The Population Problem---Standing Room Only?

Lawrence MacK. Buffet '63

In less than fifty years, unless there is a catastrophe or a change in population trends, the world's population will have grown to six billion persons. In 1957-58, the earth's population grew by 90 million —as much as the entire population of Japan and twice that of France; in the next two years a further increase of 100 million is expected. By 1962 the world will have three billion people, by 1977 four billion, five billion by 1990 and six billion people by 2000 A.D. At the present pace then, the present world population of 2,800,000,000 people will be doubled before the end of the century.

These facts on world population trends are contained in "The Future of World Population"—a comprehensive study of the problem recently published by the United Nations. At present, according to this report—three babies are born and two people die every second. In the next twenty years, four births and two deaths will occur per second and there are thirty million seconds per year. "It took 200,000 years for the world's population to reach 2,500 million; now it will take only thirty years to add another 2,000 million."

At the present rate of growth, the report concludes, in six hundred years—little more than the time since the discovery of the New World—each human being will have only one square meter to live on. "It goes without saying that this can never take place; something will happen to prevent it." As Sir Charles Darwin the grandson of Charles Darwin expressed it, the time will come when there will be "standing room only" signs all over the earth.

WHY THIS GREAT INCREASE?

I. The key to this unprecedented human multiplication is not, as might be expected, a higher birth rate, but a dramatic drop in the death rate. The mortality rate is dropping everywhere, especially in the underdeveloped countries, where most of the world's people live. In many countries the rate has declined by twenty-five percent during the past twenty years and in some countries, by as much as fifty percent. For example, in Ceylon, the death rate dropped in a single year by 9.8/1000; in China, 8.0; in Costa Rica, 9.6; in Hong Kong 7.5; in Mexico, 12.1; in Puerto Rico. 7.0; and in Trinidad and Tobago, 9.3. In India, too, mortality has been substantially reduced. Most infant deaths still seen are primarily due to congenital defects, pneumonia and birth injuries. Cancer leads as the principal cause of death of both male and female above twenty-five years of age, followed by accidents, tuberculosis and heart disease.

Tuberculosis as a death cause has registered notable decreases—the death rate in 1956 being 5/1000 in Denmark to 108/1000 in Hong Kong compared with 11/1000 in Denmark to 320/1000 in 1952. However, it is far from beyond the serious stage yet, but there is no reason to assume that just as dramatic a reduction in the death rate in this disease will not occur in the near future.

Malaria, once the big killer, is much reduced in incidence. According to the World Health Organization, at least threequarters of mankind live in the malaria zone. However, it is still a scourge in the Cape Verde Islands, Dominican Republic, Guatemala and Mexico. Up to 1948, 300 million persons were attacked by malaria each year, and three million persons died. Today these figures have been cut by thirty percent. The current widespread campaign of the United Nations, in co-operation with the local governments concerned, aims to eradicate the disease by 1967. Imagine the effect on the population expansion if this disease is irradicated as hoped for, especially since the malaria belt is the most densely populated region of the earth.

II. If the birth rates dropped as fast as the death rates, the population growth would not be so rapid. Latin America, with a high birth rate and a comparatively low death rate, has the world's fastest growing figure of 1.6%. Asia with its huge number of people, has the greatest number of population—2.5% as compared to the world new arrivals—twenty-four million—one half of the world gain in 1957. Two out of every three births and almost three out of four deaths are in Asia.

In 1957, the birth rates of most European countries ranged between 12-22/1000. In the U.S.S.R., Canada, United States, Argentina, Australia and New Zealand, the birth rates were higher: 23-28/1000. A decline in marriage rates was noted in the United States in 1957-1958, and countries such as Poland, Portugal, Roumania and Yugoslavia—with birth rates above 22/1000 have shown some decline in recent years. Japan's birth rate which dropped from 34.3 in 1947 to 17.2 in 1957 shows signs of leveling out. However, this optimistic trend does not hold true for the most heavily populated areas of the world—Asia and Africa. In China, large families are encouraged on the strength of the Marxist statement that "an increase in population is always an increase in capital", and in spite of a government sponsored plan of birth control in India, the population estimates for that country are forty-six million behind the actual value.

A consequence of this increase in the birth rate and decrease in death rate is the prevalence of young populations—with the ensuing economic difficulties. Most lives saved by modern science and medicine are among infants and children. Sweden has the world's lowest infant mortality rate of 1.7% of births followed by Iceland, Channel Islands, Netherlands, Switzerland, Denmark, Finland, England and New Zealand. Strangely enough, the United States is in twentieth place with 2.6%.

There are two types of populations growing up because of this. In the first block of Africa, Latin America and Asia, 40%or more of the population is made up of children under the age of fifteen, and 6%over sixty years of age. In North America, Europe, Oceania—the second block—30%of the population is under the age of fifteen and 11% over sixty years of age. The U.S.S.R. is half way between these. In 1975, the second block will have 275 million children compared with 1,100 million in the first block. The number of aged people will be more than 150 million in the first block. Yet the technologically advanced areas of this world contain slightly more than one-third of the world's population and this share may drop to less than one-quarter by the end of the century.

