

The AMERICAN JOURNAL of ECONOMICS *and* SOCIOLOGY

Published QUARTERLY under grant from the Robert Schalkenbach
Foundation in the interest of constructive synthesis in the social sciences.

VOL. 6

OCTOBER, 1946

No. 1

Food, Famine, and Diplomacy

BY W. M. CURTISS

THE PREVENTION OF STARVATION among individual people wherever they may live is one thing, and a proper perspective of world food problems is another. The atmosphere surrounding the latter has cleared considerably in recent months due in no small part to the impact of such books as *The World's Hunger*.¹ Leaders have rapidly become less "surplus" minded and are talking less about about a "quart of milk and a can of spinach for every hottentot" and more about the realistic alleviation of suffering with wheat and rice.

Primitive man devoted most of his time to feeding himself and his family. Many groups of people today have progressed little beyond that stage. In a country where 80 per cent of the working force is engaged in farming, the people have little more than a minimum of food, clothing and shelter. When, as in the United States, only one-sixth of the working force is required to produce the food and fiber requirements of the nation, then a substantial portion of the workers can engage in supplying such luxuries as better housing, education, travel, recreation, drama, literature, painting, and the

¹ *The World's Hunger*. By Frank A. Pearson and Floyd A. Harper. Ithaca, N. Y.: Cornell University Press, 1945.

like. Pearson and Harper discuss how this has come about and the possibilities of accomplishing it on a world-wide basis. It is fairly generally agreed that the satisfying of hunger is one of the first essentials of man. It is not so generally agreed as to how man will use his productive capacity if it goes beyond the mere alleviation of hunger. Will he, for example, go further than just supplying himself with sufficient calories, or will he use some of his additional productivity to improve his eating habits by consuming the more expensive foods like meats, milk, eggs, fruits, and vegetables which he likes better and from which he can more easily balance his diet? This question is not easy to answer, and different individuals will answer it differently. Some apparently prefer to use their excess productivity in having more leisure time, or in acquiring such non-food items as an automobile, a radio, or better housing; others apparently would rather have more beef-steaks, more ice cream, more butter, and the like. It is important, first of all, to have some excess productivity over the bare food requirements in calories, and secondly to permit people the free choice of how they wish to use the excess productivity—whether in better food, or in the consumption of other goods and services.

Variations in Diets

THE AUTHORS HAVE A WAY of never letting the reader forget that the per-capita level of living of a nation (and this includes food as well as other goods and services) is determined primarily by the per-capita level of production. This accounts for differences between continents, nations, and even between individuals within a nation or even a community.

Perhaps the most surprising revelation in *The World's Hunger* is data which indicates that on a per-capita basis, people all over the world eat about the same amount of food in terms of calories or dry-matter. We commonly think of

the under-fed millions in India and China in contrast to the well-fed Americans. The variation is largely in the quality of food eaten rather than the quantity. The authors explain this important similarity by stating that the margin between over-eating and starvation is an extremely narrow one; that the human body requires a fairly constant amount of calories to maintain its weight and normal activity.

The striking similarity between per-capita caloric intake of peoples of different continents no doubt exists between individuals within a nation, or even a community. When we speak of our under-privileged third in the United States, the difference between their diets and those of the upper-income group is largely one of quality rather than quantity. The authors define high-quality foods as those such as animal products, which are highly palatable, but which require the feeding of considerable grains that could be used directly as human foods and would provide 8 to 10 times as many calories. Animal products such as milk, eggs, and meat are a luxury that few people in the world can afford because the productivity of most is so low they must eat the grains themselves rather than waste 80 per cent of them by feeding them to animals.

For the world as a whole, only 9 per cent of the food consumed is of animal origin, but this varies from as low as 3 per cent in Asia to 25 per cent in North America and 36 per cent in Oceania. This variation in the quality of the diet has led many people to think of the people of Asia as under-fed. Many nutritionists will not be satisfied with the authors' discussion of world food problems in terms of calories and dry-matter. The authors defend themselves by recognizing that it is easier to obtain what nutritionists now call the essential food nutrients from animal products, but that large groups of people have done a fair job of balancing their diets with a minimum of these products.

The World's Hunger indicates that, except for Europe, the continents of the world are practically self-sufficient so far as food is concerned. Only 6 per cent of the world's food moves in intercontinental trade, and this is largely a movement of food from North and South America to Europe.

