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Difficult Issues Underlying Food Problems

Lasting solutions require changes in social and economic imbalances and in political decisions.

Harry Walters

World food problems developed with disturbing suddenness in 1972. Two decades of sufficient food—indeed surpluses, stable or declining food prices, large grain stocks, and large amounts of food aid seemed to indicate an increasing capacity to produce more food more efficiently. But in 1972 food prices rose sharply, food shortages developed, food aid shipments declined, and grain stocks fell to dangerously low levels. Subsequently, fears were expressed that the world might be nearing the limit of its capacity to increase food production while population continues to increase, so that some must starve (1) or the world's rich will have to share their food with the world's

poor (2). In the background, climatic changes have been predicted that suggest even more ominous prospects (3).

Surprisingly, major studies carried out in 1974 to investigate the causes and character of present world food problems—one of them being the United Nation's own assessment for the World Food Conference in Rome in November 1974—did not reflect these cataclysmic anxieties (4). While the problems are serious, these studies all concluded that over the next decade more food can be produced and that the conditions existing now can be corrected.

The difference between the issues that attract popular attention and the conclusions drawn from them and those that surfaced in these studies have been attributed to the differences between "pessimists" and "optimists."

But concern about food problems and solutions is shared by both groups; what differs is the explanation of the causes of the problems and the types of solutions proposed.

Among the major food problems the most important are an imbalance in the growth of food production between the developed and developing countries, inadequate food stocks to insure against serious disruptions in food production, malnutrition, and an imbalance in food policies among countries. Neither the causes nor the solutions of these problems are simple. A much better understanding of these problems is needed as a preamble to sound, lasting solutions. Such understanding requires an appreciation of how people respond to the commodity food and how the commodity food is affected by the economic forces that operate on it and on other commodities. It also requires an understanding of the combination of factors that came together in 1972 to 1974 to produce the food problems the world faces now.

Food, the "Special" Commodity

Food, like water and air, is the staff of life. When we have less than we need we are hungry, our growth is stunted, and our capacity to deal with living itself is impaired. There are an estimated 460 million malnourished people in the world for whom these conditions apply in varying degrees. Below a certain minimum, people starve. Looked at this way, food is special.

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While food is the staff of life, it is also a commodity. At most times and in most places, the same forces that determine the supply and demand for other commodities also give shape to how much food is produced and what kinds and how much is consumed. How much farmers receive for their produce compared with what it costs them to produce it determines the supply in most cases. How much income consumers have to spend on food determines to a very large extent the kinds and qualities of food different people consume. While our sense of food as the staff of life tells us that food should be special, its behavior as a commodity is special in only certain ways. Also while we may think of food as the combination of land, water, and labor—and somehow uniquely limited by these—the resources we use to produce many other things also produce food. How we allocate all our resources therefore partly determines how much food is produced. Much the same is true of our consumption patterns. While it seems logical to think in terms of sharing food, it is the difference in people's incomes that determines differences in food consumption.

The demand for and supply of food do have special properties which are important to an understanding of present problems. The demand for food grows fairly uniformly and predictably with population and income growth. For example, the world's demand for grain is now increasing at about 25 million tons per year. This growth rate is fairly predictable, when grain prices are relatively stable, because of the rate of population growth, income growth rates, and the distribution of income around the world. The supply of food, however, can be unstable because of weather, other natural phenomena, and human and governmental decisions. As a consequence, the quantity and quality of food demanded is rather rigidly confined within limits and is therefore said to be inelastic (5). When supply falls below this limit (in the absence of stocks), people will sacrifice a great deal for food and its price will rise sharply. But when supply rises above this limit, people will have little use for additional food and be willing to pay very little for it. Therefore, in periods of oversupply (when the surplus is not accumulated as stocks) food prices can fall sharply. Moving down the income scale and toward basic foods this characteristic becomes accentuated. Poor peo-

Table 1. World production, consumption, trade, and stocks of major grains (excluding rice and minor grains) from 1960 to 1973; mmt, million metric tons.

