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Perspectives on the international relations of food

Raymond F. Hopkins and Donald J. Puchala

The international system of production, distribution and consumption of food is managed by states, corporations and international organizations. International organizations play minor roles in the food regime, principally as arenas for policy coordination among state bureaucracies and as agents for modest multilateral programs. All of these actors work within the framework of a set of norms, rules and practices that constitutes a global food regime. Currently, the regime is undergoing change. Growing demand for food, tighter connections among markets, and greater reliance on technology have increased the importance of international adjustments. American preponderance in shaping regime features and insuring food security through reserves has declined. The dramatic price rises and rationing of international food supplies that occurred during the “crisis” of 1973–74 exposed serious deficiencies in the existing regime. At least five world food problems—potential shortages, instability, insecurity, low productivity and malnutrition—continue as real or potential threats. To solve these problems the norms of the current regime that has existed since World War II are seriously under challenge. Re-evaluation and reform of the major principles characterizing the food regime are needed.

Securing adequate food is one of the oldest problems confronting political institutions.¹ Historically this intimate connection between food and politics has emerged in diverse forms. From the “minimal government” of nomadic herdsmen and hunting-gathering peoples and the complex despotisms found in societies relying on

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¹This paper is adapted from revised versions of “Global Food Regimes: Overcoming Hunger and Poverty,” prepared by Raymond Hopkins for the 1980s Project of the Council on Foreign Relations. The authors wish to thank Edwin Martin, Lyle Schertz, Dale Hathaway, I. M. Destler, Eugene Skolnikoff, Hayward Alker, Lawrence Krause, and a host of other food experts and CFR staff members for their insights and comments offered during various phases of the preparation of this chapter.

irrigation to the elaborate regulations for food growing and marketing in most contemporary states, the procuring of food has been a central factor shaping political patterns and, in most cases, encouraging substantial government intervention.² It is small wonder then that as food systems have become increasingly global, with national markets linked together and technology diffusing rapidly, demands for solving food problems have shifted to the international arena. Unfortunately, in recent years the contemporary international system has been unable to deal effectively with global food problems.

This essay will discuss some of the most notable of these inadequacies. In addition, we will introduce a set of concepts for describing and explaining what will be termed the international relations of food. Guided by the conceptual framework designed in this chapter, this special issue of *International Organization* will explore the international relations of food, with particular emphasis upon the capacities of national and international institutions involved in promoting the production, distribution and consumption of basic foodstuffs among the earth's peoples.

Global food problems

It hardly needs saying that the stimulus to the efforts which produced this volume is the consensus among editors and authors that there are global food problems. Problems, in the sense we use the term, are conditions of production, distribution or consumption that are sufficiently undesirable to at least some actors in the system that they initiate calls for change. It should be noted that there is a lively debate among experts over the dimensions and severity of world food problems. The controversy stems from many sources including differences in analysts' disciplinary training and ideological perspective, as well as from the varying data they call upon, the different forecasting and other methodological techniques they employ, and from crop conditions prevailing at the moment of analysis. In the judgments that follow, our approach has been to consider the literature carefully, to see points of consensus among otherwise contending writers, to evaluate others' conclusions and to frame our own arguments in the light of the best systematic evidence. Our analysis steers a rather unspectacular middle course between the positions of those who unrealistically minimize food problems and those who view them as so severe as to conclude that world-wide starvation will soon be upon us.

We suggest that five important food problems exist. First, we face the threat of *chronic food shortages* in some regions, most notably in South Asia and Africa, and their attendant economic, political and human consequences. Second, current arrangements lead to *undesirable instability in supply* bound up with unreasonable fluctuations in prices, unpredictable markets, and undependable trade flows. Third, certain countries encounter the problem of *security of food imports*, especially

²Lucy Mair, *Primitive Government* (Baltimore: Penguin, 1962); Karl A. Wittfogel, *Oriental Despotism* (New Haven: Yale University Press, 1957).

where imports represent either important elements in national standards of living, or, more crucially, where they represent hedges against starvation. A fourth problem results from the *low productivity of agriculture* and related poverty in many less developed countries. Such conditions represent a barrier to both food production and general economic development as well as a costly waste of human resources. Fifth, there is *chronic malnutrition*, especially among underprivileged groups and classes in certain countries and regions.

Each of the five problems is significant and hence deserving of extended analysis. For this reason we have asked several of our authors to discuss particular dimensions of the global food problem. Nicholson and Esseks, for example, deal with problems of underproduction and food scarcity in less developed countries. SeEVERS and Johnson each address the problem of market and price instability. Paarlberg takes up the issue of import security and studies characteristic responses to it. In separate articles, Christensen and Austin analyze problems of rural poverty and malnutrition.

The five global food problems are obviously interrelated. Each is a cause of one or several of the others, and all lead to or follow from fundamental distortions of supply or demand for food. What makes the interrelatedness of global food problems analytically perplexing is that various elements of distributional distortion affect different countries and populations in different ways, sometimes at different times. As a result the universality of the food system tends to be blurred. Several of the essays in this volume are addressed to the interrelatedness of the dimensions of the world food problem. Destler shows how the very multi-dimensionality of world food problems creates a complex and at times contradictory policy process as the United States Government deals with food and agricultural issues. Nau examines how global considerations further complicate food policy making and lead to a multifaceted and multimotivated international diplomacy. Austin explores problems of international institutional proliferation and the consequent problems of coordination that follow as the interrelatedness of food affairs defies attempts to organize internationally.

The truism underlined in this volume is that no single or simple policy, indeed no unilateral one, can solve all of the global problems of food. Nonetheless, as several of the authors individually suggest, and as the anthology as a whole implies, practicable steps toward coordinating national and international action can significantly alleviate the severity of world food problems.

As preview and overview to more detailed analyses in the essays that follow, let us look more closely at each of the problems on the agenda of world food diplomacy.

Food shortages

Food shortages in recent years were responsible for the dramatic increases in the price of grain and other basic foodstuffs in the early 1970s and for heightened domestic and international political interest in food problems. The shortages that developed between 1972 and 1974 were particularly severe due to the convergence

of an extraordinary cluster of causal factors. These factors include unfavorable weather conditions in major grain producing regions, shifts in American and Canadian reserve policies, unprecedented Soviet interventions into grain import markets, high fertilizer prices, the world energy crisis, and a failure in the Peruvian anchovy catch. Analysts tend to refer to the years 1973–1974 as a period of “scarcity crisis” for the global food system, and several of the contributors to this volume use these years as a baseline for their analyses. The term *crisis* carries emotional loading and using it too frequently tends to destroy its analytical relevance. Therefore, we do not insist that readers accept that the years 1973–1974 were crisis years in world food affairs. It should be understood, however, that they were years of extreme and rapid change in global food supply and price conditions. Furthermore, they were dangerous years because food supplies had dwindled to the point where major famines would have occurred if conditions had deteriorated further. The gravity of the situation as it developed between 1972 and 1975 is captured rather dramatically in two sets of indices — (1) grain export prices, and (2) reserve stocks of grains. These are reported in Tables 1 and 2.

Note in the tables how prices began their steep rise and total reserves began their deterioration in 1972. Although some American idle land was put into production in 1973 to meet the situation, prices continued to climb and total reserves dwindled. However, the key factor affecting the price at which grains moved internationally in this period is not the total working stocks in the world, but rather the stocks of exporting countries. Many large importing countries maintain working stocks that are practically never available for export and hence not directly a factor in international market prices. Therefore, it is the stocks of the exporting countries that both provide the security backup for world food needs and constitute the major variable affecting prices and control over markets.

Table 1 Average wheat export prices, 1968–1976¹

Dollars/bushel (60 lbs.) averaged for grades and varieties

<i>Year</i>	<i>United States</i>	<i>Canada²</i>	<i>Australia³</i>
1968	1.69	1.96	1.42
1969	1.67	1.89	1.38
1970	1.74	1.71	1.33
1971	1.69	1.70	1.40
1972	1.86	1.89	1.54

1973	3.55	4.37	2.77
1974	5.16	6.22	3.72

1975	4.79	5.52	3.11
1976 ⁴	3.98	4.34	2.96

1. Source: United Nations, *Monthly Bulletin of Statistics*, Vol. XXX, No. 12, (December, 1970), p. 165.

2. Canadian dollars.

3. Australian dollars.

4. Figures are for June, 1976.

Table 2 World food reserves, 1961-67 to 1976

<i>Year</i>	<i>Reserve stocks of grain¹</i>	<i>Grain equivalent of idled US cropland</i>	<i>Total reserves</i>	<i>Reserves as days of annual grain consumption</i>
(MILLION METRIC TONS)				
1961-67	151	70	220	89
1968	144	61	205	71
1969	159	73	232	85
1970	188	71	259	89
1971	168	41	209	71
1972	130	78	208	69

1973	148	24	172	55
1974	108	0	108	33
1975	111	0	111	35
1976	116	0	116	43
1977	171	0	171	48 ²

Source: Lester Brown, *The Politics and Responsibility of the North American Breadbasket*, World Watch Paper #2, Worldwatch Institute, October, 1975, p. 8; USDA, *Foreign Agricultural Circular* (September 19, 1977), p. 2.

1. Based on carry-over stocks of grain at beginning of crop year in individual countries for year shown. Stocks include those held by both exporting and importing countries.
2. Authors' estimate.

Comparing Table 3 with Table 1 indicates that the price of wheat mounted in 1973 and 1974 as supplies tightened and, most dramatically, *as the stocks of exporters declined*.

Table 3 Wheat in world trade

WHEAT PAST CARRYOVERS (MILLION METRIC TONS)

<i>Year</i>	<i>Exporting countries beginning stock</i>	<i>Working¹ stocks</i>	<i>Total export use</i>	<i>Beginning stock as % of total use</i>
Av. 60/61-70/71	42.7	10.4	68.3	.64
71/72	44.4	12.6	75.5	.59
72/73	41.4	12.8	88.3	.47

73/74	22.7	15.0	82.3	.28
74/75	19.8	14.0	80.5	.25

75/76	22.3	13.7	87.1	.26

Source: International Food Policy Research Institute, communication with Barbara Huddleston.

1. Stocks committed to specific future uses and hence unavailable for alternative allocations.

World prices became most extreme in 1974 (the first half of 1974 to be exact)³ when they peaked at postwar highs, nearly four times above 1968 levels. Although world reserves fell to a two-decade low—where the world held only thirty-three days consumption of grain in storage—actual stock scarcity conditions among exporters became less severe by the end of 1974 and succeeding years. But, as of 1976, world reserves (Table 2) were still critically low. There had been no replacement of importers' reserves and the import-dependent world was still eating largely from month to month. During 1977, with production at or above trend for the second year, surpluses began to build, especially among exporters. But how these will affect the per capita food available globally, currently or in the future, is uncertain.

