

# Current Facts Future Needs

## The World Food Situation as Seen by FAO

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### Abstract

*A detailed current review with assessment of future needs which draws on extensive FAO studies and assessments prior to and after the World Food Conference. It indicates the need for mobilization of human resources, or all the investments in agricultural inputs, development and research could lose their potential effectiveness.*

To assemble a set of facts that permit a reasonably balanced assessment of the current world food situation would be difficult enough if the subject-matter had remained well obscured from media and public attention as it was for so many years. To attempt such an assessment today, when a sudden upsurge of concern has launched a landslide of research and comment, and when new national and international initiatives to address the problem follow in swift succession, seems little short of foolhardy.

As with the Scriptures, available data on world food developments may be quoted for a variety of purposes. One might point out, for instance, that since the end of World War II, the long-term average annual increase of world food production has exceeded the rate of world population growth, providing a margin for increased per capita supplies at a rate of nearly one percent per year through the two decades 1952-1972. One might add that average dietary energy supplies available through the 1969-1971 period have been estimated, on a global basis, to exceed requirements by about five percent. Armed with these "facts" and oblivious to any others, one might argue that the food crisis is illusory. Such are the perils of averaged data and global overviews. Only as the lumped averages are dissected and the panoramic focus is sharpened to individual regions, countries, and income groups do the real dimensions of food shortages and malnutrition appear.

### From Food Exporter to Importer

Forty years ago, what we now know as the developing world was a net exporter of food. Today, these same regions are substantial net importers, accounting for 37 percent of all imports of food moving in international trade. While year-by-year food production increases in the developing countries have matched those of the industrialized world, averaging about 2.7 percent annually, the significantly higher rates of population growth in the former group of countries — 2.4 percent as compared to 1.0 percent in the developed world — have meant that

per capita food production increases have been marginal at best. For a significant number of developing countries there have been no gains, and there may even have been actual declines, in per capita food availability.

Twenty-five years ago, the developing world's gross imports of cereals, which comprise the bulk of food imports, averaged about 12.4 million tons per annum. By 1972 this figure had tripled. In the current crop year, it will exceed 50 million tons. During the earlier part of this period, the burden of paying for increasing exports was considerably lightened by the availability of large amounts of food aid. Between 1954, when the United States enacted P.L. 480, and 1969, food aid shipments ranged between 30 and 45 percent of the total food imports of the developing countries. At their peak, in the mid-1960s, food aid shipments reached 18 million tons yearly. By 1973-74 this figure had declined to less than 7 million tons.

In addition to providing a source for much of this food aid, the large cereal stocks accumulated in North America served as a stabilizing influence on world grain prices — a factor dissipated by the short grain crops of 1972 and the resulting entry of the Soviet Union into the world grain market on a massive scale.

### Higher Prices Bring Crisis

The trebling of most cereal prices within a matter of months placed enormous pressures on food-deficient countries. Twenty years ago, cereal imports cost developing countries less than a billion dollars. By 1972-73 this cost had risen to \$4 billion, and the following year it was estimated at \$10 billion. These additional costs had to be faced just as fuel and fertilizer prices, reflecting critical energy shortages, also began to escalate. The dilemma for the food-deficient developing countries, and especially for those without oil or mineral wealth, was how to maintain sufficient foreign exchange earnings to cover both short-term food needs and agricultural inputs needed to maintain and expand domestic food production. Roughly one-third of the world's developing countries are experiencing extreme hardship in meeting these basic requirements. These countries — 33 in all — have

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been designated by the United Nations as "most seriously affected" or "MSA" nations and they are the focal point of the United Nations (UN) Emergency Operation established in 1974 as a result of the UN Special General Assembly on Raw Materials and Development.

The critical cereal supply situation that emerged following widespread crop failures in 1972, combined with deteriorating conditions in the drought-stricken Sahelian zone of Africa and in Ethiopia and South Asia, had already prompted requests for a World Food Conference under United Nations auspices, which was eventually held in Rome in November 1974.

During 1974, the small World Food Conference Secretariat, working with specialists of the Food and Agriculture Organization (FAO), compiled the basic documentation that provided the framework for the ministerial-level gathering: an assessment of the present world food situation and a set of proposals for national and international action designed to improve future prospects. Drawing on already extensive FAO studies, the conference documentation was able to set new dimensions on the world food situation.

### **Two Aspects of World Hunger**

One result of this work has been to distinguish two separate, but interrelated, aspects of world hunger. One is the immediate threat of famine, food shortage, or excessively high prices resulting from unexpected fluctuations in supply, however caused. The effects of such dislocations may often be confined to relatively small populations in local areas, but also, as in the case of the Sahelian drought, can range over enormous areas affecting millions. The second, less spectacular yet more pervasive aspect, is the chronic hunger and malnutrition experienced by the poorest people, in any country, whose income does not provide for minimum nutritional requirements.