The authors have an interesting way of bringing the world food problem into focus by showing that a world population of 2.2 billions of people are supported under present conditions; if the world utilized its total food production as the Asiatics do (i.e. use most of their grain production directly for human food), the present food production of the world would support 2.8 billion people or 30 per cent more. If, on the other hand, the world food production were utilized as it is in North America, with its high livestock production, only 900 million people or about 42 per cent of the present world population could be supported. This way of presenting it brings out rather clearly that improvement of the world's diet must come about either through increasing agricultural production or by reducing population or by a combination of both policies. The authors devote a considerable portion of their book to an analysis of the possibilities of increasing world food production. Their conclusions on this subject are not optimistic.

A few persons suggest that a solution to the problem would be an equal division of animal foods the world over. Asiatics eat about 16 pounds of animal food per capita while North Americans eat 143. Equal division of animal products would give all people about 52 pounds which would triple the average Asiatic's and reduce the North American's by two-thirds. Even the "ill-fed" one-third of the United States' consumers would be deprived of more than half of their livestock products under such a division.

Famines

FAMINES ARE GENERALLY CAUSED by reduced production of food, or by inability to transport food to stricken areas. Under the latter should be included the lack of transportation facilities as well as the political barriers to transportation during war as well as peacetime. The famines of history have been largely due to localized crop failures. Most of the areas of the world produced their own food requirements and when crops failed, little or no transportation facilities were available to help feed the starving. True, there was limited migration of people out of the stricken areas. In more modern times when crop failures due to drought or flood have resulted in famines, transportation of food from areas that could spare it has helped alleviate the situation.

It would be difficult to imagine a widespread famine in the United States. In 1934 and 1936, when drought was widespread in the central states, food was not only shipped into the drought areas to feed the people, but considerable feed grains were shipped in for livestock. Areas with large numbers of livestock are especially resistant to famines. With crop failures or low production, meat animals can be slaughtered to add to the available food supplies as well as to release grain for direct human consumption. Only about two-thirds of the United States wheat crop is normally made into flour for domestic consumption. It is common to carry over enough wheat from one year to another to supply half of our domestic flour needs. The production of wheat would have to be curtailed severely before bread consumption in the United States need be affected.

For feed grains other than wheat, an even more favorable situation exists, so far as avoiding famine due to crop failure is concerned. Normally, less than 10 per cent of the total production of feed grains are used for human food; most of

these could be consumed directly by humans. This backlog of food in the form of livestock, or grains normally fed to livestock, together with an efficient transportation system, makes widespread famine in the United States practically impossible if the system is left to function properly.

A similar situation exists in parts of Europe in normal times. A large amount of feed grains are imported into that area to feed a fairly large livestock population. In times of war when these imports are shut off, the people reduce their livestock numbers and eat more of the grain and potatoes which they normally produce for livestock, thus avoiding famine.

In contrast to North America and Western Europe, Asia, including China and India, is especially vulnerable to famines. This is largely because the inhabitants of that area do not have the backlog of meat animals which they can slaughter for food in times of crop failure. They require practically all their grain production for human food and when production is severely curtailed, famine results.

Our experience after two world wars has led us to think that famines are an inevitable aftermath of wars. Some conditions associated with wars do lead to decreased food production. As a result of the recent war in Europe, dislocation of populations, reduced amounts of work stock, scarcity of farm labor and machinery, disrupted transportation facilities, shortages of commercial fertilizers, and the actual destruction of a small amount of crops and crop land all contributed to lower food production. Most of these handicaps to production can be quickly overcome, and famine conditions should be of relatively short duration. The situation becomes considerably more complicated and more difficult to predict when international diplomacy enters the picture.

The question of the severity of the European food situation is one that has not been answered to the satisfaction of all

concerned. Food is a subject about which a great deal of emotion can be generated, and it is difficult to sift truth from propaganda from the many conflicting reports which abound. Reports that large groups of people are living on an average of 1,000 or 1,250 calories a day seem incredible. One wonders whether such reports are circulated for political purposes or are made in ignorance of the facts. One possible explanation for such statements is that only the official ration of food is reported. It may ignore foods not on the ration lists, or foods acquired in black markets, or food raised in the home garden, or livestock raised at home, or other methods of getting food. Such sources of food could well be an important part of the diet of many people.

One report coming from medical personnel who studied the food situation in Holland in May and June of 1945, following its liberation, stated that serious famine conditions existed among 5 per cent of the people. These conditions were quickly corrected with a restoration of order in the country.