Marketing year	Area harvested (million hectares)	Yield (quintol per hectare)	Beginning stocks*	Production (mmt)	Total exports (mmt)	Consumption total† (mmt)
1960-1961	473.5	13.9	169.8	657.0	69.9	640.6
1961-1962	466.9	13.4	182.7	624.2	80.8	648.1
1962-1963	468.0	14.3	156.0	671.3	78.0	664.8
1963-1964	475.1	13.9	159.6	661.7	94.1	664.5
1964-1965	480.0	14.5	154.8	696.3	92.4	686.0
1965-1966	476.3	14.7	157.7	701.9	108.1	734.7
1966-1967	475.6	16.2	122.2	771.1	100.0	744.1
1967-1968	485.7	16.2	151.1	785.6	97.4	767.4
1968-1969	491.1	16.7	163.1	822.4	89.7	794.4
1969-1970	487.4	16.9	191.3	825.7	102.1	839.3
1970-1971	476.1	17.3	168.6	823.7	109.2	855.5
1971-1972	484.4	18.8	131.5	911.4	111.2	892.8
1972-1973	479.4	18.5	149.3	888.1	141.8	925.4
1973-1974‡	499.6	19.4	108.1§	970.4	151.0	959.5

* Stocks data are only for selected countries and exclude such important countries as the U.S.S.R., the People's Republic of China, and part of Eastern Europe, for which stocks data are not available; the aggregate stock levels have, however, been adjusted for estimated year-to-year changes in U.S.S.R. grain stocks. † For countries for which stock data are not available, or for which no adjustments have been made for year-to-year changes, consumption estimates assume a constant stock level. ‡ Preliminary. § 100 million tons is generally considered a worldwide minimum "pipeline" stock level below which there is no contingency reserve.

ple spend much of their limited income on food and much of this on basic foods (primarily cereals and pulses). The poor have the least flexibility to shift their consumption pattern. Basic foods therefore exhibit the least flexibility in demand and thus can experience the greatest fluctuations in prices.

Origins of Present Problems

Three distinct but related sets of developments came together to produce the food problems that appeared so abruptly in 1972 to 1974: fundamental weaknesses in the world's food system which were emerging over the past two decades; a special combination of developments during the 1960's that created conditions that made the world especially vulnerable to unexpected shocks; and the rather unique and unpredictable appearance of these very shocks in 1972 to 1974.

Contrary to what might be thought, food production grew at about the same rate in both the developing and developed countries during the past two decades—about 70 percent in both areas, or 2.8 percent annually. This growth of food production exceeded substantially the 2 percent annual growth in world population. On the average, therefore, the 3.8 billion people alive in 1973 ate 21 percent more food per person than was consumed by the 2.7 billion people living in 1954.

But annual population growth in the developing countries increased from 1.9 percent in 1950 to 2.5 percent by 1964 and has stabilized at that level since. In the developed countries, population growth was relatively stable at 1.3 percent throughout the 1950's but declined during the 1960's to 0.9 percent at present.

Rapid population growth in the developing countries thus limited per capita food production to less than 0.4 percent annually, while it rose at 1.5 percent per year annually in developed countries. Some developing countries and some groups in many countries did not, of course, experience any improvement.

With 86 percent of the world's population growth now taking place in the developing countries, most people are born in areas where little improvement in per capita food production is taking place. Disruptions of food production in these areas quickly reduces the supply of food per capita to the low level of previous years, and this can turn into real hunger or famine for some groups.

Food "Gaps" and Food Surpluses

A manifestation of this disproportionate growth in per capita food production is that two decades ago the developing countries were slight net exporters of cereals. By the early 1960's

they had become net importers of about 13 million tons annually, and in 1969 to 1971 their imports averaged 20 million tons annually. In the difficult year of 1973–1974 their imports rose to more than 30 million tons.

For different reasons another food “gap” has emerged from the planned economies. Prior to 1960, these countries—primarily the U.S.S.R and China—were also, on balance, net exporters of cereals. During the 1960’s, however, they began to turn to the developed grain-exporting countries for large amounts, but at unpredictable times. In 1963–1964 their imports peaked at nearly 15 million tons and then declined to relatively low levels in the late 1960’s only to peak again in 1972–1973 at more than 32 million tons.

This increasing dependence on imported grain is often seen as an indication that both the developing countries and the planned economies are rapidly losing their ability to produce enough food. But this is too simple an explanation. It obscures the role played by the food policies of these countries and

by food surpluses, which existed also partly as the result of policy decisions, of the developed countries.

