Food supply

1981

REFLECTIONS ON THE PRESIDENTIAL COMMISSION ON WORLD HUNGER

Walter P. Falcon

In September 1978, (then) President Jimmy Carter appointed a twenty-member Commission on World Hunger. The Commission's mandate was to identify the basic causes of hunger at home and abroad, to assess programs and policies affecting hunger, and to recommend (and publicize) specific actions to create a coherent national policy. The group had bi-partisan political support, and four of its members were from Congress. Unlike previous commissions of food and agriculture, however, representation from economists and agricultural scientists was quite limited. Although this was both a strength and weakness of the Commission, it had the unfortunate consequence of involving fewer professional groups than might have been desirable. In part, therefore, this essay is an after-the-fact (and slightly expurgated) report to agricultural economists on "what happened".

Since the entire Commission Report is readily available, this essay is not a summary of findings, although a number of recommendations from the Report are highlighted. The many changes (including the Presidency) that have occurred since the Commission reported formally in March 1980 suggest instead the need for a critical appraisal of the Report and for comments on possible next steps for the United States in the field of hunger alleviation.

Dimensions of the Hunger Problem

Perhaps the strongest aspect of the Commission's Report is its description of global hunger. Unlike other documents, for example, the recent

Presented at AAEA meetings, Clemson University, July 26-29, 1981

National Academy study that emphasized production problems and technical solutions, the Report is much broader in its scope and outlook. Much of the Report 's extensive, and often moving, description of hunger can be captured in five words: Asia, children, calories, chronic, and poverty.

In setting forth the quantitative dimensions of hunger, the Commission began implicitly from the framework suggested by Ruetlinger and Selowsky. The incidence of hunger is estimated with this methodology from consumption-income relationships. To the extent that personal needs, average daily requirements, income distributions, or Engel coefficients are misspecified, the resulting conclusions on the number of hungry people are also affected. Using different assumptions, Eberstadt, for example, concludes that hunger affects perhaps only 100 million people with the most severe problems concentrated in Africa. By contrast, however, the Commission concluded that between 500 million and 1 billion people suffer from moderate to severe protein-calorie malnutrition (PCM). Large and disquieting as this range may be, it probably has little bearing on America's attitude or its capacity to help with solutions. Hence, there seems little need, at least in this essay, to fine-tune estimates, as further refinement would have little bearing on public policy.

Policy direction, however, does depend importantly on the five words mentioned previously. Of the approximately 800 million people thought to be suffering from moderate to severe undernutrition, about two-thirds are in Asia. Indeed, on a global basis, about 70 percent of all hunger is in nine countries, (India, Pakistan, Bangladesh, Indonesia, Philippines, Kampuchea, Zaire, Ethiopia and Brazil). Any domestic or international pro-

posals aimed at ending world hunger must deal fundamentally with these nations. The difficult formal relationships between the United States and a number of these countries underscore immediately the political dimensions of the hunger problem and the limits to which the United States can now help with a solution--assuming that it wishes to do so.

Irrespective of the exact total of hunger-affected individuals, there are special groups within populations where PCM incidence is the highest. Weanling children from ages one to four present the most serious problem. Whereas cereal-based diets are largely adequate for adults, the relatively low density of these foods means that small children literally cannot eat enough of them to be nourished adequately. In addition, the interactions among under nutrition, poor water quality, and other public health components are especially critical among the young. These interactions are one reason, for example, why infant mortality rates in Africa are more than six times the level of developed countries. As the Report correctly notes, unless infant mortality rates can be reduced, it is unlikely that birth rates can be brought down to a significant degree.

Pregnant and lactating women were also given special attention. The extra strains of childbearing place these groups seriously at risk with respect to nutrition. In addition, a generational effect deserves specific mention. There is almost no existing scientific evidence to suggest physiological relationships between mental retardation and undernutrition. An exception to this statement is that undernourished mothers fail to carry fetuses to full-term much more frequently, and among premature births, the incidence of mental and other handicaps is substantially

higher. On the other hand, there are strong correlations among moderate or severe undernutrition in children, learning motivation, and behavioral patterns.

One important implication for economists of the "children and mothers" component of the problem concerns household allocations of food. Many analysts typically think of household consumption as the central unit of observation. Unfortunately--since the issue presents severe research and intervention difficulties--how food is allocated within families may be at the very core of the hunger program in many situations.