Aside from the European situation, famine conditions exist in certain localized areas of the world. The food situation in India, due to drought and floods, has been serious in some areas. The 1945 per-capita world food production has been reported to have been 12 per cent below the pre-war level. This was due primarily to drought in the southern hemisphere. Localized famines in different parts of the world are a frequent occurrence but in modern times are of relative short duration. When international diplomacy is mixed with food shortages, the duration becomes difficult to predict.

Food and Diplomacy

EITHER FOOD OR DIPLOMACY considered separately provide sufficient ammunition for a large-scale battle; but when mixed, the resulting explosion may truly be considered a part of the atomic age. Because of the human urge to satisfy hun-

ger, the two have been mixed for centuries. International politics have played an increasingly important part in the world food situation since World War I.

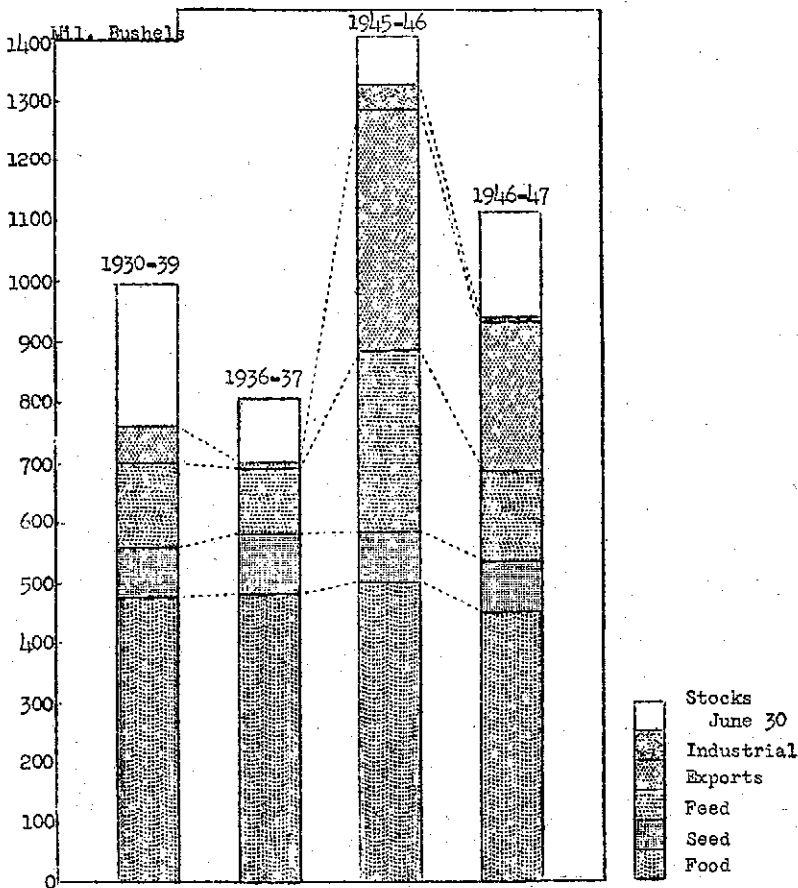
NATIONAL POLICIES: National policies with relation to food have become increasingly important as nations have tried more and more to regulate their domestic production, their imports and their exports of foods. The United States has had about fifteen years of experience with one kind or another of controlled production and controlled prices of foods.

In an attempt to regulate production and prices, this country has had some interesting, if not serious experiences. The fact that we have survived our food experiments so successfully is due in no small part to the fact that the weather has been on our side continuously since the drought year of 1936. Farmers have increased total production by about one-third in spite of labor and machinery shortages as well as other handicaps. The existence of food black markets, a potato famine in 1943, a bread shortage in 1946, and an almost continuous shortage of meat and butter—all of which occurred when food production was at unusually high levels—are national scandals to which we cannot point with pride. A discussion of our experiences with wheat and potatoes will illustrate the effects of some of our national food planning.

Wheat: The accompanying figure tells an interesting story about United States wheat. It shows the disposition of the total supply for a 10-year period before the war, for 1936-37, the year of the smallest supply in the past 20 years, for the year just ended, and prospects for the coming year. The height of the bars represents the total supply available for each period. This supply consists of carryover of the old crop, the new crop, and imports of wheat. Production is highly variable and since 1930 has been as low as about one-half bil-

DISPOSITION OF U. S. WHEAT SUPPLY*

1930-39, 1936-37, 1945-46, and prospective 1946-47



*Supply includes stocks on hand July 1, new production, and imports. From 1930-36, stocks July 1 included some new wheat. Since 1937, stocks July 1 have included only old crop wheat.