The developed countries emerged from World War II with their own problems. Feeding Western Europe and Japan was an important issue; and the United States, Canada, and Australia, undamaged by the war, rapidly increased grain production to fill these needs. Part of this food transfer was helped by various relief programs. With recovery, both Europe and Japan were launched on a course of rapid economic growth.

As Europe and Japan became more self-sufficient in food, partly through policies that protected their farmers from imports and insulated their farm prices from world price levels, the grain-exporting countries found themselves with dwindling markets and declining prices. Pressures to maintain farm incomes caused them also to adopt measures that included supported farm prices. These price levels resulted in the accumulation of grain surpluses, which characterized the past two dec-

ades. It was thought that food (mostly grain) stocks would be released in times of shortage and accumulated in times of surplus, but releases proved politically more difficult than accumulations, and the stocks grew.

Malnutrition in the developing countries existed during the 1950’s, but the relatively modest import deficits of these countries could be easily satisfied by food aid shipments from the large surpluses in developed countries, and such aid helped to reduce the surpluses. Moreover, the priority in economic development in the developing countries (by their governments and by assisting developed countries) was the expansion of industry, which was thought to be facilitated by low food prices. This industrial orientation and low consumer prices for basic foods has also been characteristic of the development policy of most planned economies.

The availability of food therefore was not a high priority, and it was convenient from many points of view to rely on the inexpensive surpluses of the developed countries. A climate was