The years 1972–75, then, are benchmarks in the analysis of global food problems. By hindsight, their greatest significance lies in the fact that they prompted a long overdue and sober analysis of the global food system. It must be borne in mind, however, that regardless of the apparent uniqueness of contributing factors, short ages in 1973 and 1974 fundamentally reflected the global growth in demand for food stimulated by rapidly expanding population. Scarcities in export-import markets in 1973 and 1974 were extraordinary only as regards their unprecedented severity. Improvements in supply conditions since 1975 by no means suggest that food scarcity is on the way to being overcome, either in world trade or in poor countries.

Tables 4 and 5 depict some longer-run developments in the global food system. They dramatically document growing demands upon the stocks of food exporters as

Table 4 The changing pattern of world grain trade, 1934–1938 to 1976¹

<i>Region</i>	<i>1934–38</i>	<i>1948–52</i>	<i>1960</i>	<i>1970</i>	<i>1972–73</i>	<i>1976²</i>
(MILLION METRIC TONS)						
North America	5	23	39	56	89	94
Latin America	9	1	0	4	-3	-3
Western Europe	-24	-22	-25	-30	-18	-17
E. Europe & USSR	5	—	0	0	-26	-27
Africa	1	0	-2	-5	-1	-10
Asia ³	2	-6	-17	-37	-38	-47
Australia & N.Z.	3	3	6	12	7	8

Note: Positive numbers indicate net exports; negative numbers indicate net imports.

1. Figures derived from Lester Brown, Table 1.2, p. 11, and *Potential Implications of Trends in World Population, Food Production and Climate*, OPR-401, United States Central Intelligence Agency, Washington, August, 1974, p. 15.

2. Preliminary estimates of fiscal year data.

3. Includes Japan and Asian Communist Countries.

Table 5 Net cereal deficits in less developed regions¹

(MILLION METRIC TONS)

<i>Region</i>	<i>Actual aver. 1969-71</i>	<i>Actual 1974-75</i>	<i>Projected² 1990</i>
Asia	8.3	15.1 ⁴	41.2 ⁴
N. Africa/Middle East	7.9	12.0	29.7
Sub-Sahara Africa	1.5	2.1	23.9
Latin America	(1.0) ³	4.2	(8.4)
Total	16.7	33.4	86.4

Source: Based on data presented in, *Meeting Food Needs in the Developing World*, International Food Policy Research Institute, Research Report #1, (Washington: February, 1976), p. 27; and "Food Needs of Developing Countries," Nathan Koffsky, Annex, April, 1977 (mimeo, IFPRI).

1. Figures represent net deficits—i.e., larger gross deficits minus the predicted surpluses of potential exporting countries in the region.
2. Projected on the basis of 1960-1974 production trend in cereals which averaged 2.5% per year; consumption projected on the basis of assumed population growth, income growth and income elasticities of demand for food grain and feed grain. Income assumptions that produced the projections in this table reflect "low growth" variants (between 1.5 and 2%/year); if higher economic growth occurred, the projected demand and the consequent size of the deficits would be even larger (unless *growth* in production increased, growth already higher than in developed countries).
3. Parentheses indicate net surpluses for region. Argentina is projected to remain a net exporter and Brazil will become a net exporter by 1990.
4. Developing market economies only. Excludes Japan and Asian Communist Countries.

(1) an increasing number of countries have had to turn to imports to feed their populations and (2) the degree of external dependence of importing states has also increased during the last two decades.

The period from roughly 1950 to the present has witnessed a dramatic shift toward world dependency (especially Asian) upon North American grain surpluses, and this, hypothetically speaking, is projected to increase even more dramatically over the next ten to fifteen years.⁴ We say "hypothetically" because projections of North American output suggest that export supplies will not be available to meet import demands to the end of the next decade, except at higher levels of prices (and correspondingly reduced demand), unless the growth of population and income in less developed countries is reduced and rates of growth in food production in these countries are raised dramatically. Even if high prices should push back demand, such a textbook "equilibrium" adjustment would not signal a solution to the problem of food scarcity. Indeed, it would most likely signal mounting hunger among the poorest people in the poorest countries.

In addition to the food import needs of the less developed world, projected to

⁴See USDA, *The World Food Situation and Prospects to 1985* (Washington: United States Department of Agriculture, 1974), and Lester Brown, "The World Food Prospect," *Science* (Dec. 12, 1975): 1053-59.

be at least 86.4 million tons in 1990 (Table 5), import demand over the next several years will be increased by the growing needs of customers such as Japan, Western Europe and the Soviet Union, unless these countries manage major strides in the direction of self-sufficiency. By a conservative estimate, needs in these areas will climb from 30-40 million tons in 1972-76 to the neighborhood of 45 million tons of food and feed grains in 1985.⁵ It should also be noted that the "Asian" figures in Table 4 probably do not properly anticipate Mainland China's possible emergence as a major food importer. The expansion of China's agricultural production is estimated at between 2 and 2.69 percent per annum. While this rate has remained constant for several years and may be keeping pace with population growth, the instability of weather conditions in China would suggest at least some occasional severe shortages.

As noted, the growth of demand for foodstuffs world wide is largely attributable to rapid population growth, especially in Asia and Africa. But heightened demand is also linked to shifts toward higher protein diets in more affluent countries. In food deficit and poor countries population growth remains rapid, ranging from 2.0 to 3.5 percent last year. By contrast food production in these countries as a group has averaged 2.9 percent per year for the past fifteen years, and declined to 1.7 percent in the early 1970s.⁶ For Bangladesh to be self-sufficient by 1990 her food production growth rate would need to rise from 1.5 percent to 4.5 percent for the next twelve years. Even if bumper crops produced in South Asia in 1975 and 1976 were to continue, scarcities in that region would be likely to persist. The dramatic 1975-77 rise in grain production in South Asia put the region back near its longer-run trend of yearly increase. But, even at this level, output in the region remains one to three percent below what is needed for meeting domestic economic demand for food. As expanding population threatens food supplies in poorer countries, consumers in industrialized countries, notably in the United States, Japan and Western Europe and recently in the Soviet Union, are buying more meat, thus inflating global demands for feed grains. As economic development progresses in parts of the Third World there is good reason to believe that further shifts to meat diets will occur, at least among the more privileged classes.

Given projected uncertainties in export supplies over the next decade, estimates of the capacities of deficit countries to increase domestic production become important and revealing. Unfortunately, many of these assessments are rather pessimistic for a variety of reasons. Some analysts, for example, cite the rising ecological problems that will accompany the use of more land for crops, and more intensive use of fertilizers and other agro-chemicals.⁷ Others point out that diminishing returns from land-saving technologies are already being encountered, that marginal

⁵International Food Policy Research Institute, *Meeting Food Needs in the Developing World*, Research Report #1 (Washington: IFPRI, February 1976).

⁶*Ibid.*, p. 13.

⁷Eric Eckholm, *Losing Ground: Environmental Stress and World Food Prospects* (New York: Norton, 1976).

land brought into production is frequently ruined by erosion or desertification in short order, and that rising relative prices for energy and other basic input resources point to a tightening supply situation (current oversupply notwithstanding). In addition, there has been a marked secular decline in funding of basic agronomic research in the United States and elsewhere, and some experts at least, suggest that this may have ushered in a levelling in the growth of output that is irreversible in the short run.⁸ Recent initiatives in funding for agricultural development are encouraging, but their impact will be felt only over the longer run.

Despite the notable pessimism, however, it is fair to say that the preponderance of those who have looked into production problems in agriculture can identify adequate capacity in the years ahead to meet growing demands, including demands based on a desire for better diets. Notably, the capacity in question is the capacity of less developed countries to increase *domestic* production. But this will only be realized if research and technology gains are acted upon, if requisite investments are made, and if all other varieties of output-enhancing opportunity are grasped. For several less developed countries, including those discussed by Nicholson and Esseks, this means stemming declining rates of growth of domestic food production. For others it means pushing agricultural growth rates toward four or five or six percent per year. Even if such optimistic production potentials were approached, instability and occasional acute shortages are likely as long as sizable, readily distributable reserves do not exist.

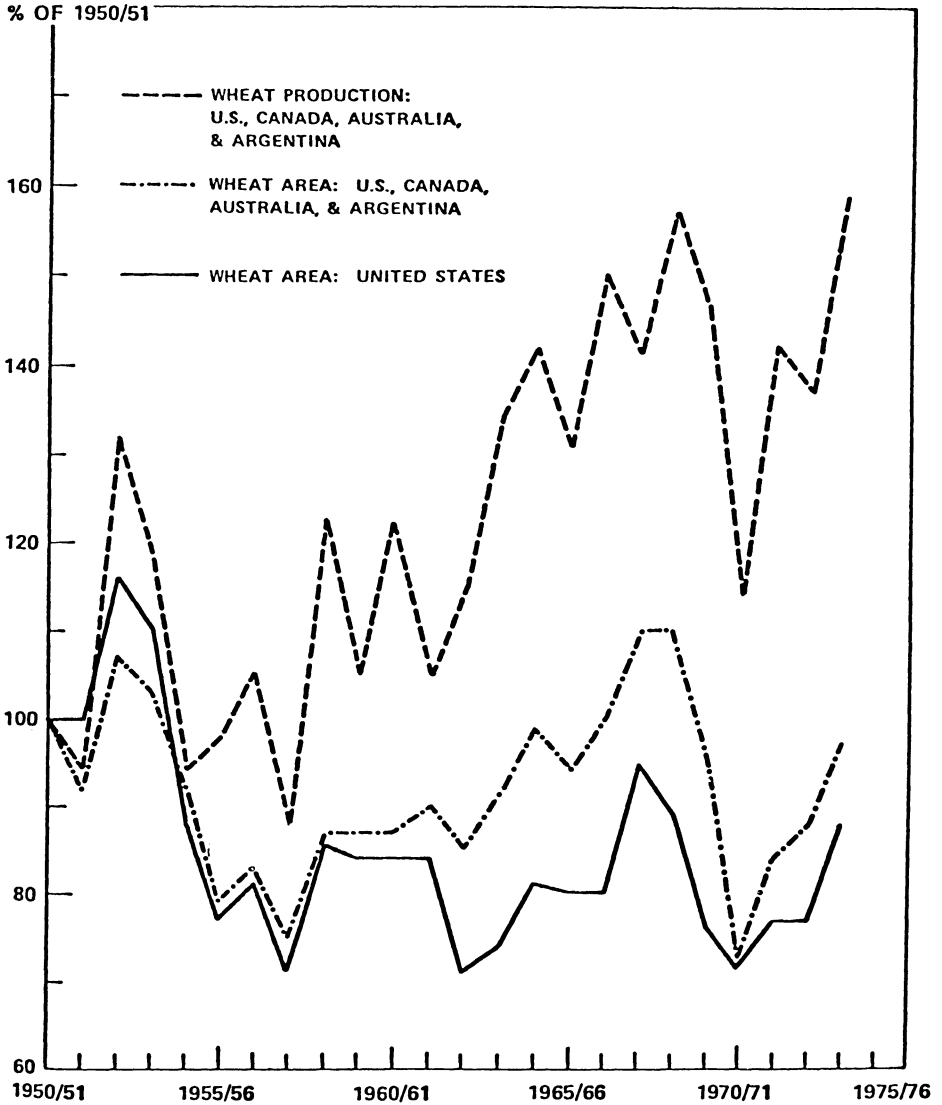
Instability

Instability marked by extreme and erratic fluctuations in commodity prices has come to characterize and confuse international agricultural markets in recent years. Price instability tends to skew rewards from market participation toward those participants who can best afford to speculate. Conversely, it imposes penalties from market dependence on those who can least easily and least quickly adjust to fluctuation, namely lower income countries in general and lower income consumers in particular. Beyond adjustment effects, fluctuating world food prices also tend to wreak havoc with public and private economic planning, again, most notably in less developed countries where planners must estimate food costs in their national development plans.

