

AMERICA AND WORLD HUNGER

by Nick Eberstadt

The success of American agriculture is a crucial factor in supplying the world's food needs. The United States exports more grain than Latin America and sub-Saharan Africa together manage to produce, and it holds about half of the world's total grain reserves. Indeed, each year American farms account for roughly half the world's exports of grain and soybeans.

Opinion polls show that the American public consistently gives more support to "combating world hunger" than to most other U.S. foreign policy goals. Americans told the pollsters that they paid more attention to the 1974 World Food Conference than to the 1974 Ford-Brezhnev arms control meeting at Vladivostok. Since 1954, the United States has followed through on this commitment with over \$30 billion in outright gifts of food or long-term loans for food purchases, besides increasing its regular food exports. And American citizens have organized or financed most of the world's efforts to reduce hunger in the poorer nations.

Yet, despite three decades of such efforts, many authorities tell us that the number of desperately hungry people in the world is increasing. Estimates by the UN's Food and Agriculture Organization (FAO) suggest that about half a billion people in the less developed countries (excluding China) now suffer from malnutrition so acute that they would probably be hospitalized in Europe or the United States. The World Bank reckons that close to three-fifths of the families in the 90 poorest non-communist nations—which would be about 1½ billion people—do not get enough food. Based on a UN report, Robert McNamara, the bank's president until this summer, has claimed that "more than 30 million children under the age of five died of starvation" in 1978 alone.¹

Is world hunger really that severe? Probably not. The estimate of 30 million starvation deaths, for example, is flatly wrong. No credible estimate of the annual number of child deaths due to all causes is higher than 17 million, and 15 million is probably the most reasonable figure. Even if hunger were

completely eliminated, perhaps more than half of these tragic deaths would still occur as a result of accidents, disease, and other causes. The figure McNamara quoted, then, is about four times too high.*

The whole debate over world hunger—and how America can help to end it—is badly distorted by the lack of reliable statistics. In their zeal, many specialists on hunger have employed faulty data and shrill, headline-catching rhetoric. The problem is serious enough already; exaggeration serves only to make it seem less manageable and more hopeless than it is.

In a 1950 *Scientific American* article, for example, the FAO's director general, Lord Boyd-Orr, made a startling assertion: "A lifetime of malnutrition and actual hunger is the lot of at least two-thirds of mankind." Unfortunately, it later became apparent that Lord Boyd-Orr had made a mistake—he had reached his conclusion by looking at the wrong column of statistics.² Although this was pointed out, it was never corrected or even officially acknowledged. During the more than three decades since that gaffe, the FAO has done little to improve its reputation for attention to accuracy. In 1974, for example, an unexplained change in methodology raised the FAO's estimate of the incidence of serious hunger from exactly 20 percent of the poor world's population to exactly 25 percent, just in time for the World Food Conference in Rome.

For its part, the World Bank measures the extent of hunger using a formula that compares individuals' caloric intakes against a fixed standard. That's how it reached its conclusion that three-fifths of the poor world lives under the shadow of "caloric deficits"—malnutrition. Upon closer inspection, however, the numbers this formula churns out prove useless. In Taiwan, for example, 48 percent of the population would seem to be malnourished; in Hong Kong, 46 percent.³ This sounds grave indeed, until one learns that the average life expectancy in both places is over 72 years—about the same as in Finland or Austria. The World Bank overlooks the fact that human food needs vary widely; many people can live quite well on much less than the bank's standard.

*Without discounting the plight of the hungry, it must be said that many of the claims about the side effects of less-than-severe malnutrition are also false. Fertility, for example, is basically unaffected by nutrition unless women are beset by real starvation. As for the somewhat condescending claim that mental ability is impaired, it has been shown that every important experiment "proving" the connection between brain damage and mild or moderate malnutrition was significantly flawed. See Rose Frisch, "Does Malnutrition Cause Permanent Mental Retardation in Human Beings?" *Psychiatrico, Neurologia, Nethochirurgia*, no. 74, 1971. On fertility, see John Bongaarts, "Does Malnutrition Affect Fecundity? A Summary of Evidence," *Science*, May, 9, 1980.