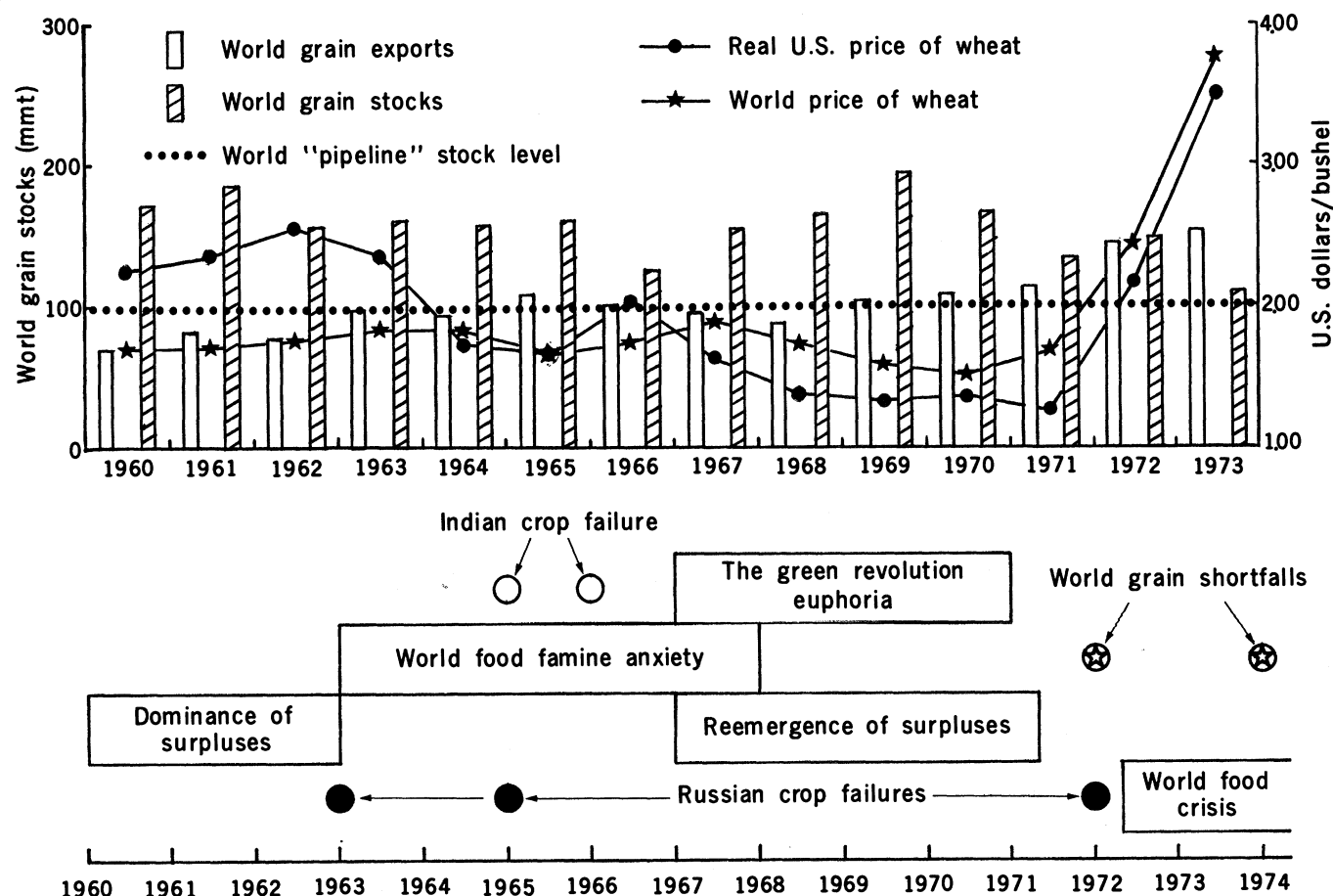


Fig. 1. The sequence of events in the world from 1960 to 1974. The real U.S. price of wheat represents the average price received by farmers, minus government payments, and deflated by the GNP deflator. The pipeline stock level is that necessary to cover operating needs. Stocks above this level can be considered as contingency reserve. The data are rough and apply primarily to the late 1960's and early 1970's. The world grainstock measurement excludes rice. [Data are from (9)]

therefore created by 1960 in which grain was relatively inexpensive in export markets while its price within exporting countries and many importing developed countries was relatively high. In developing countries, grain prices were low because much of the production and consumption was internal, policies were oriented toward low costs of cereals to the consumers, and agriculture was often an important source of tax revenue to the governments.

Policy Changes and Food Supply Response in the 1960's

At the beginning of the 1960's a dominant concern of the grain-exporting developed countries was to reduce surplus stocks and to increase markets. Grain stocks were between 70 and 80 million tons above a level of 100 million tons, which is considered a normal "pipeline" level, and equal to 1 year's normal exports (Table 1). There was widespread feeling that these stocks were a burden on taxpayers and an inefficient use of resources.

World Food Famine and Rapid Production Increases (1963 to 1966)

The efforts to reduce stocks were interrupted by other events. The Russians had major grain crop failures in 1963 and 1965. Unlike their earlier response to these shortfalls, the U.S.S.R. imported large amounts of grain after both crop failures. China also began to import wheat by 1960. India experienced major crop failures in 1965 and 1966 and imported large amounts of grain, much of it as food aid on concessional terms. The combined effect of these events raised grain exports sharply, and world grain stocks fell dramatically to about half of 1 year's annual exports (Fig. 1 and Table 1).

There was widespread fear of an approaching "World Food Famine" in the early 1960's (6). The major exporting countries expanded wheat production sharply (Fig. 2). The fertilizer industry responded with a dramatic 20-million-ton increase in capacity, assisted by important technological and transport improvements and low energy costs.

Serious attention was devoted to increasing food production in developing countries through the Green Revolution. The "revolution" depended primarily on high-yielding wheat and rice seeds

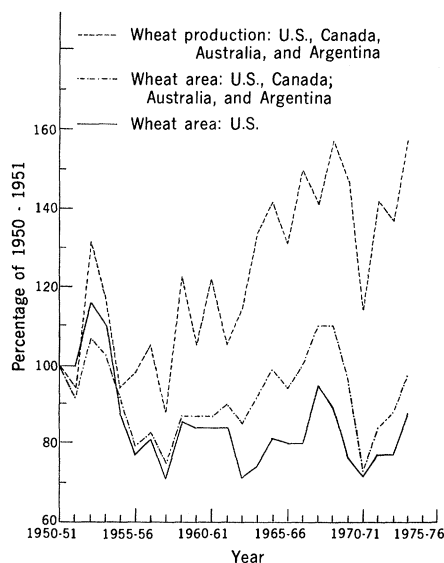


Fig. 2. Wheat area and production in the United States, Canada, Australia, and Argentina. [Data are from (9)]

and the concomitant use of fertilizer on well-irrigated land. But a crucial feature was special incentives to developing country farmers such as subsidized credit and input packages, and incentive prices for target groups of producers.

