

From our reporter at the World Food Conference in Rome

The assessment

Though generally skirting the population issue, an "Assessment of the World Food Situation" compiled by the World Food Conference secretariat clearly shows that a food gap was building between developed and underdeveloped countries long before the present crisis and that its cause lies squarely in their population growth-rate differences. During the fifties and sixties, both groups of nations were expanding their agricultural output at about equal rates, but population was growing more than 40 percent faster in developing areas. The present crisis has its roots in a spate of global bad weather and rising oil prices, which caused grain yields to fall at a time when food reserves had been drained by poor harvests two years ago. But even before that, the secretariat finds evidence that the "Green Revolution" seemed to have reached a plateau, and that the growth of agriculture was slowing. Apparently the most dynamic farmers had been mobilized, and ecological restraints on further growth were being felt.

As a result, even before the present famine conditions appeared in some areas, 61 of 97 "developing countries" were experiencing chronic food shortages, with up to a third of the people in Africa and the Far East suffering from malnutrition. The secretariat conservatively estimates that almost half a billion people throughout the developing world suffer from malnutrition—defined as hunger to the point of physical disability.

Again excepting the present crisis, projections of future supply and demand figures for food look grim. Demand is expected to grow at a rate of 2.4 percent a year—2 percent because of population; 0.4 percent because of increasing wealth of some buyers. If historical production rates continue rising steadily, the world would be able to produce enough food to theoretically meet this increasing demand, but not in the regions where it is most needed. By 1985 the dependency of the developing countries would increase by a factor of five—costing them some \$17 billion a year at today's prices. Should there be an effort to "moderately" improve the diet of people now malnourished, this would add an extra 10 percent to the figures.

Clearly, developing nations unable to purchase food on the open market today could never handle such a burden, and present levels of aid would also be inadequate. With the disappearance of vast American grain stores, food aid as such has been declining. Monetary aid for development has not kept up with price rises in oil and food, and declined from 0.95 percent of the gross domestic product of the donor nations, a decade ago, to less than 0.78 now. And what is left is unevenly distributed: The very poor countries receive about half the per capita aid that some better-off developing countries get.

To stave off what would thus be an inevitable crisis—now brought nearer by the vagaries of weather and finance—the secretariat recommends greatly increased food aid, monetary investment, and new priorities for research. The report also makes a clear distinction between the need for "food security stocks" to meet worldwide shortages, and an "emergency food reserve," to alleviate acute local famine. How large such stocks and reserves should be, and how they would be administered, are left up to the conference delegates to work out.

The first priority for investment and aid, the report states, is to raise crop production levels in developing

countries. The fastest way to do this over the short run is to increase fertilizer use, for despite an 11 percent a year growth rate in its consumption, developing countries still use only about one fifth the fertilizer per acre that the most productive countries use. But prices for fertilizer have quadrupled, so the problem finally becomes one of building fertilizer plants in the developing countries and providing credit to small farmers to be able to purchase it. To increase yields to optimum level, a Southeast Asian farmer, for example, should be encouraged to spend between \$20 to \$80 per hectare, depending on the crop, compared with his present expenditure of only \$6 per hectare.

But development planners are finally realizing that modern technology cannot be transferred wholesale into areas with only a rudimentary financial and technical base. Hence new priorities for research to develop ways of helping small, poor farmers increase their crop yields. In the area of fertilizer research, this means an emphasis on finding ways of making nutrients go further—slow-release mechanisms, the use of nitrogenase inhibitors to make plants take up the fertilizer more slowly, and more efficient use of self-fertilizing legumes and organic manure. New kinds of soil management must also be worked out through research in tropical areas, where fast leaching soil and high loss of organic matter in the soil now pose so many problems for agriculture. The report concludes that the total amount of arable land in the world could thus be increased by nearly 20 percent within a decade, requiring an annual investment of some \$8 billion.

Research could also increase livestock production by increasing the feed base, improving health conditions of the animals, and development of genetically superior strains. A 20-year campaign to eliminate tse-tse fly infestation in Africa could alone increase the world's pasturage enough to feed 120 million head of cattle. The total cost would be around \$2 billion to \$2.5 billion. Fish production could be substantially increased through aquaculture in tropical areas. Aquaculture now accounts for about 10 percent of the world's fish catch, but increasing this amount will depend on whether water pollution can be controlled.

All such schemes must be carefully thought out, however, or some areas will become overdeveloped—leading to unemployment, with more imported energy needed to do the work.

The critique

Though the secretariat assessment was generally well received, some delegates found its analysis too conservative. Too many projections of future trends, they point out, are based on simple extrapolation of past growth rates, without taking account of underlying factors. Thorkil Kristensen, a former secretary-general of the Organization for Cooperation and Development, said that to expect a 20-percent expansion of arable land together with a 20-percent expansion of food production was particularly unrealistic, since for the most part the best land for farming is already in use. Others point out that the increasing self-protective attitude of developed countries is likely to preclude any vast new expansion and they say such investment is likely to be left to multinational companies who would rake off the profits of local resources and leave developing countries in a bind.