One can look at the global food problem in terms of conditions of increasing scarcity, as we did in the previous section. But, in addition, one can also view the problem in terms of fluctuations or deviations around the basic trend lines. From the latter perspective what we observe is that global supplies of foodstuffs fluctuate markedly and erratically from year to year due mainly to changing weather conditions, variations in farmers' planting strategies, and government-promoted incen-

⁸James G. Horsfall and Charles R. Frink, "Perspective on Agriculture's Future: Rising Costs — Rising Doubts" (unpublished paper presented at Symposium on Limits to Growth, University of Connecticut, October 21, 1975).

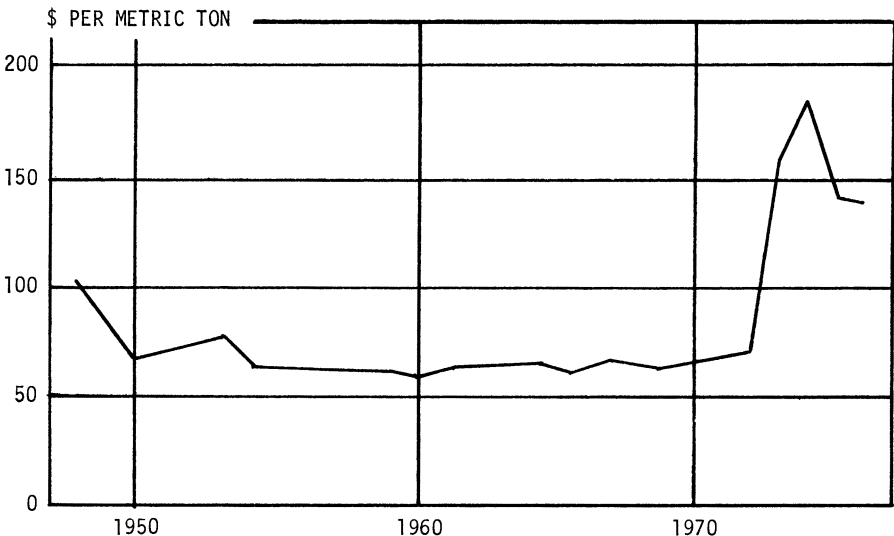
Figure 1. Wheat area and production in the United States, Canada, Australia, and Argentina



Source: USDA, *The World Food Situation and Prospects to 1985*, p. 23.

tives and disincentives. But until very recently, major fluctuations in production have prompted only minor changes in price due to the fact that during the 1950s and 1960s the United States and Canada accumulated large reserves in periods of surplus and were able to release them in periods of shortage, thus buffering price shifts. They acted in a duopolistic manner to manage international grain markets. But large public reserves no longer exist, and North American policies no longer encourage their accumulation. Therefore, unless policies and capacities change, we have a situation wherein even mild shifts (less than 2 percent) in world supply can and do bring about abrupt and extreme fluctuations in price. Figures 1 and 2, charting conditions in the wheat market, illustrate our points concerning changing relationships between shifts in supply and fluctuations in price. Observe in Figure 1 how outputs of wheat in the major exporting countries have varied in the past two decades (due in large measure to changes in planting related to variations in government support policies). By contrast, note in Figure 2 how prices remained relatively (indeed remarkably) stable through the 1950s and 1960s, despite the varying supply conditions, and then how they moved rapidly upward in the early 1970s. The price rise is accounted for by the elimination of publicly held reserves, aggravated by the onset of worldwide inflation and the tightening of international supplies discussed in the previous section. As already shown in Table 1, prices continued to fluctuate erratically from 1972/73 onward (jumping approximately 300 percent on the average between 1973 and 1974, when world production dropped by roughly 4 percent from trend, and then later dropping by approximately 20 percent

Figure 2. World Export Unit Values for Wheat, 1948–1976



Source: USDA, *The World Food Situation and Prospects to 1985*, p. 25, for years 1948–1972; FAO, *FAO Commodity Review and Outlook, 1975–76*, Figure 1, p. 10, for years 1973–1976, estimated yearly average U.S. No. 2, for years 1973–1975, projected yearly average for 1976.

between 1975 and 1976, when world production increased by roughly 9 percent.⁹ This, of course, is in great contrast to the 1950s and 1960s, in which increases or decreases in production of up to 35 percent resulted in price changes of only two to three percent.

Price instability in international food markets exacerbates hunger in a number of ways. For one thing instability created by shortages can lead to “windfall” profits for those who control supplies, especially when prices rise far above levels needed to stimulate additional production. In such cases the extraordinary profits constitute largely a tax on consumers by producers. Within some states these excess gains are captured by grain dealers (private or public), credit agencies and other intermediaries rather than by farmers. When supplies are in excess, producers suffer as prices plummet. Marginal producers facing such market forces can be wiped out; supplies, moreover, may drop more than needed to adjust to the market and a new cycle of instability follows.

Second, and equally important, excessive fluctuations in commodity prices undermine planning, both for individual farmers and for import-dependent states. In selecting the most profitable (and efficient) crop or mix of crops a farmer must estimate the prices he is likely to receive. When these fluctuate widely, rational decisions about planting are impossible. Similarly, development planners in most developing countries can see their efforts rendered useless when food prices fluctuate widely, drawing off funds for development to pay for expensive imports *or*, when their countries are producers, excessively rewarding or punishing their rural sector. Government marketing boards and controls on agricultural prices through tariffs and domestic price supports are common buffers used in Europe and many developing countries to alleviate price instability by insulating producers, consumers or both from market extremities. Seevers, in his essay below, discusses such practices under the rubric “market separation.” When such devices work well, they transfer the costs of adjusting to price fluctuations onto national treasuries, directly or ultimately at the expense of public policy goals or taxpayers’ pocketbooks. In addition, evidence from less developed countries suggests that market intervention programs are poorly or corruptly managed. As a result, they do not stabilize income, they seldom stabilize prices of agricultural inputs such as fertilizers (which also fluctuate widely and particularly at times of food price fluctuation), they often act as revenue-raising or income subsidizing rather than stabilizing devices, and they tend to keep acting after necessities for intervention have eased. The problematic record of market separation notwithstanding, public authorities can be expected to continue such practices, not only in the expectation that wide and erratic price fluctuations will continue in international food markets, but also because they are intimately linked to domestic politics.¹⁰

⁹FAO, p. 23 for production figures for 1973–74 and estimates for 1975–76.

¹⁰Peter Katzenstein, “International Interdependence: Some Long-Term Trends and Recent Changes,” *International Organization*, Vol. 29, No. 4 (Autumn 1975): 1021–34.

In developed food exporting countries large fluctuations in prices and export demands stimulate political discontent among farmers, as currently in the United States and recurrently in several Common Market countries. On the other hand, in food importing developed countries, fluctuating prices tend to raise fears about availability of supply and to provoke political problems accordingly. Although as Johnson argues below some price instability may be beneficial as it signals changing supply conditions and often prompts market-adjusting behavior, recent price instability seems to have exceeded what might theoretically be beneficial to the matching of international supply and demand.¹¹

Security of food imports

Food imports in many poor countries have become a chronically recurring "crisis." Food is transferred internationally via two channels: trade and aid. Both of these channels have become less reliable sources of supply. Price inflation in food-stuffs and competing demand from industrialized importing countries such as Japan and the Soviet Union limits LDC access to the international commercial system. Industrial countries' willingness to extend aid, which has fluctuated more according to both domestic and international political expediencies than to needs for food, similarly constrains LDC access to the international concessional system. What periodically changes this import problem into an import crisis is that many of the most populous less developed countries, notably India and Bangladesh, possess extremely limited capacities to adjust to internal shortfalls. Periodically, internal crop failures and the absence of internal reserves leave imports as the only difference between meager diets and starvation. If such imports are not obtainable at crucial times, famine or near famine conditions ensue with their attendant national and international political disruptions. In Africa, for example, successful coups in Niger and Ethiopia were directly related to drought and famine, and the whole Sahelian region suffered turmoil with international dimensions. Needless to say, even the threat that imports will not be available when needed breeds tension and insecurity, as illustrated by the role of food in Japanese-American diplomacy.

For reasons already discussed imports of food cannot be the solution, at least not alone, to longer term scarcity problems of food deficit LDCs. Clearly, if the supply and demand projections discussed earlier are at all reliable, it is unlikely that adequate supplies will be available on future world markets. There simply will not be enough food to meet importers' demand even if exporters increase production to predicted maximums! Least of all, under these conditions, will very much food be available on concessional terms. In addition, it has been argued with some merit that food imports, and especially those that came gratis or on concessional terms, have aggravated poorer countries' development problems. They add to long-term debt,

¹¹Odin Knudsen and Andrew Parnes, *Trade Instability and Economic Development: An Empirical Study* (Lexington Mass.: Lexington Books, 1975). These authors point out that export instability, on balance, encourages economic development and that some degree of instability is probably desirable.

they often encourage the continuation of policies emphasizing urban industrialization that were responsible for inadequate food production in the first place, and they tend to encourage tastes and food consumption preferences that lead to continuing dependency upon imports. Nevertheless, regardless of the second best solution that concessional imports represent, some guarantee of food supplies or food aid will certainly be needed by deficit states in the foreseeable future.¹² Otherwise supply crises will recur, and, at the very least, these will cloud and confuse rational efforts toward internal development.

Low productivity and poverty

Low productivity and poverty plague millions of the world's populace engaged in agriculture, a point made both forcefully and compassionately in Cheryl Christensen's contribution to this volume. The rural populations of the less developed countries, constituting 60 to 90 percent of these nations' peoples, account for more than half of the world's population. As a rural labor force they are a key potential resource for greater food production. In addition, of course, these poor people are in most need of more and better food. Their low productivity is at the heart of the supply side of the world food problem.