HAVE AND HAVE NOTS.

What is the earth's maximum population carrying capacity? How many people can live on the earth's resources?

Many attempts have been made to answer this question. However, it cannot be answered through scientific logic alone, for man's eventual adjustment to new situations cannot be predicted.

Maurice Pale, Executive Director of the United Nations Children's Fund (UNICEF) expressing his personal view on the questions posed by the future increase in population, said that the problem should be approached with intelligence, determination and confidence. "The greater the value attached to life, the more educated people become, the more aware they are that a life from the moment of conception should have at least a chance to strive for health and happiness, the better are the chances that the population problem will be solved." This is the heart of the whole matter. Certainly many people can subsist in this world if the population were much greater than it is now, but that is not what we are striving for as human beings. The world must be a place where "human" beings may flourish to devlop socially as well as economically and a heavy population stifles this—individuality varies inversely with population numbers.

Estimates of the world's carrying capacity, may have to be revised upward in view of recent scientific progress: vast unused resources of vegetable matter in the sea; the possible use of solar energy; the likelihood that atomic energy will become widely accepted as a source of energy in the future and other scientific discoveries may yield surprising results in the use of nature's gifts. However, with the advance of medical science, the population increase may be speeded up as more lives are saved. But whether the number of human beings able to live on the earth's resources depends on technological progress alone is doubtful.

Elaborate techniques in the intensive utilization of resources depend to an ever increasing extent on a specialization of human activities which would require a high degree of "social organization". This, in turn, would require individual discipline and restraint, things which human beings can scarcely tolerate beyond a certain point. Moreover, a major disruption of the social fabric which would have to occur to bring about the adjustment could cancel many of the gains of scientific progress.

More disturbing than the actual population quantity itself is the fact that this change, if it is to be successful, must come about in forty years—by the year 2000 no further in the future than the year 1920 is in the past.

As stated before, the technologically advced areas of the world contain slightly more than one-third of the population of the world. This share may drop to less than one-quarter by the end of the century. The areas least able to support a large population will have the largest concentration of human beings.

How will these population changes affect economic development? Relative economic conditions in different parts of the world will change, and it is possible that the gulf between the living standards of the two areas may be reduced; it is also possible that it may widen. Today there are great tracts of land still unworked. The Amazon Basin of Brazil contains one-twentieth of the land surface of the world but still is virgin soil. Similarily in Ethiopia and the Phillipines, there are large tracts of fertile land which are wild jungle. In the United States itself, because of its surplus farm production, there are millions of acres of fertile land lying fallow. Even without this new land, the world's food production could be vastly increased by the use of irrigation, insecticides, better seeds, etc. For example, the fertile soil of Egypt will be doubled with the water gained by irrigation from the Aswan Dam. The British economist, Colin Clark, feels that present agricultural techniques would support twenty-eight billion, instead of the present two and one-half billion at a European level of diet, if they were world-wide.

However, one is dealing with human beings, China, by means of "communes" tried to increase the yield of her farms but met with violent opposition from both within and without the country, on the basis that it was inhumane even if it gave many people a belly full of food for the first time in their lives. In Uganda, tribesmen from the overpopulated hills were settled in the lush lowland by the government, but returned to the hills when faced with their first adverse conditions. In Bolivia, the army must be called in to harvest the sugar crops in the lush valleys, yet one-third of the population subsists in the Andes. This is the population problem—not necessarily the numerical increase in population per se. Because these underdeveloped countries are increasing in population so quickly, the chances of technical advances catching up, let alone getting ahead of the population, are slim. Thus if the population of the world could be evenly distributed throughout the world and if everyone worked his share, much of this problem would be diminished; but as long as there are human beings this is not going to exist. As expressed by Nehru indirectly—overpopulation means too many poor, not too many people. The yearly increase rate of the population of India is almost the same as that of the United States, yet in the United States there is no worry of overpopulation or food shortage, while in India that is the chronic worry.

All population forcasts, of course, are subject to uncertainties and to adjustments in the light of new knowledge. Nevertheless, it is clear that the population of the world is multiplying at an unparalleled rate; this expansion, moreover, has probably not reached its peak. The fundamental difference of opinion over the problem is between those who are confident in man's ability to master the problem and those who believe otherwise. However, the universal view was expressed by Winfried Bolls when he said, "We have no time to lose. If we are unable to master the economic and sociological challenge which confronts us, we will be heading for catastrophe".

List of Advertisers

Charles E. Frosst & Co Inside Front Cover
Charles E. Frosst & Co. 2
Delfen
Sun Life of Canada
Dalhousie University 4
Mitchell Printing Service Ltd. 4
Smith, Kline, French Corp 5
J. F. Hartz Co. Ltd 11
John Wyeth & Brother (Canada) Limited
Canadian Premier Life Insurance Company
R.C.A.F
Ryerson Press
Wood Motors
Diana Sweets
Students' Medical Book Store
Cow & Gate (Can.) Ltd Inside Back Cover
CIBAOutside Back Cover