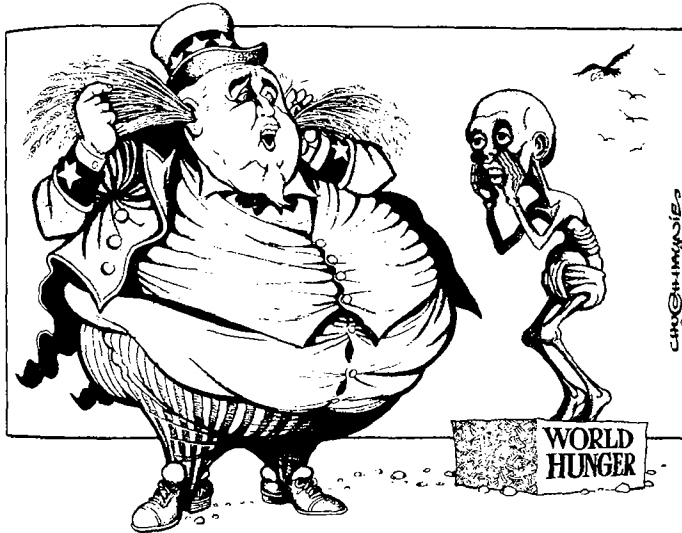
How can we get a meaningful impression of the dimensions of world hunger? We might start by looking at the results of eating patterns. Anthropometric tests, which compare weight to age or height, can tell us important things about the nutritional well-being of a population. Even this kind of data, unfortunately, can be easily misinterpreted if an American standard is used. One recent U.S. Agency for International Development (AID) study, for example, painted a sorry picture of Sri Lanka: By American height and weight standards, 42 percent of the nation's children were moderately or severely malnourished and less than 10 percent were "normal."⁴ If these researchers had bothered to measure life spans, however, they would have found that the average Sri Lankan can expect to live about 70 years.

Counting the Hungry

Another way to gauge hunger is to compare height and weight to death rates. Lincoln Chen, an American researcher at the Cholera Research Laboratory in Bangladesh, found that death rates for "normal," "mildly malnourished," and "moderately malnourished" children were all about the same. In fact, the rate for "normal" children was slightly higher than for their smaller and lighter playmates. But mortality rates were four to six times higher for "severely malnourished" children than for all other boys and girls.⁵ This certainly argues for concentrating our efforts first on the fraction of the world's population that is dangerously underfed.

How large is that fraction? According to a World Health Organization (WHO) survey a decade back, almost 10 million children under age five were "seriously malnourished" by anthropometric criteria.⁶ This number is far too low. It leaves out children over five and adults, which would double the total, and the hungry of mainland China, Indochina, and North Korea, possibly another 10 million people. The new number then has to be tripled at least: In many countries, of the total number of people who suffer from hunger in the course of a year, only

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A recurrent cartoon theme: "I'm sorry, . . . but you'll hafta speak up . . . I've got this darn wheat comin' out my ears!"

about one-third will be hungry at any single time. To correct for these factors and allow a margin for error, one would want to multiply the WHO estimate by a factor of about 10. This yields a current estimate of about 100 million desperately hungry people.*

Attending to 100 million people spread across perhaps 90 or 100 countries would be an enormous but manageable undertaking. More than two-thirds of these people are concentrated in mainland China, India, Bangladesh, Indonesia, Cambodia, Pakistan, Ethiopia, and Zaire.

There are signs, too, that the situation is improving. The figure of 100 million constitutes slightly more than 2 percent of the world's population, probably the lowest percentage threatened by serious hunger in recorded history. Moreover, life expectancy in the less developed countries (excluding China) has risen by more than a third in the last 30 years. In the same nations, the death rate for children under five years old (those most vulnerable to malnutrition) has dropped by nearly half since 1960.⁷

*Using an entirely different method, researcher Thomas Poleman has put this number at slightly under 70 million. See *Quantifying the Nutrition Situation in Developing Countries*, Cornell Agricultural Staff Paper No. 7933, 1979.

Why, we might well ask, are there even 100 million starving people in the world today? Is it possible, as some have suggested, that through extravagant consumption in the developed world and high population growth in the poor world, we are close to exceeding the planet's natural "limits to growth"? This is the Malthusian viewpoint, embraced most recently by the *Global 2000 Report to the President*, published in Washington last year. This sort of argument leads to the conclusion that every problem we now have is unsolvable.

This is certainly not true in the case of food, at least. The world's current food-grain (wheat, corn, barley, oats, sorghum, and rye) production alone would be enough to feed the planet's entire population and a billion people more, if it were evenly distributed. Food availability has been on the rise for a generation, as the growth in life expectancy suggests, and the increase is continuing. Since 1950, worldwide food production per capita has grown by about 40 percent, according to the U.S. Department of Agriculture (USDA).