We cannot explore the problems of rural underdevelopment in any depth; they are beyond the scope and intent of this volume. To say the least, the problems are immense, their manifestations are almost as varied as the peoples and institutions of the Third World, the literature on these problems is voluminous, and prescriptions for their solution are numberless.¹³ In the most general way, it could be said that low productivities in peasant agriculture in Asia, Africa and Latin America follow basically from the underemployment of land and labor. Technologies that would heighten the productivities of these factors are often not available. But, more fundamentally what are lacking are educational facilities and sources of credit that would enable farmers to use more productive technologies and markets that would offer inducements to technological innovation.

Still, to look at problems of rural underdevelopment simply in terms of standard economic categories is to treat them superficially. Broader and deeper questions have to do with why backwardness often perpetuates itself when knowledge, and sometimes even capital, are available to overcome it. The search for answers to such questions leads one to explore the social, economic and political factors inside underproducing countries, and the international context within which these factors

¹²All USDA and FAO projections tend to agree on this point.

¹³Bruce F. Johnston and Peter Kilby, *Agriculture and Structural Transformation* (New York: Oxford University Press, 1975); Guy Hunter, *Modernizing Peasant Societies* (New York and London: Oxford University Press, 1969); Yujiro Hayami and Vernon Ruttan, *Agricultural Development: An International Perspective* (Baltimore: Johns Hopkins Press, 1971); Herman Southworth and Bruce Johnston, eds., *Agricultural Development and Economic Growth* (Ithaca: Cornell University Press, 1967); Keith Griffin, *Underdevelopment in Spanish America* (Cambridge: M.I.T. Press, 1969); Keith Griffin, *The Political Economy of Agrarian Change* (Cambridge: Harvard University Press, 1974).

exist. One needs to ask rather sensitive questions about who benefits from things as they are and who would stand to gain or lose economically, politically or otherwise if agricultural modernization were actually to come about. Although it is dangerous to generalize, politically powerful traditional elements in less developed countries who oppose land reform or other rationalizations of holdings are often major obstacles to rural development. There are other obstacles. For instance, modernizing elite factions usually prefer urban industrialization to investing scarce capital in agriculture; credit institutions (indigenous and international) balk at the high risks and uncertain outcomes in rural sector investments; and private and public agencies in developed countries see their interests challenged by the emergence of food processing industries in LDCs which would help to bring peasant agriculture into the cash economy. One could go on to cite even more unsavory obstacles to rural development such as programmatic racism and ethnic repression. At its crux, the problem is usually political, and the sad commentary is that peasants tend to be politically powerless.

Some forces do push vigorously for rural modernization and increased productivity in LDCs, and on balance the situation is not totally discouraging. The contribution by Nicholson and Esseks below offers a rather positive assessment of some LDC efforts at agricultural modernization. In addition, as Austin and others point out, international institutions such as the World Bank, the Organization of Economic and Community Development and the European Communities (EC) have lately begun encouraging greater attention to agricultural modernization and attempting to gear their aid strategies accordingly. The United States Agency for International Development (USAID) also has been involved in this task for many years with comparatively increased efforts in the 1970s. Still, given the decline in per capita real aid flows over the last decade, progress toward heightened peasant productivity is likely to be slow and halting in years ahead, perhaps too slow and too halting to meet scarcity crises projected for the 1980s. Ironically too, given the meager diets of rural populations in less developed countries, most of these people constitute an enormous latent demand for food. Should they achieve increased productivity, increased demand would accompany it. For this reason, expanding output of such poor farmers is not an important threat to developed country export interests in agriculture.

Malnutrition

Malnutrition is both the most general and the most basic world food problem. By shifting attention from production and aggregate distribution problems to the actual consumption of food, the most intractable elements of world food problems are revealed. These are dramatized by Austin's contribution to this volume. Malnutrition, estimated to afflict between one half and one billion people, is substantially a product of poverty.¹⁴ People generally suffer from protein and/or caloric deficien-

¹⁴Overconsumption is also a form of malnutrition. It is not, however, a concern of this volume.

cies because they or their families cannot afford more or better food. The inequality of income that determines undernourishment is an international problem, as illustrated by low daily calorie intakes in Africa, Asia and Latin America. For instance, the average calorie intake of Brazilians in 1964–66 was adequate in aggregate statistical terms, but 44 percent of the Brazilian population was probably malnourished.¹⁵ Malnutrition deserves special attention not only because it is so widespread, but because different targets and different institutions are required to solve it than rather simply to raise productivity. Poor farmers and poor urban workers are debilitated by the effects of malnutrition. High underemployment and unemployment in poor countries may reflect the weakened health and low energy levels of undernourished people, and, to close a vicious circle, undernourished people are naturally the products of under- and unemployment. Even with successful steps to increase the aggregate amount of food available in the world and in each food deficit country, chronic malnutrition with its long-run debilitation of human capacities may continue largely unabated.¹⁶

Global nutrition problems have been the subject of concrete efforts by national and international groups, including church groups, foundations, development banks, ministries responsible for overseas aid and foreign trade, and US agencies. Political pressure for even greater efforts has been generated by numerous voluntary associations in developed states and by Third-World lobbying for the New International Economic Order, as at the 1977 FAO Conference. But so far, pressure has been diffusely targeted at a problem with no self-evident solution and has had little real impact on actually reducing malnutrition.

Food systems and food regimes

While the nature and severity of world food problems provide the context for the analyses contained in this volume, the focus of our collective effort is upon the international relations of food. There is presently, and has been for some time, an active international diplomacy of food affairs—communication among governments about food and agricultural issues, proliferating international organizations and bureaucracies concerned with food questions, countless international meetings and conferences, a good deal of official buying and selling, and all manner of bargaining with regard to commodities, money and technology. Paralleling these public activities are broad ranges of private venturings into international food affairs, from marketing to investing, to education and lobbying, to humanitarian projects of impressive scope. But, what exactly has been the impact of all this? Are peoples

¹⁵See FAO, *Assessment of The World Food Situation*, (Rome: FAO, 1974), pp. 49–50, and Shlomo Reutlinger and Marcelo Selowsky, *Undernourishment and Poverty*, International Bank for Reconstruction and Development, Bank Staff Working Paper no. 202 (Washington: IBRD, April, 1975).

¹⁶For a general review of malnutrition, see, James Austin, “Attacking the Malnutrition Problem,” (unpublished paper presented at the Conference of the Institute for the Study of Human Development, Madrid, Spain, September, 1975). See also Austin’s contribution to this volume.

better fed because of it? Might they be better fed without it? Or, do we have here a case of the proverbial "sound and fury," signifying very little?

Our volume is designed to explore the effects of the contemporary international relations of food upon human welfare, most notably nutritional well-being. We are not agronomists, hydrologists, biologists or other technical specialists in the agricultural sciences, and we therefore do not claim insights or aspire to new knowledge in matters of making things grow better, faster and in greater quantity. Here, we can but acknowledge the findings of colleagues in other disciplines and their implications. As social scientists, we begin from the assumption that food systems are social systems as much as they are biological ones, and food problems are political and institutional as much as they are agricultural. Food production, distribution and consumption are purposeful acts, following implicitly or explicitly from calculated decisions taken within the contexts of formal or informal social institutions. Understanding such decisions within such contexts is essential to understanding food systems and their impact upon human welfare. Much of the work contained in the essays to follow was informed, and guided, by these assumptions; much was also based on a common set of analytical concepts which it will be useful to make explicit.

First, throughout the volume the concept "global food system" is rather narrowly defined. It has been necessary to specify carefully this concept because it embodies many of our dependent variables, i.e., the outcomes we are trying to understand. Therefore, regardless of what the term "global food system" might mean in other contexts, here it refers to *three interconnected functions—production, distribution and consumption—and to their means of interconnectedness via public and private transactions*. By "transactions" we mean bargains or other manners of agreement that initiate flows of commodities, capital, information, technology or personnel. Such flows, of course, link production to distribution to consumption. Structurally, the global food system is composed of centers of production, centers of consumption and channels of distribution (and exchange). Typical centers are countries and regions and, as noted below, channels are commercial and concessional, public and private. It should be understood that most of the transactions that constitute characteristic patterns in the production, distribution and consumption of food at given times are not international transactions (as most food is produced with local inputs and consumed domestically) but some important ones are. These international transactions are of prime analytical interest to the contributors to this volume, both as important characteristics of the global food system and as factors affecting non-international patterns. Food aid, for example, has been frequently cited as an important factor depressing production in recipient countries.¹⁷

Of central importance to our collective study is the assumption that conditions prevailing in the global food system occur neither haphazardly nor entirely in

¹⁷Theodore W. Schultz, "Value of U.S. Farm Surpluses to Underdeveloped Countries," *Journal of Farm Economics*, Vol. 42 (December 1960): 1028-9, and Clifford R. Kern, "Looking a Gift Horse in the Mouth: The Economics of Food Aid Programs," *Political Science Quarterly*, Vol. 8 (March 1968): 59-75.

response to agronomic or economic imperatives. Rather, they occur because people make decisions about production, distribution and consumption that accord with commonly accepted and widely prevailing norms which lend legitimacy to certain practices and declare others illegitimate. Sets of such guiding norms prevailing at given times constitute *regimes*. We find the concepts “regime” and “global food regime” particularly useful analytically and use them consistently throughout the volume. A regime is *a set of rules, norms or institutional expectations that govern a social system*. Govern, in the sense we use it, means to *control, regulate or otherwise lend order, continuity or predictability*. We assume that there is a global food regime that governs the global food system, and we shall attempt to demonstrate in this volume that a specifiable regime has governed international aspects of the food system for some time. Furthermore, we believe that it can be shown that the food regime governs the food system because regime norms influence the transactions which determine the system. That is, the international relations of food affairs are by and large conducted within normative parameters which prescribe certain kinds of transactions and proscribe others. Some norms are formal rules or laws, others exist as informal but institutionalized expectations. Together they influence practices which in turn shape the general behavior of the system as adjustments occur among various parts of the food system to particular actions fostered or tolerated by the regime. Empirically speaking, the existence and nature of the regime is observable in such events as (1) the intensities and directions of flows of food-related transactions among regime participants; (2) the agendas, manifest and latent, of forums where food issues are discussed; (3) the patterns of allocation of public and private resources for solving food problems; (4) the patterns of outcome, recommendation, institutionalization and practice reflected in the results of public and private food diplomacy; and (5) the rhetoric, both supportive and critical, of participants.

The usefulness of the “regime” concept is as much in the kinds of questions it raises as in the order it lends to analysis. For example, if indeed there is such a thing as a global food regime which consists of hundreds of specific rules and norms that guide international decisions about food transactions, what in fact are these rules and norms? What are their principal features and what principles seem to underlie them? Furthermore, where, when and how do they originate? How and by whom or what are they maintained or enforced? To what extent are they consistent, coherent and valued (and hence likely to be heavily institutionalized)? When, why and how do they change? Most significant, perhaps, what kind of global food system do regime norms create? In this last respect it is important to ask and answer questions about the ways in which the global food regime affects participants in the global food system, i.e., those individuals, organizations and populations that either produce, consume and distribute food or directly affect these processes. The regime could affect participants in the system by affecting the values they derive from participation. These might include wealth, power, autonomy, community, nutritional well-being, aesthetic satisfaction in eating and sometimes physical survival. Since any regime conditions the distribution of such values among participants,

usually in some skewed fashion, it is important to inquire into the ways that particular regimes condition particular distributions. A good deal of the analysis in this volume pursues such issues.