Surpluses and Low Prices (1967 to 1972)

By 1968-1969 "famine" had been turned back into "surpluses." Grain exports fell and world grain stocks reached a new peak (Fig. 1). It is difficult now to recall the sense of pessimism about the future of food grain markets that prevailed from 1968 to 1971. Studies at that time projected long-run surpluses and falling prices for wheat and rice. Only feed grains seemed promising. The reemergence of "surpluses" caused the major grain exporters to reduce their wheat areas dramatically, shifting to feed grains or eliminating grain entirely; and their wheat production fell from more than 81 million tons to less than 60 million by 1971. World grain production held constant between 1968 and 1970, the declines in exporting countries being offset by growth in others (Fig. 3). Grain consumption continued to rise, however, with the effect that world grain stocks by 1971 had fallen sharply (Table 1).

This rapid reduction in grain stocks contributed to a further lowering of already low grain prices. In many grain-

exporting developed countries, especially the United States, farmers continued to receive the prices for grain that they had been receiving; but grain users, livestock feeders, and importers paid much lower prices because support policies had been changed. This stimulated both the feeding of grain to livestock in many developed countries and led to greater dependence on imports by developing countries, planned economies, and importing developed countries. Low prices of grain and food and reduced production of grain lowered the demand for fertilizer, which was then in oversupply, thereby causing fertilizer prices to fall to extremely low levels during the period from 1967 to 1971.

In this environment, anxiety about a "world food famine" was quickly displaced by enthusiasm about the unbounded success of the Green Revolution, which, still in its infancy, was experiencing by the early 1970's an erosion of the incentives previously provided. Despite the underlying weaknesses that were evident, the world food situation from 1967 to 1971 seemed to be characterized by inexpensive food and fertilizer. The potential vulnerability inherent in low grain stocks throughout the world received little attention in the face of such conditions and in the face of the recent large increase in production.

The Shocks of 1972 to 1974

The most dangerous thing that could have happened in the face of these conditions did happen—world food production fell in 1972 for the first time in two decades. World grain production fell even more sharply, about 35 million tons, compared with an annual increase in world consumption of about 25 million tons.

The dispersed impact of crop failures from 1972 to 1974 produced large imports by the U.S.S.R. in 1972 at the still low prices then prevailing, and by the developing countries in 1973 at higher prices. Grain exports rose 36 million tons above the 1971-1972 level and 47 million tons above the average for 1966 to 1970. Stocks fell to a level generally considered to be at or below the minimum to cover normal annual usage.

Without stocks to cushion the effect of the inelastic demand for cereals, wheat prices rose from \$60 to \$200 a

ton, and rice prices increased from \$130 to more than \$500 a ton between 1972 and 1974. While this provided a tremendous stimulus to production, the stimulus fell on a fertilizer industry which, by 1972, had exhausted the surplus capacity it had built up during the early and mid-1960's, and fertilizer prices rose almost as sharply—from \$50 to \$75 a ton in 1972 to \$300 to \$400 a ton in 1974.

Shipments of food and fertilizer as aid, which were dependent in large part on surpluses of both, dwindled as grain was drawn out of the United States, the largest supplier of food aid and the world's largest grain exporter. Food prices for the poor, who depend largely on cereals, rose sharply while food aid was dwindling.

The oil crisis, the devaluation of the U.S. dollar, rapid worldwide economic growth in 1972 and 1973, and inflation also played a role in these developments, but their role was primarily contributing rather than determining.

Future Possibilities and Issues

Developments over the past two decades point up four essential facts about food. (i) There is not one but many food problems, and a surprisingly large number of them are the result of human and governmental decisions rather than of immutable forces; (ii) food production can be and has been increased or decreased quite rapidly in "normal" conditions; (iii) food supply and price stability depend largely on stocks of food large enough to overcome shortfalls in production; and (iv) when food prices rise sharply, the poor are adversely affected.

Problems and Possibilities

All of the major studies of the world food situation in 1974 lead to generally the same conclusions.

1) There are sufficient resources—of land, labor, water, fertilizer, technology, and other capital—to increase food production substantially, at least in the next decade or two.

2) The major problem is to increase food production in those developing countries that have the potential to do so and that are facing the most severe food deficits.

3) If the trends of the past are not changed: (i) the food deficits of the

developing countries will rise from about 20 million tons in 1970 to somewhere between 55 million and 85 million tons by 1985; (ii) the surpluses of the developed countries will match or exceed these deficits; but (iii) the transfer of much of this surplus to deficit poor countries would have to take place on concessional terms, which seems neither desirable nor likely.