Source: The Wheat Situation, USDA, Bureau of Agricultural Economics, #93, Jan-March 1946, and Address by Robert H. Shields, PMA Administrator, in Chicago, May 14, 1946.

lion bushels and as high as 1.1 billion bushels. A billion-bushel crop has occurred only three times in history—1915, 1944, and 1945. For the fourth time, a billion-bushel crop is in sight for 1946.

Stocks on hand July 1 have fallen below 100 million bushels only once in the past 20 years, and that was in 1937 following the 1936 drought. It has been estimated that stocks on July 1 this year will fall below 100 million bushels. They cannot go far below that figure and still keep the channels of trade filled. Stocks of wheat on July 1 reached as high a figure as 632 million bushels in 1942 following several years when the Government encouraged storage by loaning more than the market price on wheat. The carryover that year was larger than the total production of wheat during each of four years in the early 1930's.

Imports of wheat are ordinarily negligible but in 1943-44 amounted to 136 million bushels because of the heavy demand for feed for the large livestock population that had been built up during the early war years.

In normal times, the first claim against the wheat supply is for human food. Since 1930, about 500 million bushels have been used for food, with little variation from year to year. On a per-capita basis, this has varied from 3.6 to 4.0 bushels a year. Seed is another use of wheat with high priority and, although it ordinarily amounts to less than 10 per cent of the supply, it is fairly constant.

The variables in the use of wheat are for export and livestock feed. In years of short supply, little is exported or used for feed. Approximately 100 million bushels of wheat are fed to livestock on farms where wheat is grown; this varies little from year to year. In years of short supply, little more than this is fed. When supplies are large, more is fed and in 1943-44, with a large carryover and large imports,

nearly one-half billion bushels of wheat were fed to livestock.

Industrial uses of wheat, principally in making alcohol and beer, have been small except in recent years when wheat has been relatively cheap.

Under a free-price economy, it would appear that the first claim on wheat is for human food and for seed. These claims are fairly constant and after they are satisfied, most of the remainder, except for carryover, is either fed to livestock or exported to foreign countries for food. Wheat is normally considered too good a human food to be fed to livestock except in limited amounts on farms where it has been grown. Foreign countries in need of wheat for human food can ordinarily out-bid United States livestock for wheat.

Under a controlled economy in the United States, strange things have been happening to our wheat. When the country was surplus-minded in the 1930's, encouragement through loans and government purchase built up huge stocks of wheat which in a free market would have been fed to livestock or exported. As the war progressed, these huge stocks might have been saved for human food at the cessation of hostilities; the prospective needs were anticipated by most food experts. But the Government's cheap-feed policy held down the price of wheat to a point where feeding it to livestock was encouraged, and the stocks were fed up. At the close of the war, when the need for shipment of wheat abroad was great, the stocks were gone, and the feeding of wheat to livestock was continued at a high rate. It was only because of the record production of wheat in 1945 and "scraping the bottom of the barrel" that we were able to come close to fulfilling our foreign commitments for wheat for the year just passed.

The country is now faced with the difficult problem of allocating the 1946-47 wheat supply. Under a free-price

economy, this would be no problem at all because we are faced with the third largest production of wheat on record. There will be sufficient wheat to satisfy our own food and seed needs and leave 250 million bushels of wheat for export if we are willing to let humans compete with our livestock for the available supply. Humans can only compete with livestock for wheat through price or by strict rationing or commandeering and allocation of wheat by the Government.

One of the strangest situations ever to develop in the United States occurred in the late spring of 1946 when people were unable to buy bread in stores. This occurred during the year of the greatest wheat production on record. The explanation is simple: people were unable to compete with the hog, the cow, and the hen for wheat. The official explanation was that we were shipping so much wheat abroad for human food. There would have been sufficient wheat for humans here and to fulfill our commitments abroad if we had not encouraged farmers, through low pricing of wheat, to feed to livestock the second greatest amount in history.

From either a nutritional or economic point of view, it would seem advisable to permit humans to buy all the wheat they wish in the form of bread before feeding it to livestock. Under a free-price system this choice is automatic.

Many emergency measures were taken in an attempt to save wheat after it was too late. Millers were required to extract 80 per cent of the wheat in making flour instead of their customary 72 per cent. True, this measure makes it possible to make the same amount of flour from fewer bushels of wheat. But with livestock already consuming so large an amount of wheat, this measure means that humans eat more bran while livestock, which are better able to utilize bran, eat less.