Because national averages tend to obscure the vast differences in dietary standards among various socio-economic groups and geographic zones within countries, FAO, in preparing for the World Food Conference, devised a new methodology for assessing the number of malnourished people in the world. Using the most conservative criteria, FAO estimated that the number of people whose food intake is below the minimum needed to provide energy for body maintenance is at least 460 million, or roughly 15 percent of the human race. This figure does not include the People's Republic of China, for which adequate statistical material was unavailable.

About 30 million of these severely malnourished people are in developed countries. The rest are in the poorest sections of the developing world, comprising as much as 30 percent of the population in South Asia and 25 percent in Africa. Most of them dwell in rural areas and a large proportion are children. They survive, as a senior FAO official recently put it, "by reducing work and other activity, or by losing weight, or by not growing or learning if they are children — in other words, by adjusting to a substandard existence, and becoming increasingly vulnerable to disease and death."

### **Sobering Food Demand Picture**

FAO projections for future food demand present an equally sobering picture. World cereal demand for 1969-1971 averaged just over 1.207 million tons. Average production for those years was 1.239 million tons, leaving an average balance of 32 million tons. Slightly less than half of the demand, 590 million tons, originated in developing countries, with more than 90 percent of the figure representing direct human consumption. Of the 617 million tons accounted for by developed countries, about 60 percent was for livestock feed.

Projections to 1985 imply a 43 percent increase in global cereal demand. In the developed countries, demand is projected to increase by 29 percent, almost entirely accounted for by nonfood uses. In the developing world, demand for cereals is projected to increase by 63 percent in market economies and 47 percent in centrally planned nations. While demand for feed grains alone would increase sharply in these latter two groups, cereals channelled through livestock would still account for only 14 percent of the total cereal demand compared with the 66 percent to be so utilized in developed countries. In all, of the 520 million additional tons of cereal production estimated to be the global requirement by 1985, about 225 million tons would be for direct human consumption and the balance for livestock and other purposes.

Although the focus of nutritional concern is upon cereals which form the staple diet of much of the world's population, there will have to be significant increases in production of other commodities as well, to meet population growth and increased income by 1985. These projected needs are: 40 million more tons of sugar each year; 110 million tons of vegetables; 90 million tons of fruits; 60 million tons of meat; and 110 million tons of milk.

### **World Food Conference Proposals**

Since the World Food Conference Secretariat's assessment of these needs was generally accepted by member countries in preparatory meetings, most attention at the conference itself was on the proposals for action required to meet these needs. These proposals reflected three major considerations:

- (1) that in the long run the solution to critical food shortages and chronic malnutrition must be achieved through more productive agriculture in the developing world;
- (2) that food aid would continue for a considerable time to play an important role in agricultural and economic development, and emergency relief and commitments to it should be made to provide a minimum level on a continuing basis;
- (3) that ensuring the availability of all forms of adequate food supplies as well as avoiding acute food shortages depended on some more reliable system of establishing and maintaining adequate reserve stocks of basic food commodities.

Vying for attention with these major themes, though not formally on the conference agenda, was the immediate problem of critical food shortages in the most se-

verely affected countries. In separate meetings called by FAO Director-General A. H. Boerma and attended by major cereal exporting and importing nations, cereal requirements in the most severely affected countries for the balance of the crop year (to June 30, 1975) were identified at 7.5 million tons. By mid-March of 1975 commercial transactions and increased food aid commitments had reduced that shortfall to the range of 1.2 to 2.4 million tons. But this apparent achievement in keeping the number of actual deaths from starvation to a minimum must be tempered with the realization that, at very best, the affected populations have been restored only to previous inadequate levels of diet.

On the issue of longer-term food aid, the conference resolved to establish a basic minimum level of 10 million tons yearly for three years beginning in 1975. Current indications are that nearly 90 percent of that target has already been committed for 1975.

### **World Food Bank Concept**

The issue of reserve stocks is more complex. The concept of a world food bank has a long history and was, indeed, an integral theme in the founding of FAO. Member governments, however, demurred at the prospect of consigning national food stocks to an internationally controlled reserve and a succession of proposed schemes collapsed at the political level. One concrete step was the establishment, in 1962, under joint FAO-UN auspices, of the World Food Programme, to which member governments pledged commodities, cash, or services so that food aid might be utilized as an adjunct to economic development, as well as in emergency situations.

Early in 1973, FAO Director-General Boerma brought forward a proposal for an International Undertaking on World Food Security designed to avoid some of the previous objections raised by member governments. As it has emerged from a series of international consultations, including review and approval by the World Food Conference, the International Undertaking comprises a number of elements. The food reserve aspect envisages nationally held grain stocks whose levels and distribution would be coordinated internationally through consultation and agreed-upon guidelines. A key component would be a worldwide food information and early warning system under which all adhering governments would be required to provide up-to-date information on crop production, stocks, and food shortages. International agencies are directed to provide further assistance to developing countries to improve reserve-holding capacity.

The undertaking has been transmitted to member governments of the United Nations for indication of their adherence. By summer 1975, it is hoped, a working agreement for the World Food Security System will have been achieved. On the food information front, FAO is already extending and improving its reporting system.