Readers moving progressively from chapter to chapter will observe the emergence of a comprehensive picture of the global food system. The system appears decentralized into national subsystems where most production, consumption and exchange take place, though still heavily affected by international transactions. In its international aspects the global food system is bifurcated along two dimensions. First, it is clearly divided into surplus and deficit producing countries, that is, exporters and importers, and the dependence of the latter upon the former is apparently increasing (which is not to deny that there are elements of reciprocal dependence in the relationship). Moreover, as Table 6 shows, exporting developed countries are also much heavier grain consumers than are developing country importers, because they consume a large share of grain through feed for animals.

Table 6 Annual grain consumption by main uses, 1970–1990

	ACTUAL CONSUMPTION		PROJECTED DEMAND ¹	
	1970	1980	1985	1990
Developed Countries		(Million Tons)		
Food	160.9	163.1	164.1	164.6
Feed	371.5	467.9	522.7	565.7
Other Uses	84.9	100.6	109.5	116.4
Total	617.3	731.6	796.3	846.7
Per Capita	576	(Kilograms)		663
Developing Market Economies		(Million Tons)		
Food	303.7	409.3	474.5	547.2
Feed	35.6	60.9	78.6	101.9
Other Uses	46.4	64.1	75.4	88.5
Total	385.7	534.3	628.5	737.6
Per Capita	220	(Kilograms)		246
Developing Centrally Planned Economies		(Million Tons)		
Food	164.1	200.5	215.2	225.3
Feed	15.3	38.7	48.7	61.4
Other Uses	24.6	32.6	36.0	39.1
Total	204.0	271.8	299.9	325.8
Per Capita	257	(Kilograms)		304

1. FAO projections based on "trend" GDP growth and U.S. "medium" population projections. Source: In *Overseas Development Council (1977) The United States and World Development Agenda* (New York: Praeger Publishers), p. 184; adapted by the ODC from: *Food and Agriculture Organization of the US (1975) Population, Food Supply and Agricultural Development* (Rome: FAO), p. 28.

Second, two networks of transactions link producing countries to consuming countries: a commercial network of sellers and buyers and a concessional network of donors and recipients. Commercial channels carry the bulk of food through the food system, as well as the inputs for growing it, and these channels primarily link North America to Europe, Japan, Korea and Taiwan, and recently the USSR and China. Concessional channels run mainly in North-South directions and remain crucial to less developed countries which lack the financial resources to meet all their needs in commercial exchanges. Production, distribution and consumption patterns in the global food system are markedly skewed; the populations in wealthy industrialized countries and the wealthy in some less developed countries are distinctly privileged. The global food system, overall, is inadequate to the needs and aspirations of many of its participants, and these multiple inadequacies, as explained above, are the causes of "world food problems."

Both the nature and the inadequacies of the global food system are influenced but not fully determined by the contemporary global food regime. This regime, as regards the international relations of food, has been American centered and prescribed, and based principally upon national government actions. To some extent it has relied upon multinational enterprises, private interest groups, and formal international organizations to enforce its rules and norms. The regime was fairly stable and institutionalized from the late 1940s until the early 1970s, during which time participants had complementary, congruent, and usually accurate expectations about relationships between their transactions and systemic outcomes.

Norms that guided (and constrained) the international relations of food from the late forties to the early seventies can be grouped into at least eight sets of principles.

1. *Respect for the free market.* Most major participants in the international diplomacy of food between 1948 and 1972 adhered to the belief that a properly functioning free market would be the most efficient allocator of globally traded food commodities and agricultural inputs. They therefore advocated such a market, aspired towards it, at least in rhetoric, and assessed food affairs in terms of free market models. Actual practice deviated rather markedly from free trade ideals.

In fact, cynics might want to suggest that the principle under discussion here could better be labelled, "talk about free trade, but practice mercantilism." Canada and the U.S. have been described as alternate price leaders in a North American duopoly during the 1960s. Yet, whatever the practice, free trade, anti-monopoly ideals remained so strong that deviators were continually compelled to explain and justify their behavior, and such inquiry and defense provided the making for endless debate within international institutions such as the Food and Agriculture Organization (FAO) and the International Wheat Council.¹⁸ Allowing for the impact of the social-political factors that render international market reality different from the ideal of economic theory, a case can be made that food flows through the interna-

¹⁸Jonathan Barker, "Peasants Under Capitalism" (unpublished paper given at the International Studies Association Meetings, March 15, 1977).

tional commercial system did in fact reflect norms maintaining free market aspirations during the postwar era. Seevers' analysis below fits such an interpretation and advances the widely held argument that "perfecting" markets would have a benign impact upon the global food system. Christensen accepts the realities of "market" norms but criticizes their impact on the food system.

2. *National absorption of adjustments imposed by international markets.* As indicated, relative price stability in international food markets obtained during much of the postwar era and can be accounted for in large measure by American (and to a lesser extent Canadian) willingness to accumulate reserves in times of market surplus and to release these, commercially and concessionally, in times of tightness. Such North American behavior made the international market a much more predictable and acceptable food allocator than it might otherwise have been, and as a result free market norms of access and information were fortified. Still, it must be underlined that it was a rule of the food regime that North America would adjust domestically in the interest of domestic and international price stability and stable market shares, and that it would do this over and over again. Further, both American and Canadian participants in global food affairs carried out adjustments that served these *de facto* norms of market stability without much dissent from overseas or at home.

3. *Qualified acceptance of extra-market channels of food distribution.* Food aid on a continuing basis and as an instrument both of national policy and international program became an accepted part of the postwar food regime in the years following 1954. Heated debates took place over the price-cutting and surplus-dumping practices that followed the adoption of Public Law 480 (later the Food for Peace Program) in 1954. Eventually, multilateral concessional food transfers were legitimized by the United Nations World Food Program in 1962. Bilateral concessional flows were accepted under terms of the Food Aid Conventions that accompanied the international wheat agreements of the 1960s. Previously, acceptance of this practice had been limited to food emergencies such as those in Europe following both World War I and II. Otherwise exporters condemned food concessions as dumping and recipients occasionally sought side-payments for accepting such food. In a system of free-trade-oriented participants, acquiescence in extra-market distribution could be obtained only upon the stipulation that market distribution was to take precedence over extra-market distribution. More simply, it was acceptable to American and foreign producer/exporters to give food away as long as this did not reduce income or distort market shares. While this qualification implies consistency between the commercial and concessional norms of the food regime, in practice there has been a good deal of tension, even within the United States, and energetic efforts were made to use concessional transactions to create commercial markets.

4. *Avoidance of starvation.* The obligation to prevent starvation as an international norm was not novel to the postwar period; it derives from more remote times (although the international community's capacity actually to muster meaningful relief is recent). There has been and remains a prevailing consensus that famine situations are extraordinary and that they should be met by extraordinary means. To

fail to do would be gross immorality according to world-wide standards. Ironically, the attention to and strength of this norm may be increasing currently, at the very time that food reserves available for famine relief remain near their thirty-year low point.

5. *Free flow of scientific information.* There is some question about the analytical usefulness of labelling "free information" a norm of the global food regime because there has been great deviation from it in practice. Whereas most of the other norms discussed here emerged and prevailed during the postwar era largely because of American advocacy and practice, "free information" emerged in spite of American misgivings. "Freedom of information" about the results of agricultural research was a principle nurtured by the United Nations Food and Agricultural Organization and welcomed by those seeking modern technologies for agricultural development. In these ways this principle upheld norms for disclosure for the global food regime. On the other hand, American commercial practice, both public and private, was to protect certain information for market advantage. As long as the United States adhered to these practices the global flow of scientific information about agriculture was impaired. Many recent developments suggest, however, that American attitudes and practices with regard to disseminating scientific information have changed. However, many countries, notably the Soviet Union, have never accepted the principle of free information, at least with respect to "timely" (for them strategic) information.

6. *Low priority for national food self-reliance.* Partly because the global food system of the past thirty years was perceived by most participants as one of relative abundance, and partly because of international divisions of labor implicit in free trade philosophies, autarky was not accepted as a norm of the global food regime. Quite the contrary was in fact the case. External sources of supply were accepted as dependable. Markets were accepted as stable. Aid was available both to those who would exchange political allegiance for food, and to those who threatened political deviation if food was withheld. There were, in general, low perceived risks in dependence. Most Communist countries, of course, rejected this principle of "agricultural dependence" in favor of agricultural development and internal adjustments. But the majority of other participants in the global food system acquiesced.

7. *Lack of concern for chronic hunger.* That international transactions in food should be addressed to alleviating hunger and malnutrition, or that these concerns should take priority over other goals, such as profit maximization, market stability or political gains, were notions somewhat alien to the global food regime of the postwar era. This is not to say that some individuals and organizations were not at work combatting malnutrition. But, in general, it was simply not a rule of international food diplomacy that hunger questions should be given high priority, or even that they should be raised if there were dangers of insulting friendly governments by doing so. As a result, relatively few resources were devoted to alleviating chronic malnutrition globally, and little concerted action was undertaken. Austin argues pointedly below that the result of this has been a continuing deterioration of nutri-

tional conditions among the world's poor in spite of small gains in per capita production.

8. *National sovereignty and the illegitimacy of external penetration.* It need hardly be pointed out that the global food system of the last thirty years functioned within the confines of the international political system, so that the norms governing the latter necessarily conditioned those of the food regime. Important among these was the general acceptance of the principle of national sovereignty; among the norms this supported was a tendency to define problems as those *between* states and a consequent proscription against international interference by one state in "domestic" affairs of another. In practice with regard to food this meant that production, distribution and consumption within the confines of national frontiers remained largely beyond the "legitimate" reach of the international community, even under famine conditions, as long as national governments chose to exclude the outside world, as Ethiopia did in 1973.¹⁹ In practice, this meant that many of the poorest and hungriest people of the world could not be reached via the distributive processes of the global food system. The world acquiesced because sovereignty was the norm, and hence the malnourishment of millions was not seen as a collective responsibility in any strong sense.