The primary problem for 1946-47 is to induce farmers to cut in half their feeding of wheat to livestock. This could be

done very easily by a free-price mechanism, and still leave more than an average amount of wheat for livestock feed. If wheat continues to be priced too low, the incentive for farmers to persist in feeding it to livestock will still be present; the problem then will only be solved by rationing of wheat by some method, whether by price or by tickets. Rationing will be painful and will necessitate some reduction in livestock numbers. The solution of the problem lies squarely at the door of the Government which caused the problem. The ease with which the Government solves the problem will be determined in large part by the size of the current corn crop which has a direct and important bearing on the livestock feed situation.

Potatoes: The Government's attempt to control potato prices and production through the war period and the resulting chaos, has been described by Pearson, Myers, and Paarlberg.² In 1942, a normal crop of potatoes was produced and would have easily satisfied our requirements but it was priced too low and a mild potato famine resulted in the spring of 1943.

The 1943 crop was the largest on record. The Government spent \$25 million to encourage farmers to increase their production and another \$20 million to remove the estimated 75 million bushels surplus. The many variables which enter into the price of potatoes such as size of crop, area of production, time of production, variety, grade, market, type of package, storage, etc., are automatically taken into account in a free-price system, but become impossible problems when another system is substituted for it.

The wheat and potato situation were described in some detail only to illustrate how tangled some of our food problems may become when a free-pricing system is replaced by

² *The Price of Potatoes*, by F. A. Pearson, W. I. Myers, and Don Paarlberg, *Cornell Farm Economics*, March, 1946.

an administered or man-made system of prices. Many other illustrations could be used.

INTERNATIONAL POLICIES: The part which food can play in international politics may be so subtle and concealed as to go unnoticed by the rank and file of the people. Nevertheless, it can be extremely dangerous to the countries involved and to world peace. In this respect, Europe would appear to be a danger spot of the world because of her dependence on imported foods and feeds. A nation which can control the food lines to Europe is in a position to be extremely influential in guiding her political destiny.

Any nation which has sufficient control over her food exports to use them as a leverage against another country, has given up her domestic freedom to a degree that she has little to offer to another country as a "way of life." If, for example, the United States felt that in order to play her rôle in European diplomacy properly, she had to have control of her food exports, and thereby felt that she must maintain domestic price and production controls over food, it would seem an empty gesture to say to another nation, "if you choose the way of 'Western Democracy,' you can have our food." As a matter of fact, a free United States will have little if any food to bargain with in the future; since 1920, she has been on a net import basis so far as food is concerned.

It would appear that the greatest service the United States could render to world peace would be to maintain a strong, free nation at home. We talk in terms of greater freedom of world trade, but at home we are setting the stage to curb it. We have seen that price controls make control of foreign trade inevitable. Foreign trade controls immediately become involved with diplomacy and international politics.

It would seem logical that a nation like the United States which professes to be free, might say to the world, "if any

individual anywhere, wishes to buy what we produce, whether it be food or industrial products, and is willing to exchange money, or goods, or services for it, to the satisfaction of the seller, then we stand ready to encourage such a trade." Such a policy both for domestic and foreign commerce should go far in convincing the world that we intend to be free and democratic and peaceful.

Summary

THE WORLD'S HUNGER may leave some readers in an atmosphere of pessimism so far as the possibilities of up-grading the world diet is concerned. Whether this is pessimism or realism depends on one's point of view. If one considers the problem from the standpoint of improving the diet nation by nation, progress is possible.

Based on experience in this country, people with adequate incomes would apparently like to have animal products make up 40 per cent of their diets. To hope to attain this high standard for the world, where animal products now constitute less than 10 per cent of the diet, may seem hopeless. It is certainly a long-range program.

The ultimate answer depends primarily on real income or production per capita. It is in part a production problem and in part a population problem. An individual who is able to raise his output above the bare necessities of food, clothing, and shelter should be free to decide for himself whether his increased production shall be used to support a larger family or to purchase a better diet for a smaller family. In preference to a better diet, he might choose to use his extra production for more non-food goods and services. Individuals will decide this question differently but so long as it is a free choice, greater satisfaction and contentment will result to the individual.

A great amount of unrest and discontentment can be gen-

erated around the world or even within a small group of people by holding out the expectation that each person is entitled to a minimum high-quality diet. Sight must not be lost of the responsibility of the individual in satisfying his own wants. After all, food is only one of the desires which must be met by individuals and it is possible for the people of the world to be well fed nutritionally on its present food production. This is not to say that diets will not be improved gradually by improvements in agricultural techniques. The hope of the world lies in setting people free to produce and to enjoy the products of their labor.

Cornell University