In the poor regions of the world, FAO and USDA figures show that caloric intake per person has improved in each decade since 1950.⁸ Food imports and aid have helped to achieve this, but they do not explain it all. Domestic agriculture in the poor countries, though advancing at a slower pace than in the developed world, has still generated a 13 percent increase in grain production per capita (excluding China). Hunger in the Third World, then, is neither necessary nor inevitable.

"Ominous Food Deficits"?

Nor is there any measurable evidence that environmental limits will soon check the world's agricultural progress. If anything, agricultural resources are becoming *less scarce*. Soil erosion does indeed justify some concern. It is clear that poor farm management and overgrazing in Nepal, the Sahel, and elsewhere are degrading the soil. But as Rockefeller Foundation agronomists have shown, with improved cultivation and conservation practices, much badly abused land can be restored.⁹ Meanwhile, new land is always being opened up.

Between 1950 and 1980, the world's arable area grew by more than 20 percent, and at an even more rapid rate in the poor countries. In the decade ending in 1977, irrigated acreage around the world increased by more than 25 percent. Vast areas remain undeveloped. In South America, only 11 percent of the potentially arable land was being farmed; in Africa, only 22 percent, according to a 1967 UN study. If the tsetse fly, which

carries sleeping sickness, were to be controlled, an additional 1.7 billion acres in Africa could be devoted to agriculture, more than all the land now farmed in the United States.

Finally, the resources needed to exploit the land and increase productivity—fertilizer, pesticides, seed, and simple machinery—have all dropped in price (adjusted for inflation) over the past 30 years.¹⁰ Reckoning by supply and demand, then, these products seem more plentiful than ever.

Yet another school of critics worries not about scarcity but about abundance: Many development experts view the poor world's increasing reliance on foreign grain as a cause for alarm. Last year, the net grain imports of the less developed countries totaled nearly 70 million tons, up from about 20 million tons in 1960. In the otherwise sober study, *To Feed This World*, this is portrayed as a pattern of "ominous food deficits."^{*}

Putting Meat on the Table

Such criticism seems to assume that if a nation imports food, it can no longer feed itself or has lost its race against population growth. But this confuses biological need with economic demand. The two have nothing to do with each other. Taiwan's 18 million people purchase more American food than do Africa's 400 million; this is not because they are hungrier. It's because they have the money to buy luxury foods and because they feed American grain to their pigs and poultry. Conversely, the fact that Burundi and India *export* modest amounts of food does not mean that these nations have eliminated malnutrition.

It would also be a mistake to assume that food imports cripple less developed countries financially. The so-called developing market economies—the poor world minus OPEC, China, and the smaller communist states—spent less than 4 percent of their export revenue to import grain last year. For the 37 poorest nations in this group, the food-grain burden was higher, but even they could pay for their purchases with less than 10 percent of their exports.¹¹ By contrast, the oil bill for these poorest countries consumed 16 percent of their export revenue in 1977, up from 9 percent in 1960. To be sure, less developed countries face some serious financial problems, for a variety of reasons, and it would be a mistake to underestimate them. Nevertheless, it appears that the poor world, in general, could afford to finance even more "ominous" food deficits than it does now.

But why has food production in the Third World lagged be-

^{*} Sterling Wortman and Ralph W. Cummings, Jr., *To Feed This World: The Challenge and the Strategy*, Baltimore: Johns Hopkins, 1978.

hind demand? The answer has little to do with population growth, scarce resources, foreign exploitation, lack of native ability, or any of the factors usually cited by Western analysts. It can be explained in terms of a specific series of choices made by almost every regime in the poor world during the period of decolonization and national self-assertion after World War II.

Frustrating the Farmers

The nationalist leaders who came to power during this period differed remarkably in their ideologies. One need only compare Sukarno with Perón, Nehru, or Kwame Nkrumah to see this. On one point, however, they were united. They wanted to build powerful, "modern" state apparatus that would allow their nations, or at least their ruling classes, to deal on equal terms with Europeans and Americans. They would of course provide themselves with all the trappings of national power: airports, sports arenas, presidential palaces. But they would also rapidly build up an industrial base, even if that did not make economic sense.

That meant diverting scarce resources from the vast majority of the population that worked the land. Prices, taxes, investment, and credit were all skewed against the farmer to subsidize the build-up. These policies could be enormously influential. In India during the 1960s, for example, the government fixed the price of fertilizer so high that rice farmers had to produce four times as much rice as did their Japanese counterparts to buy a single kilogram. This was partly the result of New Delhi's decision to curb fertilizer imports, which were relatively inexpensive, and build up the domestic fertilizer industry. At the same time, many governments, India's included, imposed price ceilings on farm products to placate their city populations.