Some effects of the prevailing food regime upon the global food system during the postwar era are easily discernable. In setting and enforcing regime norms for commercial transactions, the U.S. worked out trading rules through bargaining and formal policy coordination with key importers and other exporters. Communist countries remained peripheral participants with their own rules within Comecon (when the Soviets were exporters), although they occasionally interacted with "western" food traders, playing by the rules when they did. World trade in foodstuffs attained unprecedented absolute levels, and North Americans became grain merchants to the world to unprecedented degrees. Through concessional transactions the major problems of oversupply and instability in the commercial markets were resolved. Surpluses were disposed of in ways that probably enhanced the prospects of subsequent commercial growth for major food suppliers. Especially with respect to grain trading, adherence to regime norms enhanced the wealth and power (i.e., market share and control) of major exporters, most notably farmers and trading firms in the United States. Also enhanced were the nutritional well-being and general standard of living of fairly broad cross-sections of populations within major commercial grain-importing countries. Adhering to regime norms, however, also encouraged interdependencies among exporters and importers which, over time, impeded the international autonomy and flexibility of both.

With regard to concessional food flows regime norms facilitated global humanitarianism and enhanced survival during shortfalls and famines, as in the Indian food shortage of 1965–67. But the norms contributed to huge gaps in living standards between richer countries and poorer ones, they helped to perpetuate large

¹⁹Jack Shepherd, *The Politics of Starvation* (New York: The Carnegie Endowment for International Peace, 1975).

gaps between the rich and poor within countries, and they failed to affect chronic nutritional inadequacies of poor people worldwide. By promoting transfers of certain types of production technology as well as foodstuffs, regime norms also contributed to diffusing more capital intensive farming, specialized rather than self-reliant crop choices, and a sharp rise in productivity (India, for example, doubled her production growth rate after 1950 compared to the historic trend in the first half of this century). One result has been cultural; expectations of people everywhere include a growing demand for "high income" food commodities, as for example wheat and meat, and a growing reliance upon high technology, high energy inputs. Over all, the food regime reflected, and probably reinforced, the global political-economic *status quo* that prevailed from the late 1940s to the early 1970s.

Later chapters of this volume suggest that the global food regime may be changing. For one thing many of the norms seem to be in question at present, either because they are unacceptable to increasingly powerful Third-World countries and coalitions, or because they are no longer acceptable to the United States. Free trade philosophies, for example, are under assault by exponents of the New International Economic Order. International market stability and open market access provided by domestic adjustments and practices in the United States are no longer guaranteed by the support of substantial political interests in this country. Other norms, such as the primacy of market development over economic assistance goals, are in question because participants widely recognize that adhering to them would exacerbate the whole range of world food problems. To take a case in point, almost no one any longer is discouraging national agricultural developments that enhance self-reliance in grain crops, and almost no one any longer is withholding scientific information or technical assistance that could further such agricultural development. Moreover, capital intensive technology is out of vogue; labor intensive techniques to provide rural populations with work are encouraged. To be sure, elements of carryover and continuity from the postwar regime persist, and rather intense international debate surrounds the wisdom of changing norms. Unfortunately, as we write (1978), the most accurate conclusion concerning the global food regime is a rather unsatisfactory one. The normative content of the regime is in flux. Any number of indices suggest that the postwar global food regime has probably passed into history. Yet its successor has failed to emerge clearly. The 1970s are unlikely to be years that produce global consensus on almost anything. For policy makers these years of regime flux are likely to prove extraordinarily difficult.

Participants: key food actors and institutions

The norms guiding the international relations of food emerge in the decentralized world polity. They arise from the actions and interactions of states and other organizations. They are bargained rules, for the most part, though bargaining capacity tends to be asymmetric and closely linked to participants' command over the

resources required to make transactions. More simply put, big buyers and sellers, producers and consumers in commercial networks and big donors in concessional ones have major (though not exclusive) influence over food regime norms. At times “global norms” have entailed little more than universal acceptance of a major participant’s unilateral policies.

The United States and the global food regime

Because of the United States’ position as the leading food exporter, and a huge consumer, especially on a per capita basis, the decisions of public and private officials in this country have weighed heavily, often decisively, in setting and enforcing norms of the global food regime. This is especially true with regard to the setting of patterns and prices in the international grain trade, and volumes and directions of international food aid. In some instances, the American ability to produce and export huge yearly surpluses placed this country in the position of supplier of first, last, and just about only resort for food-deficit populations overseas. Such quantitative dominance has doubtlessly amplified American influence over the global food regime. As a US official responsible for the daily operation of the export monitoring system, set up in 1974, remarked: “We come very close to being one market; world grain prices, for instance are set in Chicago — it is the Chicago price plus transportation anywhere.” Previously, the US domestic price, less subsidies set by Congress or the Secretary of Agriculture, largely determined world wheat prices, and, except for rice where Thailand’s influence is important, North American policies determined the international prices at which most grains would flow both commercially and concessionally.

The preponderance of the United States is declining in some areas (for instance, US food aid provided 90 percent of the total in the 1960s but only 60 percent in 1975) and in other areas its dominance is precarious. The U.S., for example, was the leading rice exporter for the decade 1965–1975, while producing less than two percent of the world’s rice. But this position is regularly challenged by Thailand. More recently, Brazil has been challenging the US in the soybean market; likewise, competition in beef is stiffening. Meanwhile, Western European agricultural scientists have been working with strains and breeds to lower the EC’s dependence on imported North American feedgrains. Agricultural trade as a proportion of world trade is also declining, from 33 percent in 1950–1955 to 17 percent in 1971–1975. Still, the US *share* of world agricultural trade has remained stable, averaging 12 to 15 percent in the period 1950–1977, though rising to 16 percent during the “crisis” period of 1973–1974.

American preponderance in the global food system, and US influence over the food regime, are less challengeable in other respects. The United States Department of Agriculture (USDA) has a central role in the global intelligence network which informs production, consumption and trade worldwide. USDA monitoring and research activities with regard to world crops (plus complementary work by the Central Intelligence Agency with special attention to the Soviet and Chinese situa-

tions) are looked upon as highly authoritative. Published intelligence from US sources is used by many other governments, as well as by farmers and multinational agribusiness firms. The contribution of these data-gathering and processing activities to the functioning of the global food system should not be underestimated. Nor should we underestimate the global systemic impacts of American public and private agronomic research, which remains the most extensive in the world. Greater openness and attention to more diverse problems in recent years has heightened further the global impacts of American agricultural research.

All of this suggests that American behavior in international food affairs, and above all American public policy decisions with regard to agriculture, have a great deal to do with the functioning of the global food system and the setting and enforcement of the norms that govern it. Understanding the principles and forces that shape US agricultural policy therefore is crucial to understanding the global system. Extended discussion of American policy and policy making is beyond the scope of this essay, but these issues are analyzed in detail by I. M. Destler in this volume.

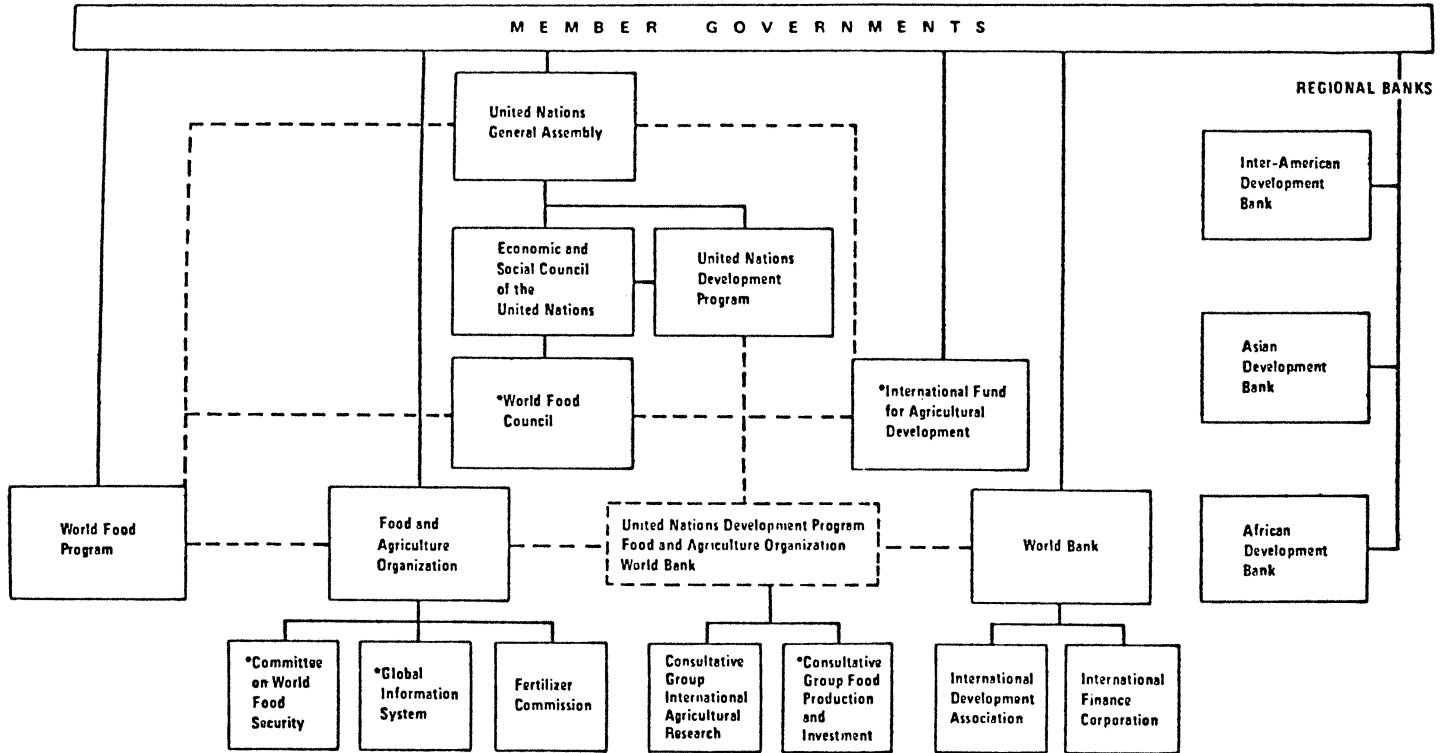
In general, agricultural policy in this country, both in its domestic and foreign aspects, emerges from public policy processes characteristic of American government generally. Pressures from farm organizations, the agribusiness community, consumers' associations, church and international relief agencies and a great many other factions play a part. Members of Congress, their constituents, committees, debates and election campaigns are important. Various inter- and intradepartmental interests within the administration intervene, including Agriculture, Treasury, State Department and the Office of Management and Budget. Foreign delegations and governments also attempt to influence the domestic political process. Because of the way the process works, United States agricultural policy predominantly serves domestic interests. Yet these interests are often in conflict; this frequently undermines the consistency of policy, even with respect to national goals. Destler discusses these policy issues at length below.

The role of international organizations

National policy decisions (or non-decisions) reverberate through a network of international organizations with food-related missions. Eighty-nine such international intergovernmental bodies were recently listed in a report on American participation in world food politics prepared by the United States Senate.²⁰ If one were to go on to also count private associations, organizations involved in global food affairs would number in the thousands. It would require research and analysis well beyond the scope of this volume even to begin to map the full structure of the international organizational arena for food. Nonetheless, some mapping is required to help sort out the maze of acronyms and relatively obscure formal organizations that exist. Figure 3 provides such an overview map.