Rebuilding depleted food reserves, however, depends in the final analysis on better crops. If the developing countries are to avoid food import bills far beyond

the capacity of their foreign exchange earnings, or conversely, the industrialized countries are to escape continued and increasing costs of food aid programs, certain components of the agricultural revolution that made North America, Europe, and Oceania surplus-producing regions must be introduced and adapted to the developing world.

As a target for increasing food production in the developing world, 3.6 percent annual growth was designated by World Food Conference Secretariat as needed to meet population growth and improved income levels. This would represent an annual growth rate about 40 percent above the average levels maintained over the past two decades. Attainment of this objective implies major long-term commitments to the agricultural sector both by national governments of the developing countries and by bilateral and multilateral development assistance programs.

### **Shortage of Fertilizer**

In the short run, there is need to overcome critical shortages of fertilizer and pesticides. The fertilizer problem is being tackled by the International Fertilizer Supply Scheme, established by the FAO Council in July 1974 in response to a request from the Economic and Social Council of the United Nations. The scheme has since been monitoring the world fertilizer situation, giving particular attention to the needs of the most severely affected countries and facilitating imports by them where possible. Up to the end of January, 1975, 22 assistance operations involving 18 countries had been launched. The funding involved was \$34.4 million, representing either direct contributions to the scheme or funds channelled for fertilizer purchases by the UN Special Emergency Fund with which the scheme has maintained close liaison.

Despite these efforts and a gratifying increase in bilateral assistance for fertilizer purchases, it has been estimated that the most seriously affected countries suffered a shortfall of 337,000 tons of nutrients for the 1974-75 crop year, roughly equivalent to the loss of 2.7 million tons of grain.

In the longer term, if the developing countries are to achieve the food production growth target of 3.6 percent per year, their present rate of fertilizer consumption of 11.5 tons per year must be doubled by 1980-81. Such a trend would further widen an already significant gap between demand in the developing countries and their domestic production capacity. In view of this, a resolution from the World Food Conference called for increased levels of financial and technical assistance to develop fertilizer plant capacity in developing countries possessing the appropriate national resources.

Aside from bolstering fertilizer plant capacity, an investment normally identified within the industrial sector, the total annual rate of investment in agriculture in the developing countries would need

to be increased from the current level of \$8 to \$10 billion to \$16 to \$18 billion over the next five years. It is estimated that at least one-third of these investment requirements must come from outside the developing countries concerned, implying that the current level of foreign assistance to agriculture — about \$1.5 billion annually — must be trebled. Of this amount, approximately half would be needed to support land and water development, including improvement of existing irrigation projects, new irrigation works, and opening of new arable land. Crop and livestock programs would require another \$1 billion.

The World Food Conference also called for a dramatic shifting of agricultural research emphasis to the problems of the developing world which currently accounts for less than 15 percent of the world total of funding for this purpose. The foreign assistance component required was estimated at \$600 million annually.

Table 1. Annual Public Sector Expenditure on Agricultural Research by Region, Selected Years

Region	Expenditures in Millions of 1970 US Dollars			
	1951	1958	1965	1970
1. North America	225	333	448	478
2. Northern Europe	60	104	217	258
3. Southern Europe	8	15	27	32
4. Oceania, S. Africa and Rhodesia	25	45	100	176
5. Eastern Europe and U.S.S.R.	65	150	265	300
6. Latin America	8	11	24	42
7. Middle East and North Africa	19	26	38	47
8. South and Southeast Asia	10	16	42	54
9. East Asia	24	36	91	113
10. Sub-Sahara Africa	10	20	39	69
All Developed Countries	405	679	1126	1324
Less Developed Countries*	49	77	163	236
World Total	454	756	1289	1560

\*Defined as regions 6 through 10 excluding Japan.  
Source: Evenson

The other major agricultural sector identified as requiring increased foreign financial assistance was credit and marketing services, including storage and processing facilities. These needs were estimated at \$1.2 billion annually.

## Must Mobilize Human Resources

A recurring theme at the Rome conference was the recognition that, without better mobilization of human resources, all the investments in agricultural inputs, development, and research could lose their potential effectiveness. The most critical issue is how to involve the hundreds of millions of small farmers and landless workers in the development process. The issue is doubly difficult for bilateral aid programs and international agencies, because it so often involves sensitive political questions such as land reform, income redistribution, or new social relationships. No clear-cut pattern of rural development can be suggested as universally suited to all countries. Each nation must evolve its own approach within the framework of its own political objectives, social attitudes, and administrative capabilities.

The future needs of developing countries for external assistance to agriculture should be viewed in this context. The response of the World Food Conference, in terms of the institutional arrangements it proposed, reflected a recognition that what was needed was not some "supranational" body to oversee and monitor national policy or action, but some mechanism that would provide sustained and effective support to national programs while facilitating the coordination of international activity in complementary areas.

The World Food Council and the Consultative Group on Food Production and Investment have been structured to this end. Similar approaches have been indicated for the coordinating bodies currently being established in the fields of food aid and food security. It is obviously too early to pass judgment on their probable effectiveness. What is important to remember at this stage is that they were designed to be as realistic and as flexible as possible in responding to the needs of the world's poor and hungry.

## References

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