Can we produce enough food to feed 10 billion people?

by Rosa Tennenbaum

The United Nations Population Fund (UNFPA) recently released an analysis by its vice president John Bongaarts, which was published among other places in the May issue of the German monthly *Spectrum der Wissenschaft,* under the title, "Enough Food for 10 Billion People?" It is clear that there is widespread opposition among agrarian scientists to the lie that the world's agriculture cannot keep pace with world population growth. But since precisely this lie plays a key role in the plans to drastically curtail the numbers of people, which dominate the agenda for the September U.N. International Conference on Population and Development in Cairo, the Population Fund is trying to legitimize its policy of population control with this study.

The article weighs the arguments of the environmentalist apostles and their hangers-on for a stringent policy of population reduction, against the arguments of agrarian scientists that feeding the world is a political, and not an agricultural, problem. In the past three decades, thanks to extraordinary efforts, enormous gains have been achieved in crop yields, such that the supply of food has grown more rapidly than the number of inhabitants of the Earth (**Figure 1**). Even in the developing sector, the yield increases are impressive: The total harvests in the 25 years between 1965 and 1990 in the developing countries went up by an average of 117%, with the successes in Asia being particularly striking. In Africa, Ibero-America, and the Middle East, the yields increased more slowly, and the per capita food supply sank in this period. The blame for this does not lie in the fact that more people were being born, but in the debt policy of the international institutions such as the World Bank and the International Monetary Fund, both of which work closely with the United Nations. They have forced developing sector countries to pull investments out of agriculture and to export more agricultural products in order to pay off their debts. The reason for the shortages, therefore, is not the number of people, but rather the banks' debt and interest policies.

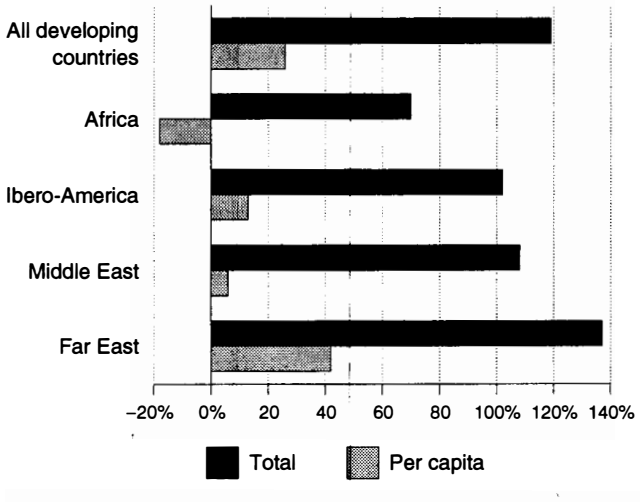
Optimists vs. pessimists

Bongaarts describes the viewpoint of the ecologists, whom he aptly labels as "pessimists." In their opinion, the catastrophe is already upon us, and Bongaarts concedes that their view is "widely circulated by the media." Their doom-saying rests exclusively on the claim that farming hurts the environment. To feed more people would mean "intensifying those very same methods of cultivation which have already caused heavy ecological damage," he writes. "The natural resources and foundations of life, already stretched by population growth to date, would simply not be able to withstand this additional burden." "Population pressure on sensitive ecosystems" is therefore incessantly harped on. Arable land risks becoming scarce, and we will see a "large part of the remaining fertile land" endangered by erosion. Even the ecologists confess that despite everything, the Green Revolution was able to multiply the yields per hectare many-fold, and that this example can always be repeated everywhere; but they counter that this would promote the use of fertilizers and pesticides, and therefore has to be rejected. The same goes for irrigation. It would certainly be possible to make broad tracts of land fertile by irrigation, the ecologists say, but that would be "too expensive." In short: Even the ecologists cannot deny that it would be possible to feed more people, but they don't want to. These folks' contempt for mankind is

FIGURE 1

Growth in world food supply has been greater than population growth

(percent change between 1965 and 1990)

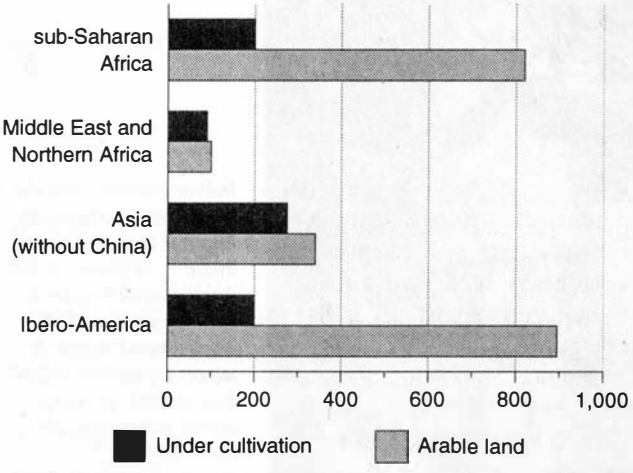


Source: FAO (1991).