²⁰U.S. Congress, Senate, Select Committee on Nutrition and Human Needs, *The United States, FAO and World Food Politics: U.S. Relations With An International Food Organization*, Staff Report 94th Congress, 2nd Session, (Washington: U.S. Government Printing Office, June, 1976), pp. 11-13.

Figure 3. The United Nations food network



Source: Based upon Figure 3 in Martin Kriesberg, *International Organizations and Agricultural Development*, Economic Research Service, Foreign Agricultural Economic Report No. 131 (Washington: USDA, May, 1977), p. 19.

What in the diagram is called the "United Nations Food Network" is a set of functionally interrelated institutions, individually and collectively mandated to respond to problems in the global food system as defined by their member-governments and international staffs. The Food and Agriculture Organization (FAO) is a specialized agency of the United Nations operating under a 1945 agreement between the FAO Conference and the General Assembly. It is an autonomous association, responsible only to its members (currently 136 national governments) and financed by them for its "regular" budget which largely pays for staff operations. The charter mandate of the FAO calls on it (1) to collect, analyze and disseminate information relating to food and agriculture, (2) to provide an international forum for the consideration of food problems, and (3) to provide technical assistance to member countries.²¹

Most closely bound to the FAO (or vice versa) within the UN network is the United Nations Development Program (UNDP). The main source of technical assistance in the UN, UNDP was founded in 1966 through a merging of the Expanded Program of Technical Assistance and the United Nations Special Fund. FAO currently serves as the executing agency for most projects in food and agricultural development financed by UNDP, and UNDP reimbursements yearly constitute the single largest category of the FAO's total receipts—about double that of the regular budget of 106 million (for 1978).

Less intimately associated with FAO, but still importantly linked, are the World Bank Group, the three regional development banks, the World Food Program and other "cooperative" programs. Through an IBRD/FAO Cooperative Program, FAO assists the Bank in identifying and evaluating projects for possible funding, and it aids prospective loan recipients in preparing applications. Less directly, linkages also exist between FAO's Industry Cooperative Program, its Investment Center and the Bank's International Finance Corporation, where liaison and exchanged information guide private-sector investments in food processing and agricultural development. By way of their capital-raising activities, and via intra-professional communication, the World Bank Group is connected to the Inter-American Development Bank (IDB), the Asian Development Bank (ADB) and the African Development Bank (AFDB), all of which finance agricultural development.

The World Food Program (WFP), created in 1966, is essentially an international food-for-work operation that finances development projects with payment in kind pledged by members. WFP also intermittently functions as a disaster and famine relief agency. Organizationally, it is linked to FAO via appointments to its governing body, and via joint field operations. Cooperative programs also link FAO to various other parts of the UN system; these include a program with the World Health Organization (WHO) on food standards — the Codex Alimentarius Commission — a program with the United Nations Children's Fund (UNICEF) directed toward improving nutrition among children, and a program in education about

²¹United States Government, FAO Interagency Staff Committee, "United States Objectives in FAO," (Washington, May, 1976).

global hunger and food needs, the Freedom From Hunger Campaign (FFHC).

Several new organs were created by the World Food Conference in November, 1974, and these are now operating in the UN food network.²² Resolutions approved first by the Conference and later by the UN General Assembly established a World Food Council (WFC) as the "highest" institution on world food problems in the UN system. Meeting at the ministerial level, the WFC is composed of 36 countries, nominated by the Economic and Social Council (ECOSOC) and responsible to it. Its composition represents a world fragmented into an industrialized North, an underdeveloped South, a capitalist West and a socialist East. For broad policy issues, the WFC was intended to be the hub of the UN Food Network. Whether it will achieve this status remains to be seen. Until its third annual meeting in Manila, in June 1977, disagreements over its authority and staffing blocked significant action. At Manila, a number of resolutions were passed on food aid, reserves, and policy coordination under multinational aegis. These were supported by the Soviet Union as well as Western and Third World governments. However, these resolutions were essentially hortatory, a point the Soviet government made in explaining its support.

Also authorized at Rome in November, 1974, were the International Fund for Agricultural Development (IFAD) and the Consultative Group on Food Production and Investment (CGFPI). The former, after an initial capitalization of just over \$1 billion for agricultural development was raised, began operations in 1977 with the special aim of helping the poorest of the less developed countries. It reports to but is not under the authority of the Secretary General of the UN, and its operations are overseen by a governing board composed of representatives of three categories of countries — developed-donor, developing-donor (e.g., OPEC) and developing-recipient. The CGFPI, which began operations in 1975, was called into being to encourage larger flows of resources into food production in less developed countries and to coordinate the activities of various international donors. Patterned after the Consultative Group on International Agricultural Research (CGIAR), the group on production and investment is sponsored by the World Bank, the FAO and the UNDP and hosts meetings of representatives of UN donor agencies, the development banks, foundations, donor governments, and recipient countries. As its name implies, it is a consultative organ responsible for collating information and recommending ways to increase, expedite and rationalize aid for agriculture worldwide.

In addition to organs already described, there are several UN bodies which regularly consider food questions as aspects of their broader programs. Significant among these is the United Nations Conference on Trade and Development (UNCTAD), where intense debate on North-South trade issues, many having to do with the terms of trade for agricultural commodities, has occurred over the years.²³ In many ways, UNCTAD has become as salient a forum for North-South agricultural

²²Thomas G. Weiss and Robert S. Jordan, *The World Food Conference and Global Problem Solving* (New York: Praeger, 1976), pp. 155-166.

²³B. Gosovic, *UNCTAD, Conflict and Compromise: The Third World's Quest for an Equitable World Order Through the United Nations* (Leiden: Sijthoff, 1975), pp. 93-114 and *passim.*; J. C. Nagle, *Agricultural Trade Policies* (Lexington, Mass.: D. C. Heath, 1976), pp. 70-97.

issues as has the General Agreement on Tariffs and Trade (GATT) for developed western states bargaining on agricultural issues (although there has been little "success" within GATT in lowering trade barriers in the agricultural area!).

Some words of caution are in order before we move from mapping into analysis and evaluation. First, organizations depicted in Figure 3 and briefly highlighted here are by no means the only international food bodies, not even as regards the UN network. For one thing, there are various coordinating committees and ad hoc food groups interlaced among the major institutions such as the Committee on Surplus Disposal of the FAO which monitors concessional sales for possible violations of anti-dumping norms. For another, many of the major organizations noted, the FAO in particular, contain any number of quasi-autonomous, differentially responsible organs within them. Second, the operational world of the groups and associations of the UN network is nowhere nearly as orderly, well-organized or separate as Figure 3 indicates or as the discussion suggests. In reality, redundancy (for good or ill) is rampant, complementarity is often unrecognized or at least unexploited, responsibility and accountability are poorly defined, coordination is difficult, and political and bureaucratic competition further complicates the network. Third, let us caution readers against mistaking activity for impact or accomplishment. There is a good deal of activity surrounding the international organization of food affairs, but budgets are modest, authority limited, support from member-states is uncertain at best, and, for myriad political and bureaucratic reasons, organizations tend to be restrained from accomplishing their mandated tasks.²⁴

Yet international institutions should not be evaluated in terms of unrealistic criteria. Many global food problems could be more effectively addressed if international organizations were more authoritative, more efficient and more able to command resources in pursuit of global objectives. Contributing authors make this clear in their discussions, and we return to elaborate this point in our concluding chapter. Rather than dwell upon functions international organizations do not (and perhaps cannot) perform given the environment in which they operate, we should note the functions they can and do perform in relation to the global food regime. International organizations in the food area affect, modify and occasionally enforce regime norms in at least four ways: (1) by prodding governments through public and private channels, such as speeches, reports and multilateral conferences, to confront issues that national bureaucrats might otherwise choose to ignore, (2) by collecting information, fostering inter-elite communication and sponsoring research that governments by themselves might take little interest in, (3) by providing international services that governments could not perform for political reasons, and (4) by legitimating unilateral policies or bilateral deals by lending them multilateral imprimatur.

With regard to our point about prodding or stimulating governments, the con-

²⁴For a discussion of budgetary resources, see, United States Department of Agriculture, Economic Research Service, "Multilateral Assistance for Agricultural Development" (Washington: USDA, 1977). For commentaries on national support and political and bureaucratic problems, see, United States Senate, Select Committee on Nutrition and Human Needs, pp. 25-68.

tinuing debate concerning international grain reserves is particularly illustrative. The latest impetus for the idea of a global grain reserve came from a 1973 proposal by former FAO Secretary-General Boerma. The scheme contradicted American (and Canadian) policies at the time it was articulated, but it did receive collateral support from the number of independent studies by business and academic organizations in the United States and elsewhere. In this way Boerma's initiative became an issue in US policy making and, as Destler shows, it was hotly debated in Washington during preparations for the World Food Conference of 1974. Ultimately, the State Department's positive position toward grain reserves carried the debate and Secretary Kissinger was authorized to announce US acceptance of the reserve principle and to pledge cooperation towards its realization. He did this at the Rome Conference.

At this point the national debate about principle became an international debate about practice. The United States initially offered a plan for a reserve program of 60 million tons — considerably larger than that suggested by Boerma. Washington then retreated from this position and fell back upon a scheme for a more limited reserve, nationally held and coordinated. But this by no means settled the question. Eighteen months after the initial pledge at Rome the reserve discussion was centered at the International Wheat Council (IWC) in London, where debate among potential participants in the reserve turned on questions about the total size of stocks, the size of each country's contribution, the method of holding the reserves, the distribution of costs, the conditions for accumulating and releasing stocks, the relation between food reserves and food aid, and the role of international organizations in the reserve undertaking.

By the autumn of 1976 the "food reserve" question was re-injected into American domestic politics as a campaign issue, as candidate Carter became an advocate of international stocks. Shortly after the installation of the Carter administration, Agriculture Secretary Bergland publicly proposed to build a modest US reserve of about 8 million tons,²⁵ and renewed efforts at the IWC to attain international support and cost sharing for a broader reserve undertaking. The issue may be decided by mid-1978, when the current International Wheat Agreement expires, either with a successful incorporation of new multilateral rules for managing international reserves or with failure and a return to relatively uncoordinated national measures. In the latter case, the United States will return (though less dependably) to its *de facto* role of principal reserve holder for the world.

While the food reserve story is not yet concluded, our point is made. International organization prompting injected a significant issue into national policy-making that many officials within relevant national governments would have preferred to avoid. When the issue was projected back into the international arena it took the form of a proposal for global collective action, which, if ultimately accepted, could become a new norm of the global food regime.

²⁵Under current legislation (1977), a U.S. domestic reserve of 35 million tons of grain may be accumulated and held.

