growth sometime this year. By 1985 more than a billion people will live in countries with stable populations.

A variety of causes play a role in these declines. East Germany was the first country to achieve zero population growth, partly because of the relatively high educational and employment opportunities for women. In West Germany, the decline seems to reflect changing attitudes toward childbearing. A housing shortage

in the Soviet Union has discouraged many young couples from starting their families early. And in some Eastern European countries, former official encouragement of large families is declining in the face of scarcities in food and other consumer goods.

At the other end of the development spectrum, however, lack of adequate resources and organization is having tragic effects. The average price of wheat traded in world markets is now roughly twice what it was in the decade before 1971. Food "reserves" are hardly more than what is already in the trading "pipeline." As a result, the people on the top of the development scale are paying more for their food, while the people at the bottom—in Brown's phrase—"are being pushed off."

Here the statistics become harder to obtain. Less developed countries often have few resources to devote to census taking. But from what figures do exist, a clear pattern emerges: Among the



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people of the poorest countries, distribution of food is very irregular, and even an acre of land of one's own can make the difference between life and death.

Some of the best evidence of this effect comes from the Johns Hopkins School of Hygiene and Public Health, in a study of the death rate in the Companigani district of Bangladesh. Among the quarter of the population that do not own any land, the annual death rate is 35.8 deaths per thousand people. However, among farmers with three acres or more of land, the death rate is only about a third as much, 12.2 deaths per thousand people. This rate is only slightly higher than that for most developed countries.

Other studies in Bangladesh show clearly that hunger is responsible for the increased number of deaths, and that the victims are "the very young and the very old." According to data gathered by the International Cholera Research Laboratory in the province of Matlab Bazar, the annual death rate held fairly stable around 15 per thousand until late 1971 and early 1972, when it jumped to over 21. An analysis of the data by the Ford Foundation showed that the number of lives lost then in the war for independence was quite small compared to those claimed by hunger. Last year the rate rose nearly as high again, because of crop failures, and the best guess is that 333,000 people in the country may have died as a result of malnutrition. Per capita cereal consumption in Matlab Bazar has been as low as 12 ounces a day.

The results of the 1972 food disaster can now be reasonably estimated in other countries as well. That was the year when world per capita grain production began to fall, after nearly two decades of steady increase, and when the Soviet Union chose to make up for its own crop failures by importing huge quantities of wheat rather than by the traditional practice of belt-tightening. These events decreased the amount of food available for famine relief, and in India alone more than a million people probably died as a result.

In between the extremes of great wealth and dire poverty, the importance of organizational development is most clear. The outstanding case is China, which Brown says has just experienced the most precipitous decline in birth rate of any country in history. Although China contains roughly one-fifth of the world's people, the exact number and their rate of reproduction are still state secrets. Estimates vary, but Worldwatch data show the population standing at around 823 million, with an annual growth rate of 1.1 percent-well below the world average. Brown says that this accomplishment was made possible by combining social services, to satisfy basic needs, with a family planning program that is perhaps the most comprehensive and aggressive in the world. Organization, not wealth, was the key.

Virtually every other country in East Asia also has an effective national family planning program. The success of these programs further supports the idea that full economic development is not needed before poor people adopt family planning. Per capita income in the region is still far below that of Western industrialized

> World population growth by major geographical region. 1970 and 1975. Crude birth and death rates refer to the number of births and deaths per thousand people per year. Population estimates for individual countries may vary by as much as 10 percent, with Worldwatch usually taking a conservative position.

countries, but the birth rate is nevertheless much closer to the rate in Europe and North America than to that in Latin America or Africa.

In other areas of the Third World, progress remains spotty. Mexico is adding more people to its population than are the United States and Canada combined, but the Mexican government has just recently reversed its early opposition to family planning. Death rates are still declining in many developing countries as better sanitary conditions are achieved, and the resulting increase in life expectancy frequently offsets modest gains in birth control. As energy and other natural resources dwindle, however, more and more countries are becoming aware of the choice they must make between population increases and standard of living. Even Canada has shown concern recently over the possible effects of domestic population growth on its energy supplies and food exports.

As pressures mount, measures to counter them become more harsh. In just five years the proportion of people living in countries where abortion is legal has jumped from a little over one third of the world to nearly two-thirds. "Few social changes have ever swept the world so quickly," says Brown. Male sterilization has also increased and the Indian government has sanctioned compulsory sterilization as a last resort. Already the Indian state of Maharashtra has passed a law requiring compulsory sterilization of all males with three or more living children and compulsory abortion of any pregnancy that would result in a fourth child. Although enforcement has been a problem, other states are considering similar actions.

Brown lists five tactics governments can use effectively to slow population growth: provision of family planning services, satisfaction of basic social needs, expansion of education to all social groups, offering alternative careers to motherhood, and shaping economic and social policies to encourage small families. That these tactics have proven more successful in lowering birth rates than previously expected is perhaps the most hopeful conclusion of the report. But the specter of increasing starvation among the poorest of the poor remains.

Brown finally concludes: "The only real choice governments have before them is not whether population growth will slow, but how.'

This article is largely based on a recent study by Lester R. Brown of the Worldwatch Institute, an independent research organization that focuses on global problems. Copies of the report, World Population Trends: Signs of Hope, Signs of Stress, can be obtained by sending \$2.00 to Worldwatch Institute, 1776 Massachusetts Ave. N.W., Washington, D.C. 20036.

Region	Crude Birth Rate	Crude Death Rate	Natural Increase (Percent)	Population (Millions)	Natural Increase (Millions
North America					
1970	18.2	9.2	.90	226	2.04
1975	14.8	8.8	.60	236	1.42
Western Europe					
1970	16.2	10.6	.56	333	1.89
1975	13.7	10.5	.32	343	1.12
Eastern Europe					
1970	17.4	9.1	.84	368	3.14
1975	18.0	9.4	.86	384	3.31
East Asia					
1970	30.6	12.1	1.85	941	17.43
1975	19.6	7.8	1.18	1005	11.91
Southeast Asia					
1970	42.1	15.5	2.66	278	7.40
1975	38.6	15.3	2.33	317	7.37
South Asia					
1970	40.8	15.9	2.48	709	17.57
1975	37.1	15.8	2.13	791	16.89
Middle East					
1970	44.3	15.5	2.88	136	3.91
1975	41.7	14.5	2.72	155	4.22
Africa					
1970	47.1	21.0	2.61	312	8.16
1975	47.1	20.0	2.71	355	9.65
Latin America					
1970	37.4	9.7	2.77	276	7.64
1975	35.5	9.0	2.65	317	8.39
Oceania					
1970	20.9	9.0	1.19	15	.18
1975	17.4	8.1	.93	17	.16
World					
1970	32.2	13.2	1.90	3594	69.36
1975	28.3	11.9	1.64	3920	64.44

Source: This table is constructed from country data published by the United Nations and the U.S. Bureau of the Census, except for those countries where more recent data are available from published studies or national surveys.

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