FIGURE 2

Arable land, compared to farmland currently under cultivation

(millions of hectares)

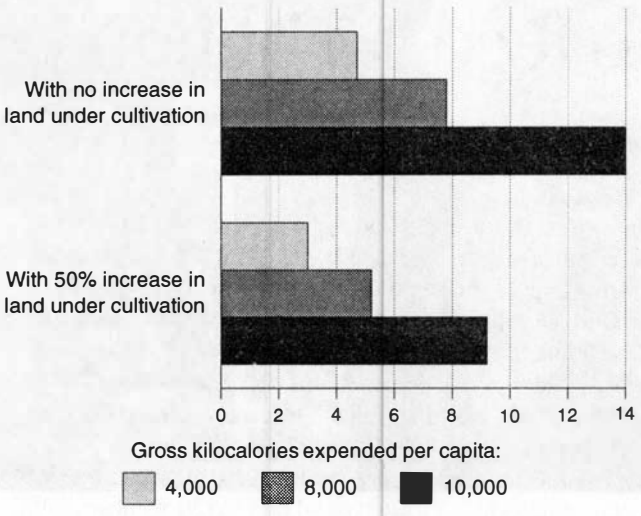


Source: Alexandratos (1988).

FIGURE 3

Crop yield that would be required to feed humanity in the year 2050

(tons of grain equivalent per hectare)



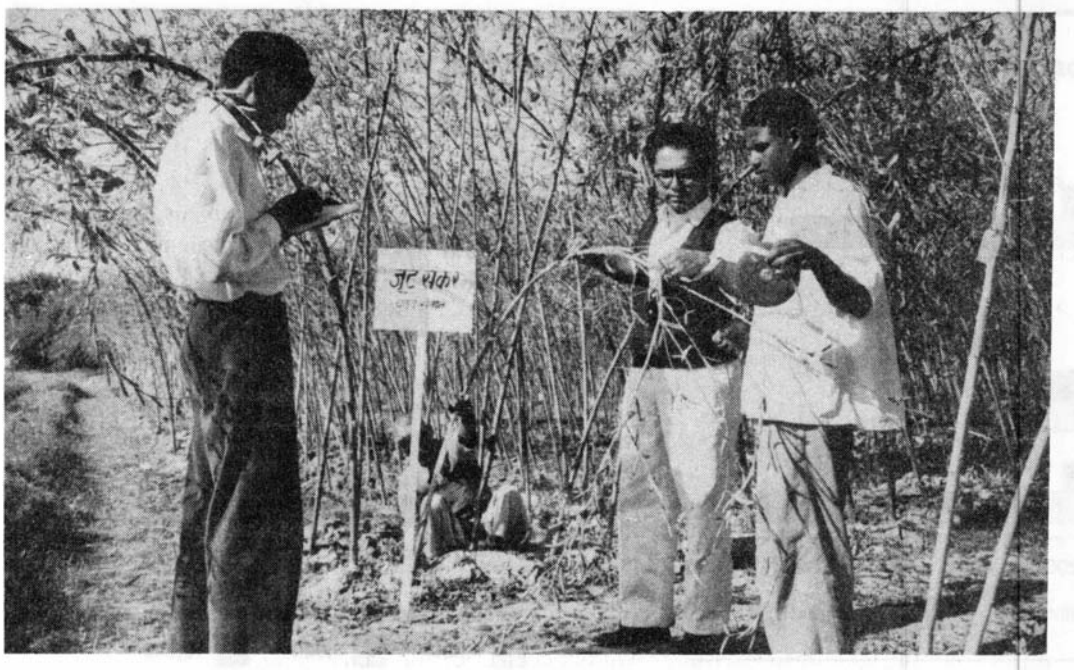
summed up in the image that Paul and Anne Ehrlich of Stanford University flaunted in their book, *The Population Explosion,* and which Bongaarts quotes: "the reshaping of the earth into a gigantic human feeding trough."

The "optimists," on the other hand, do not deny the immense problems confronting world agriculture, but they want to tackle them vigorously. Bongaarts asserts in a surprised tone, "Such optimism arises, of all things, from the extrapolation of the very same development which other researchers see as an alarming sign of a threatened catastrophe." The agrarian researchers point to the successes in improving the food supply that they have achieved in the recent past, and Bongaarts writes: "Statistics show in fact that in the developing countries, between 1965 and 1990, the average daily per capita food supply grew by 21%." Even the supply of essential proteins clearly improved. "If we follow the optimists, the global food situation could be still further improved considerably as in the last decades," admits the leader of the U.N. Population Fund.

