

## Editorial

# Nutrition, Agriculture, Foreign Aid and the Population Problem

MAN once lived in "savage harmony" with his environment, but he is now in a position of control which he may use for good or ill. Until recently, he has not had a profound ill effect upon the biological give and take ("balance of Nature" or ecology) of his living environment, although large areas long devoted to agriculture have lost soil and fertility and other areas have been denuded of plants and trees making deserts of former lands of plenty.<sup>1</sup> So much land has remained untouched, however, that disturbances in the "balance of Nature" have been usually small. At least man himself seemed little disturbed. Now, however, things are different. Man is rapidly influencing and changing his biological environment, often to his own detriment. Several reasons for these changes come to mind, the most important of which is the exponentially expanding population. First, however, some factors other than population increase may be noted.

The rising standard of living already evident in many nations and demanded by others, together with urbanization, road building and industrialization as well as the need for more and better agriculture are changing Nature's balance. Forests are cut down, marshes filled in and large tracts of land given over to living, traveling and producing more and richer food.

Air and water are polluted, often with harm to fish. The need for and control of water for man's use is likewise changing the landscape by dams, flood controls and irrigation projects, and attempts to supply the vast and increasing water needs of our cities. Bradley estimates that the United States will suffer from water shortage before the year 2000.<sup>2</sup> In California, the water supply is already critical. The need for ocean water made sweet has led already to the development of desalinization plants. Atomic waste disposal is a problem in some land and sea areas, and promises to grow rapidly. The use of pesticides to permit man to feed himself is having an effect upon the "balance of Nature," brought to the fore, although probably overstated, by Rachel Carson in her best-seller "Silent Spring." Thus, even were today's population to remain stable, man is crowding in on Nature. He must learn to use his intellect and knowledge to the fullest to avoid destroying his environment and with it himself.

With an "exploding" population, however, these problems are magnified to an alarming degree. The medium estimate of the present world population doubling in about thirty-five years and then doubling again and again in ever shorter periods would seem to make impossible the planning for sufficient food, water and space.<sup>3</sup>



Those developing countries which are even now overpopulated (most of them) already feel the pinch, and the aid we (the "developed" countries) are able to supply frequently cannot keep ahead of the population growth.<sup>4</sup> James Reston has put this matter clearly<sup>5</sup> and he quotes Eugene R. Black, renowned economist: "I must be blunt, population growth threatens to nullify all our efforts to raise living standards in many of the poorer countries. We are coming to a situation in which an optimist will be the man who thinks that present living standards can be maintained. . . ." Condliffe<sup>6</sup> has similarly addressed himself to this problem. The most rapid increase in population is to be expected in the technically underdeveloped countries. It cannot be expected that industrialization will slow this down and, in fact, industrialization and increased food production will probably be less than the amount needed for the added population, thus widening the gap between the industrialized and subsistence level countries. The same phenomenon has been well described by the United Nations Food and Agriculture Organization:<sup>7</sup> "It is a tragic paradox that as the industrial countries have been moving steadily toward stabilization of population growth, the far more populous and relatively underdeveloped agrarian countries have been experiencing a rapid acceleration in population growth. While the demographically stable industrial nations are moving toward higher economic levels, the demographically unstable two-thirds of the human race in the agrarian countries are barely able to make any improvement in their marginal levels of existence." This publication adds: "In the developed countries, which are already enjoying adequate average levels of nutrition, population is expected to increase 28 per cent over the 1958 level by 1980. On the other hand, the population of the underdeveloped countries as a group is expected to increase by 56 per cent." Moreover, the kind of food we now send as foreign aid is dependent upon our surpluses rather than upon the nutritional needs of the recipients. These nutritional needs are, in fact, frequently unknown by the branches of government responsible for shipping food abroad. Thus, the

application of present nutrition knowledge to world food problems could help in their solution. Expanding research and knowledge of nutrition will certainly make it theoretically possible for man to achieve "freedom from hunger" and from malnutrition, providing he does not destroy and overpopulate his environment.

The ultimate control of the world's population is certainly not now in sight. Ethnical, religious, cultural and racial considerations will need time to work out. At present, practical, reliable means of fertility and birth control are not available, even if it were possible to get people to use them. Even more important, man has little knowledge of how and where to apply such controls, or what effective control will do to the evolution of man.<sup>8</sup> These things can be learned, however, and must be, soon. A large devotion of time, energy, experiment and cerebration is needed.

In the past war, pestilence and famine have been the controlling factors in population growth. Pestilence is rapidly being controlled, although whether sufficiently effective means will be available to control epidemics when there is "standing room only" on the earth may be doubted. With proper agriculture, conservation of land and of other biological resources, and free exchange between the nations, man could now feed himself. Current knowledge of nutrition indicates that he could probably feed himself well, if such knowledge were applied. The results of overpopulation are important causes of war, and war has been a simple, sure and quick, if disastrous, means of population control. With atomic weapons it would be catastrophic. If sufficient food and water were available for all, the banning of war would have some chance of success. With men, cities and nations crowded together and underfed, war seems inevitable. As Whaley<sup>9</sup> says: "Among the underlying causes of war, no factor is of importance nearly equal to that of the relation of a population to the productivity of its lands." Is man wise enough now to proceed toward population control before famine persuades him, or pestilence and an atomic war do it for him? The "developed" countries cannot afford to remain complacent much longer.



No one can be blind to these problems, but the need for their solution falls particularly upon those with knowledge and concern about foods and nutrition. Nations, most of all our own, must use, expand and integrate knowledge in such diverse fields as fertility, agricultural economics, ecology (particularly of man and his environment), foods and nutrition. The Interdepartmental Committee on Nutrition for National Defense has had eight years' experience in this field.<sup>10</sup> Its activities need to be expanded greatly to help in the coordination of the Food for Peace program, the Agency for International Development and others.

Many individuals and organizations in our country and elsewhere have expressed these and similar views. The National Academy of Sciences, in a recent report "The Growth of World Population"<sup>11</sup> by a committee of the Academy under the leadership of Dr. George Kistiakowsky, has urged greatly increased spending by our government in support of training and research relating to population and to birth and fertility control, although little mention of nutrition is made. The Ford Foundation is currently increasing its financial support of research in fertility and reproductive biology here and abroad. The United Nations is prepared to give technical assistance in population study to governments requesting it, a move now supported by the United States.<sup>12</sup> Several countries have offered similar assistance to underdeveloped countries, the program of Sweden being particularly ambitious.<sup>13</sup> There seems to be hope that some decrease may occur in the birth rate over the next decades, but the increase in population will continue so that it is necessary to use every means possible to increase food production, especially in the less well developed, agrarian countries. This involves the use of more land for agriculture (often requiring irrigation), improving the varieties of crops for improved yields and better resistance to disease, better soil management and fertility, control of plant pests and diseases, mechanization of agriculture (production, storage and transportation) where feasible, and the use of other food sources, e.g., fish.

Even if the present crisis is met in some measure, eventual stabilization of the world's population is necessary so that man can be free from hunger and want, and be free in spirit. The opportunity for each individual to develop his capabilities to the utmost is impossible if he is hungry, underclothed and crowded. "Population stabilization is the ultimate consequence of any morality which places weight on the well being productivity and dignity of each individual human being."<sup>11</sup>

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