4) Neither famine relief nor world food stability is possible without sufficient stocks of food to overcome unexpected and unpreventable disruptions in supply.

5) Malnutrition is a major problem that results largely, but not entirely, from low incomes. To correct this problem requires either an increase in the incomes of malnourished groups, an increase in the food production capacity of those within these groups who are farmers, or transfer of food to these groups. It will probably involve all three.

If these are the problems and the possibilities, it is worthwhile to consider their relation to the more popular concerns that have received such attention.

Are There Sufficient Resources to Increase Food Production?

Although concern has been expressed about the possibility that the world has reached or is nearing the limits of its food-producing resources, a number of recent studies on this question have indicated that there is about twice as much land on which to produce food as is now used—3.2 billion compared with 1.4 billion hectares. To bring this land into production would involve costs and much of such land is in Africa and Latin America where population densities are low. But the land resources exist.

A more important point is that land, as such, becomes progressively less important in food production as production methods are improved. In the developed countries over the past decade or more, land inputs decreased not because land was not available but because productivity (yield) increases were a more efficient means of raising production (Fig. 3). During the same period, yield increases in the developing countries accounted for about 60 percent of the production increase. Yield increases will account for an even larger proportion of the increase in fu-

ture production in the developing countries.

This realization has drawn attention to the future availability of fertilizer, which has recently been in short supply and experienced high prices. The energy crisis in conjunction with these developments has raised doubts about the availability and cost of fertilizer in the future. Two quite independent studies of this issue in 1974 indicated that the major cause for present shortages and high prices was the exceptional high demand and the present capacity limitations of the fertilizer industry (7). New fertilizer plants now under construction are expected to increase fertilized supplies substantially, so that prices should fall within a year or two. Prices are not expected to fall to the very low level prevailing in 1967 to 1971, but costs of higher energy and plant construction are not expected to cause fertilizer prices to remain high over the long term.

Sources of Food Production Increases

The crucial questions are not whether there are sufficient resources and techniques to increase food production, but whether the increases will come where they are most needed. While progressively larger food surpluses are projected in developed countries, it seems neither feasible nor desirable that the developing countries—primarily the grain-exporting countries—could or should produce large surpluses to be transferred to needy developing countries.

Food self-sufficiency in all countries is neither a desirable nor an efficient use of resources. The grain-exporting countries are undoubtedly efficient producers and can and should continue to increase production and exports. But it is equally clear that certain developing countries must improve their food production. Whether they can do so depends on whether they have the resources and techniques; whether they will be able and willing to devote sufficient resources to accomplish this; and whether the developed countries are willing to provide productive assistance.

Developing countries are not a homogeneous group. Some have large unexploited food production resources while others do not. Some are food exporters and some are and should be food importers. For some countries, especially the poorest in Africa, slow

food production growth is only one manifestation of a very complex set of economic and social problems associated with traditional societies.

Countries, like India and Bangladesh, that have severe land limitations and extremely large populations face many other development constraints. The largest number of the world's poor are found in these and other South and Southeast Asian countries, countries where the availability of food is largely a function of rice production, and rice production is in turn a major source of income. For countries such as these the issue is how to raise the existing, extremely low yields of rice (1 to 1.5 tons per hectare compared with 5 tons per hectare in developed countries) (Fig. 4).

On their own, it is not likely that countries such as these will have the resources to bridge this gap. Combinations of food and fertilizer aid and productive technical assistance will be needed for a long time.

Many of the basic techniques to raise yields in developing countries are known, but to transfer these techniques is extremely difficult. The early development of the Green Revolution (1950's and 1960's in Mexico and 1967 to 1972 in Asia) demonstrated that the adoption of new production techniques is a long-run process in which the benefits accumulate. The full benefits

are not obtained until the country itself is able to develop an internal mechanism for adopting, modifying, and constantly improving the new techniques. The Green Revolution also demonstrated that new inputs—such as fertilizer and insecticides—are not readily adopted unless they are available, their use is understood, and the benefits of using them clearly exceed the costs.

One of the more disturbing facets of the world's food problems is that, despite poverty and the low levels of productivity in many developing countries, the adoption of production increasing techniques often does not seem profitable because there is a limited market or the prices that farmers receive are too low to justify their use. A study of rice and fertilizer prices in 1971 demonstrated that in the major rice-producing Southeast Asian countries the farmer's price of rice relative to the price of fertilizer was far less favorable than in developed countries.