In areas of information, research and communication, the FAO is both central and significant. As the principal intergovernmental organization for food affairs, FAO participates in or reviews nearly all intergovernmental and transnational activities in the field. FAO's budgets for research and publication are small compared to amounts spent by governments for nationally focused research programs. Yet, the organization's output is substantial: its periodicals, yearbooks and country analyses are frequently cited, and its projections frequently guide national planning and policy making.²⁶ Its studies in agricultural adjustment have aimed to lower barriers to trade. Its research on fisheries helped to establish fishing area councils in which countries could address mutual problems; and through "indicative planning" reports it reviews the investments and activities of countries and MNCs on a global scale with the purpose of mobilizing resources of individual states to address foreseeable problems.

The network of institutions involved in international agricultural research is centered in the FAO, but it extends beyond to include national research and development agencies such as the United States Agency for International Development and Canada's International Development Agency. It also includes a number of quasi-public bodies such as the Consultative Group on Food Production and Investment noted earlier, and the ten international research centers coordinated by the Consultative Group on International Agricultural Research. Widespread international communication about agricultural research is newer still. While a full assessment of the institutions in this area is premature, it is fair to credit cooperative international research ventures during the 1960s with producing the "miracle seeds" for high yielding dwarf varieties of wheat and rice that led to what some proclaimed as a "Green Revolution" in food production.

In addition to disseminating information and coordinating the creation of new knowledge, international organizations have become increasingly involved in field operations in rural modernization and agricultural development. Most of these efforts, naturally, are targeted toward Third-World countries. Some of the development services of the multilateral agencies are discussed by Austin, while Nicholson and Esseks cover the problems that poor countries face. Though still modest, the budget allocations for such interventionist field programs have expanded rapidly since the early 1960s, and it has sometimes been the case that multilateral undertakings have reached countries and peoples denied bilateral assistance for political reasons.

Fourth, international organizations have influenced the global food regime, by legitimating practices and patterns of behavior, thereby turning them into norms. It is not surprising that most practices legitimated by international organizations are often simply multilateralized versions of the policies and preferences of powerful member-states. Yet, there is still something to be said for member-states' seeking international endorsement, especially if it creates a barrier to actions that would be detrimental to other states. Furthermore, multilateral debate, such as at the IWC or

²⁶Joseph M. Jones, *The United Nations at Work: Developing Land, Forests, Oceans and People* (Oxford, England: Pergamon Press, 1965), p. 118.

the Rome World Food Conference, has provided reconsiderations and modifications in national policies that multilateral acceptance often requires. Contributors to this volume report on a number of efforts of multilateral legitimization of norms, including those for maintaining a concessional system of food distribution, those shaping "development" as an international responsibility to be fostered by the UN and FAO, those maintained by GATT for strengthening the free trade principles of the commercial system, and those that foster and direct the international research network, including the principle of free flows of information.

Despite (or possibly because of) their impact, support for international food organizations, most notably the FAO, has declined among industrialized states in recent years. This has coincided with the increased activity of the poorest states in the United Nations, where the various agencies charged with international welfare tasks have become primary arenas of debate between advocates of a New International Economic Order and their critics. As the global food regime of the postwar era has become subject to increasing challenge, stress and deviation, political leaders in the United States and other industrialized countries have sought to protect their states' very large stakes in the traditional status quo. Part of their strategy has been to deflate universal multilateral bodies, and hence to dampen "populist" pressures by circumventing forums controlled by Third World majorities. Alternatively, these countries' spokespersons have sought to create new specialized institutions with built-in veto opportunities, weighted voting, limited membership or limited authority, and to propose bilateral alternatives to multilateral programs where one-on-one rather than one-against-many bargaining conditions would prevail.

Agribusiness and the global food regime

Multinational agribusiness corporations, the largest and most numerous of which are American, must be included in any discussion of the global food system and regime. As managers of global food transfers, promoters of large-scale production and facilitators of technological diffusion, the MNCs are often links between governments' intended policies and their actual accomplishments. This is especially the case with United States foreign agricultural policy, since the realization of official intentions in trade, aid, and development investment has depended consistently upon the compliance and cooperation of the agribusinesses which actually handle the flows of foodstuffs, capital and technology. The major grain companies, Cargill and Continental, for example, are the effective managers of international sales of wheat, corn, rye and other grains to Europe, Japan, the Soviet Union and other major customers. Similarly, US concessional sales, although approved officially, are actually negotiated between private companies and recipient countries.

Multinational firms also affect global food production and agricultural productivity through their investment decisions. Producer firms such as Esmark, Dole, Kraftco and Nestlé affect poorer countries by promoting technological diffusion, altering patterns of land use and impacting upon local patterns of income distribu-

tion. Cultural diffusion, also promoted by MNCs, has led to the introduction of western food marketing techniques, from supermarkets to McDonald's "golden arches" throughout the world, and such activities, for better or worse, have also promoted changes in dietary and nutritional habits in many countries.

More analysis and appraisal of the effects of large corporations is included in chapters by Seevers and Christensen. Let it suffice to say here that while intergovernmental organizations operating in the food area can be criticized for their limited impact on the global food system, the contrary is probably true with regard to the MNCs. The large firms have been both aggressive and effective, but their largely profit-motivated activities have had mixed effects. Their contributions in disseminating technology have been impressive. But a goodly proportion of their investments in the Third World have been in cash crops which actually compete with food crops, and in food crops that are exported to richer countries rather than eaten in poorer ones.²⁷ Similarly, their marketing activities, their occasional oligopolistic influence over prices and the secrecy of their transactions have had unsettling effects upon the food system. These were clearly in evidence in the case of the Soviet grain purchases of 1972, where market management by the large firms, and the secrecy that cloaked it, hindered timely adjustment to the magnitude of the Russian intervention. Both Paarlberg and Destler analyze aspects of this Soviet grain deal in their respective chapters below.

As regards the relationship between the MNCs and the global food regime, our judgment is that the large firms had little to do with the setting of the norms that have prevailed in the postwar era (except perhaps via their influence over US policies).²⁸ On the other hand, the regime as a whole has been benign by and large toward the interests of the big producers and traders.²⁹ The companies have profited in the environment that the regime created. The regime's emphasis upon commercial dealings, its ethos of more trade and freer trade, its direction of concessional flows through private transactional networks, its encouragement of research in more productive technologies (notably a boon to fertilizer producers), and its relative underemphasis (until the 1970s) on small farmers in poor countries, who are of little use to MNCs one way or the other, all created an environment which, in no small measure helped produce multinational agribusinesses and sustain their growth.

Food system and regime in perspective

For all its complexity of structure and functioning, the global food system, especially since 1972, has not been functioning very satisfactorily if we impose

²⁷See Michael Lofchie, "Political and Economic Origins of African Hunger," *Journal of Modern African Studies* (December 1975): 551-567, and Susan George, *How the Other Half Dies* (London: Penguin, 1976).

²⁸Similarly, most poor countries have had little influence on the regime, except as their needs became so apparent as to be impossible to ignore.

²⁹It might also be considered to have been largely benign toward the interests of poor countries, though not necessarily poor people in these countries, except where these interests conflicted with those of the major participants in the commercial system.

standards such as the stemming of scarcity, provision of security or the maintenance of price stability. Nor, for that matter has it worked very well to overcome low productivities in farming in less developed countries or to improve the basic nutrition of the world's poor.

At the heart of the system's incapacity to respond adequately and equitably to world hunger is the basic principle that underlies the norm-setting process of the regime.

The rules of the regime originate as *national policies which are internationally bargained and coordinated*, by purpose or default, by multilateral agreement or unilateral dictate. This would be satisfactory if national policies (or at least the policies of those national actors that most influence the regime) gave high priority to meeting global needs. In fact, as suggested, the case is exactly the opposite: national foreign policies in agriculture, because of the political imperatives behind them, have tended to serve domestic ends ahead of international ones. This last point, incidentally, tends to be as true for less developed countries as it is for the industrialized states. The outcome of this "nationally decided, internationally coordinated" principle has been a continuing pattern of food flows conditioned primarily by market forces (from those who can sell, to those who can buy) unbuffered in recent years by reserves, and by and large undersupplied in aid. It might be argued that such a system is about the most that we can expect in a world of separate, sovereign and unequally endowed states. A number of authors contributing to this volume, however, are unwilling to accept this.

The political forces shaping norms of the food regime are largely divorced from the majority of people most severely affected by problems in the global food system. These are the rural poor of the Third World. Food trade and aid, investment and information do not affect these people significantly since they are simply not part of the modern interdependent world. The poorest peasants of Asia, Africa and Latin America participate little if at all in cash economies and hence are neither stimulated nor distracted by price changes or other supply and demand fluctuations, international, national or otherwise. They are often unreached, even by their own governments' policies. Certain theorists, of course, argue rather persuasively that such isolation in poverty for the peasantry reflects not their isolation from the world system but their centrality in it. They are its victims, and their continued victimization is crucial to its national and international functioning. Only a revolutionary overturning, it is argued, can break them out of their poverty. Only one of the authors below, Christensen, makes the case for revolution. Whether at the center or the periphery of effects from the international food system, such peasants, once involved in the causal links of the system, are both the most vulnerable and least potent group affected, at least compared to the minor extent of their involvement. Hence sober reflection upon the norms of the global food regime, as we perceive them, does drive one to the conclusion that the rules of the system have focused neither sufficient transactions nor attention upon the plight of the world's rural poor. By legitimizing ongoing concessional dealings, the regime might be said to point in this direction, but the residual role these have played as ways to "dump" have lessened their effectiveness. Further, intentions over who should benefit from for-

eign donations have tended to shift markedly at the national borders of recipient countries, and the norm of sovereignty has muzzled international concerns with internal affairs, often to the detriment of poor people in the countryside.

Finally, in addition to the broad and endemic inadequacies of the current food system, which will be difficult to rectify, other more specific shortcomings can be singled out that are perhaps easier to deal with. For example, there is currently a lack of productive resources and relevant technology available to countries needing to expand their food supply. Furthermore, in many poor countries public policies actually inject net disincentives to expanded food production.³⁰ Added to this are inadequacies in financial and administrative infrastructure which further hamper food production. Globally, there is no real control over grain production, no systematic stockpiling and no controls over trade and price. National policies in nearly every country, developed and underdeveloped alike, are still deficient with respect to nutrition and health. Population policies are rare and largely ineffectual. While many of these problems could be alleviated by changes within countries, in many cases the success of what is done will depend partly upon what is done in other countries, and partly, too, upon international norms. Global food interdependence requires collaborative policy efforts to establish rules for a new global food regime. Without such new norms, and appropriately compliant behavior, it is likely that the expansion of food production will occur haphazardly, and too slowly, with little attention to chronic hunger, little heed of environmental side effects, and little concern for distributive justice.

³⁰Abdullah A. Saleh, "Disincentives to Agricultural Production in Developing Countries: A Policy Survey," *Foreign Agricultural Supplement* (Washington: GAO, March, 1975), p. 1.