Predictably, the growth of agriculture in these countries was slowed. Overall economic growth was slowed too, as capital was diverted to less productive but more impressive uses in the industrial sector. Thus, there was less food—and less wealth with which to purchase food from other countries. The few developing nations that declined to follow city-oriented policies (e.g., Taiwan, South Korea, Malawi, the Ivory Coast) are all now in better economic shape than are their neighbors.

When the rulers of the less successful developing countries did turn their attention to agriculture, their policies often compounded their problems. When Burma took "the Burmese path to socialism" in 1962, for instance, it expelled the Indian money-lenders who had provided most of the crop loans to farmers (ad-



Thomas Malthus (1766–1834) was the first “limits to growth” theorist. He feared that population would pass the “limits of subsistence.” But Malthus later altered his views, worrying that birth control would slow population growth too much.

mittedly, at usurious rates). “Socialist agriculture does not need private encroachment,” it was declared. Largely as a result, the supply of rice available for export, which had once totaled 3 million tons per year, dropped to only 1.6 million tons in 1963.

Unfortunately, most of the developing countries have opted for centralized bureaucratic control of agriculture. What matters here is not so much the size of the bureaucracy—Taiwan employs 70 agricultural researchers for every 100,000 farmers, India only one—but how it operates. Taiwan’s bureaucracy is relatively large, but it is decentralized and devoted to research and farmer education rather than to regulation or management.

As a result of their choices, it may now make more economic sense for some developing nations to import food and export manufactured goods. With its state-of-the-art factories and low wages, India can produce a ton of steel at less than two-thirds of Bethlehem Steel’s cost, while it costs 40 percent more to grow a ton of wheat in the Punjab than in Kansas.

Eliminating the artificial burdens under which farmers in most Third World countries must operate would do much to increase domestic food output and speed overall economic growth. But if they achieved these goals, many of these countries would undoubtedly run up even greater food deficits, as consumers used their increased income to buy more meat and other high-quality foods (which happened in Taiwan).

If we look beyond "ominous food deficits" to the issues that underlie them, we see that the United States is in a position to reduce hunger in the poor world in some important ways. We cannot solve the problem alone. But we can use our predominance in the world grain market to organize an international grain reserve that protects the hungry against sudden crop failures and price hikes. At the same time, we can stabilize our erratic food aid policies to permit better planning among the recipient countries.

Through AID and our influence with the World Bank and the International Monetary Fund, we ought to be able to encourage freer, less city-oriented economic development. Finally, easing access to the American market would help some poor countries increase their manufactured exports, generating the income needed to pay for food imports. These are good opportunities. But we will not seize them or others that may arise if we are possessed by an overriding fear of food deficits and a feeling of hopelessness about alleviating world hunger.

NOTES

1. Robert S. McNamara, *Address to the Board of Governors*, Washington, D.C.: International Bank for Reconstruction and Development, 1979.
 2. Recounted in Colin Clark, *Starvation or Plenty?*, New York: Taplinger, 1970.
 3. Shlomo Reutlinger and Harold Ackerman, *The Prevalences of Caloric Deficient Diets in Developing Countries*, World Bank Working Paper No. 374, January 1980.
 4. Office of Nutrition, *Sri Lanka: Nutrition Status Survey 1976*, Washington, D.C.: Agency for International Development, 1976.
 5. Lincoln C. Chen et al., "Anthropometric Assessment of Energy-Protein Malnutrition and Subsequent Risk of Mortality among Preschool Aged Children," *American Journal of Clinical Nutrition*, August 1980.
 6. J. G. Bengoa, *World Health Organization Bulletin*, no. 4, 1974.
 7. International Bank for Reconstruction and Development, *Health: A Sector Paper*, Washington, D.C., 1980, and *World Development Report, 1980*, New York: Oxford, 1980.
 8. UN Food and Agriculture Organization, *Fourth World Survey*, Rome, 1980, and U.S. Department of Agriculture, *Global Food Assessments*, Washington, D.C., 1980.
 9. The Rockefeller Foundation, *Problems of Agriculture in Fragile Environments*, New York, 1980.
 10. Julian Simon, "Global Confusion, 1980," *The Public Interest*, Winter 1981.
 11. S. J. Barki and T. J. Goering, *A Perspective on the Foodgrain Situation in the Poorest Countries*, World Bank Working Paper No. 251, April 1977.
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