Future Stability of Food Supplies and Prices

The stability of food supplies and prices during the two decades prior to 1972 was the result of uninterrupted growth in production, the existence of large grain stocks, and the absence of

severe weather or import shocks to the world food system. While the evidence is not sufficient to support dire predictions of climatic change, 1972 and 1974 demonstrated that weather fluctuations can seriously reduce production. In 1974, much hinged on a good grain crop in the United States, but the weather turned bad and thus prevented a rebuilding of stocks and a reduction in grain prices. However, many farm prices have declined during the past few months and can be expected to decline still further if 1975 is a good crop year.

The world's use of grain is now much greater than it was a decade or two ago and so is its interdependence. It seems self-evident that reserve food stocks are needed. But the past two decades have demonstrated that the maintenance of an appropriate level of stocks—in such a way that costs are not exorbitant, that both farmers and consumers are fairly treated, and that incentives to produce food where and when it is needed are not dampened—is an extremely complex undertaking involving both economic and political decisions that often need to be reevaluated. While such a system is being worked out (8), it would seem wise social policy to accept the need for stocks and absorb the costs of unexpected accumulations.

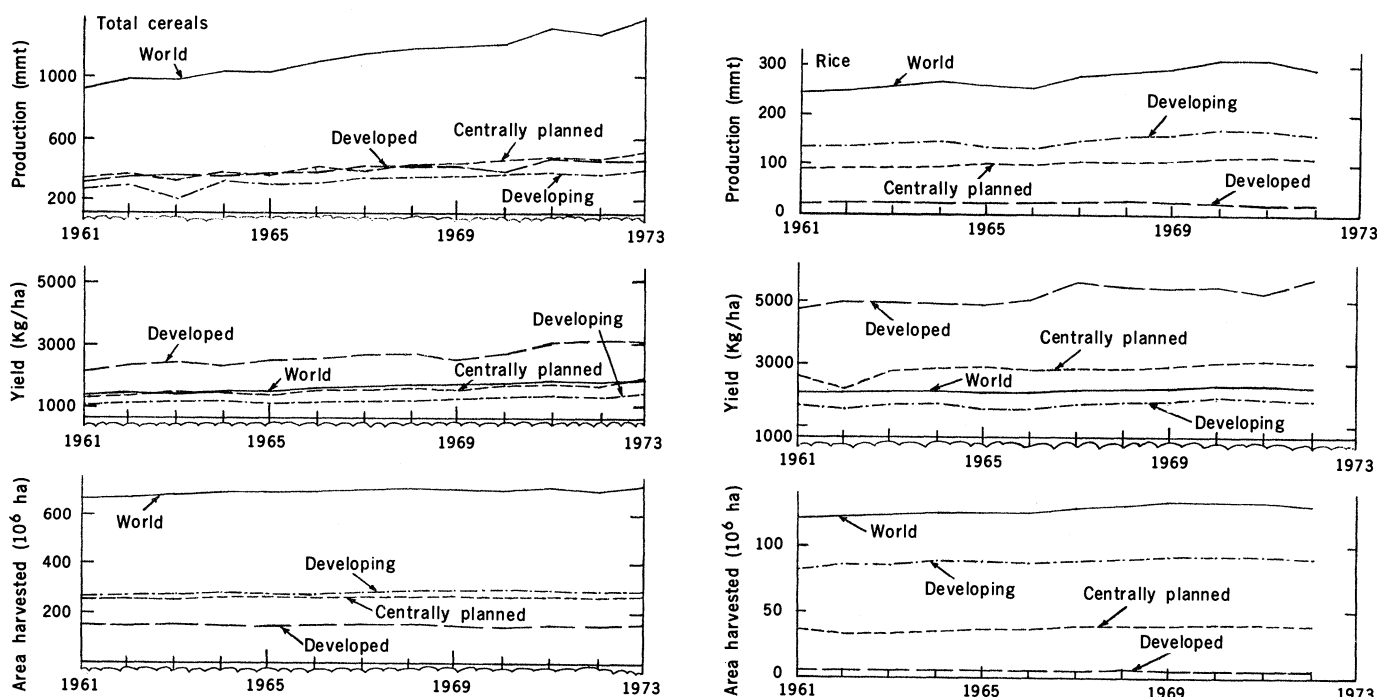


Fig. 3 (left). World production, yield, and area from 1961 to 1973. All grain and rice are included. Rice is included as paddy as well as minor and mixed grains. [Data are adapted from the *FAO Production Yearbook*, volume 26 (1973); and *FAO Monthly Bulletin of Agriculture Economics and Statistics*, volume 23 (1974)] Fig. 4 (right). World rice paddy production, year, and area, from 1961 to 1973. [Data are from *FAO Production Yearbook*, volume 26 (1973)]

Does "Rising Affluence" Impose a Restricted Diet on the Poor?

This is one of the most crucial questions that has been posed in the past 2 years. Many people in the developed countries have been shocked when they realized that they individually consume about 1 ton of cereals per year, most of it indirectly in the form of meat, eggs, and milk, while in the developing countries the average consumption of cereals is one-tenth of that, and very few livestock products are consumed.

When 460 million people are malnourished and it would require only from 25 million to 40 million tons of cereals (between 1.5 and 3.0 percent of the total world production to feed these people adequately, it is tempting to think that forgoing meat would free grain for the hungry. But the problem is not that simple. The malnourished and hungry face this problem essentially because they are poor—their incomes are low and their access to resources to earn a living are limited.

Food forgone in the developed countries would not reach these people unless it were directly transferred to them, and then only if the food were bought and transferred through institutions directly designed to do so. Moreover, a massive relief operation is not the most desirable solution. What is needed is income-generating employment for the malnourished where they live, combined with well-designed food assistance for clearly needy groups while this is accomplished.

The issue is not basically one of transferring food but increasing assistance of many kinds to poor people in poor countries. This will need the cooperation of the governments in those countries and governments in the developed countries. While individuals can directly assist the malnourished through contributions to food relief agencies, the more important contribution would be to exert pressure on