To clinch their argument, the agrarian scientists allege that only a fraction of the arable soil has been cultivated up to now. "Almost three times today's arable and pasture lands [could] be opened up for agricultural use . . . hence, 1.4 billion hectares." The reserves of extremely fertile arable land, especially in Africa and Ibero-America are huge, as **Figure 2** shows. "But even where farmland can perhaps only be expanded to a limited extent (as in the Near East and Asia), more crops could be harvested during the year than at present. . . . All regions are capable of enhancement. Moreover, higher yields are attainable for single crops, above all in Africa and in the Middle East." Through the use of high-yield varieties, and inputs of fertilizer and pesticides, yields could be multiplied. Yet in Africa only one-fifth, in Ibero-America two-fifths, and in the Middle East something less than half is harvested, compared to Europe or North America, per unit area. These "fans of a permanent Green Revolution," as Bongaarts calls such scientists, are convinced that the cultivated land in the developing nations could be sharply increased fast, and that most developing sector countries could feed themselves in a short time, because their population density is very small as a rule.

"In order to provide 4,000 gross kilocalories daily (including what gets lost during the harvest, storage, and transport), per capita even in the year 2050 for the 8.7 billion people in the developing countries (hence for double as many people as today), agriculture has to produce 112% more," calculates Bongaarts. "For 5,000 gross kilocalories, which is slightly under the world average of 1990, an increase of 218% would be required, and for about 10,000 gross kilocalories (as in the industrial nations at that time), an increase of around 430%" (**Figure 3**). If the developing countries are self-sufficient in basic food supply and at the same time can improve the supply to their populations, then they would have to increase their crop yields sixfold. "This is certainly impossible, if no decisive breakthrough in biotechnology of food production is achieved," concludes Bongaarts.

But it *is* totally possible, as the per hectare yields which have been achieved in Europe demonstrate. And in Europe, climatic conditions do not allow several harvests per year, as there are in most developing countries.



Indian scientists test the use of atomic energy to improve the quality and quantity of plants, at the Agricultural Research Institute in New Delhi. Agricultural research makes it possible to feed a constantly growing world population, as even the U.N. Population Fund admits.

We can also "rightly assert that the worldwide food production in the next decades will rise considerably," he admits. What would be required is "a well thought-out policy, which guaranteed the supply of the necessary fertilizers and other means of production, a solid infrastructure buildup, and procuring access to the market for the producers. . . . The central question then will no longer be, how more food can be obtained, but how methods can be introduced from which a boost in food production can be expected."

All well and good: There are no objective problems which prevent us from feeding a growing world population, everything can be easily brought within our grasp. What is missing, is the political will to do it, and one would seek that in vain from the United Nations Population Fund.

An environmental catastrophe?

Bongaarts stresses ecological problems at the end of his article, since it is easy to make policy with the word "ecology." "A difficult problem is how to achieve these technological advances at ecologically sustainable costs. Here the arguments with particular weight are those which forecast environmental catstrophe." Then he dedicates a chapter to the "Effects of Global Warming." But even here, he has to admit that such an "eco-catastrophe" would have manifold positive effects on the growth of plants, lengthening the growing seasons, and so forth. Hence he has to pull in another argument: "the ecological costs." In the future, these would be added into the prices of farm products, claims Bongaarts. That would, of course, send food prices skyrocketing, he says—without any basis, since soil, water, and air have been used ever since man has existed.

But one could even "limit future price rises, if unused agricultural resources in North America and elsewhere were brought into production," says Bongaarts, thereby indirectly pointing to the importance of farmers and agricultural policymakers in the industrialized countries. Price rises would in fact have only a small effect, if agricultural production in the high-yield countries were expanded. It is well known that the exact opposite policy is followed, as the farmers in these countries and the consumers in the developing sector experience every day.

"Technically it is feasible to better supply a growing world population with food, qualitatively as well as quantitatively," concludes Bongaarts. "For many poor countries, however, the economic and ecological costs which a strong increase of production brings with it, could be absolutely untenable. . . . In any case, the tasks of the future will be easier to solve if we succeed in slowing down the growth of the human race," says the author in his political, and not scientific summary, wherein he lines up with the "pessimists," those who promote a policy of depopulating the Third World. There are no valid scientific or economically based arguments against the growth of world population; rather, there are only ideological and political ones. And they can be defeated.

And thus, even a publication of the U.N. Population Fund, to which the most emphatic advocates of the lie of overpopulation belong, has proven that a constantly growing world population not only can be fed, but that even a high level of nutrition can be assured. It also proves that those who want to push the drastic reduction of world population, for example at the Cairo conference, want to do it exclusively on political and racialist grounds. They thus willingly line up with those who supply grist to the mill of the greatest genocide in history.