their governments to undertake a strong involvement in such an effort.

The growing imports of food by developing countries, the sporadic but increasingly large grain imports by the planned economies, and the persistence of food surpluses in developed countries all point to the need for major readjustments of agricultural and food policies in many countries. At the root of the world's food problems are serious imbalances in the availability of resources, the distribution of incomes, and the conditions under which food is produced and traded. Each of these is affected by policy decisions of governments but none more than the last.

It will obviously not be a simple matter to change the long-standing agricultural and trade policies of the developed, developing, and planned economies. The supported prices of the developed countries have grown out of a long history of political accommodation to domestic farm and consumer interests. Those of the planned economies have been central to their developmental philosophy.

For the developing countries, the problem is especially difficult since the implication is that basic farm prices should rise somewhat. This would conflict directly with the desire of many developing country governments to keep prices low for poor, urban consumers. But the increase in *long-run, real* farm prices above the low levels of the past would be relatively small, much less than the present high level. If it is desirable to subsidize prices to some consumers, this can be done without affecting farm prices, and need not be done for all consumers. Since half or more of the labor force in many developing countries depends on agriculture, the improvement in incomes would be widely distributed.

A far better use of the world's resources could be achieved during the coming decade if the developed, developing, and planned economies real-

ized that they had come to depend on a system of food production and distribution that has basic flaws. An abrupt change in this system would be painful and could produce uneconomic efforts to become self-sufficient in food at any cost. But now is the time to begin to make the necessary changes. The developed countries, through food aid and technical assistance, can facilitate this change. The oil-producing countries could also assist through financial and fertilizer aid. But this effort would be of little use unless the developing countries give a consistent priority to food production in their own use of resources.

References and Notes

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5. The price elasticity of demand is a measure of the percentage increase or decrease in the quantity purchased of a commodity resulting from a 1 percent decrease or increase in the price of the commodity. Demand for a commodity is inelastic when either a 1 percent increase in its price results in a decrease of less than 1 percent in the quantity purchased, or a 1 percent decrease in its price results in an increase of less than 1 percent in its purchase.
6. *The World Food Problem*, Report of the President's Science Advisory Committee, White House, May 1967, three volumes.
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8. The World Food Conference in Rome in November 1974 endorsed the International Undertaking on World Food Security which is a beginning toward the development of minimum stocks to provide emergency famine relief.
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