A third component of the hunger problem involves calories. Although this point is increasingly recognized, it also is true that for twenty years many in the nutrition profession had the world pointed in the wrong direction. Indeed, survey work by the Commission indicates that many Americans still believe that protein is the most severely limiting nutritional element. Except in a few localized regions, however, the overwhelming PCM problem is simply getting enough calories. Widespread evidence suggests that groups with sufficient energy resources have typically also found ways to provide the necessary protein complement.

A fourth element in defining global hunger concerns its chronic dimension. Partly as a result of modern communications, the specters of war- or drought-induced famines are well known to most families in the United States. The coverage of events such as the Sahel drought, the Kampuchean and Somalian disasters, or the boat people from Viet Nam are almost daily occurrences on television. Horrible as these situations are, they simply are not the dominant hunger problem in terms of numbers. Clearly the

intensity of the PCM problem is worse in famine areas, but it is also true that famines occur much less frequently or severely than even fifty years ago. In addition, global support can generally be mobilized much more readily for disasters than for hunger of a chronic nature. It is easy enough for responsible persons to grasp the hunger complications caused by drought. It is almost impossible, however, for anyone to visualize one-sixth of the people on earth suffering from moderate to severe continuing undernutrition.

Of all the definitional components, however, the Report comes down most firmly on the issue of poverty. There may be isolated instances where people are undernourished because they are not making good use of local food resources in terms either of total quantity or composition. However, the overwhelming reason why people are hungry is not because they are ignorant or uneducated, but rather because they are poor. The recognition that poverty, and not food production, is the major problem is an important step forward, especially for the agriculturalists (and others) who may believe the contrary. Yet the implications are very sobering on two counts. First, a question is immediately raised as to whether those "who are poor, need not be hungry as well" (Report, p. 40). In the United States, largely through the Food Stamp Program, it has been possible to separate these two afflictions. Given both the resource costs and the administrative problems encountered in America, however, can or should similar programs be replicated in low-income nations? Second, if it is impossible to separate hunger from poverty, what can outsiders--even well-meaning ones--do to help attack the fundamental problems of income levels and distribution? This latter issue was at the base of many of the

Commission's deliberations. Given the wide range of political views represented on the Commission and its staff, many of these sessions exhibited heat if not light.

Vigorous debate notwithstanding, the Commission came eventually to a shared perception of the major causes of global hunger, and also to some of the needed solutions that followed directly from problem definition. For example, it agreed that improvements in nutrition and infant mortality were a prior condition to solving population-growth problems and not vice versa. Similarly, it concluded that increased food production was a necessary, but not sufficient, condition for solving hunger. But in other areas, mainly associated with methods for alleviating poverty, the Report contains curious contradictions, both in the main text and in the numerous dissenting comments.

Hunger Alleviation Within The World Food Economy of the 1980s

Of the numerous operational recommendations in the Report, issues surrounding trade, debt, and world food security occupy a prominent position. Some of the reasons for this focus are clear. The rise in oil prices had badly hurt a number of low-income food importing countries that had been caught in a double balance-of-payments bind during the 1970s. Agricultural trade, including food aid, were also fields in which the United States was dominant. Somewhat ironically, however, the linkages among agricultural trade, poverty and hunger are among the weakest analytically in the entire Report and a generally inadequate case is made for linking hunger problems with other developments in the world food economy. Of fundamental importance is the fact that "hungry people" are not the cen-

tral element in the world economy for food products. Moreover, the global environment is probably becoming more, rather than less, difficult for solving hunger problems.

The 1970s represented a transition in the world food situation. This change consisted of many components, only two of which will be highlighted here. One fundamental element centers around the demand for meat. Between 1960 and 1980, the amount of grain consumed globally by animals doubled, from 20 to 40 percent of total cereal production. In 1980, for example, more grain was fed to animals than consumed by the 1.4 billion people living in countries with per capita incomes of less than $250. Although the decade of the 1970s still saw many people mired in poverty, it also saw numerous groups and nations reach a state of affluence that involved greatly increased demands for meat. Such diverse nations as Nigeria, Taiwan, China, South Korea and Mexico became major entrants into world feed grain markets.

The second major element of the 1970s, about which there is still great debate, involves events within the United States. At the present time and at present prices, there appears little excess capacity within American agriculture. Moreover, much of the recently utilized agricultural capacity has already been "exported". In 1970/71, the United States shipped 41 million tons of grain which represented 37 percent of global cereal trade. By 1980, the export share had risen to 56 percent and to 118 million tons. With already large exports and with some evidence of stagnating productivity within agriculture, the next decade will surely see a reduction in the rate of export growth from North America. The decade will probably also

see rising real prices of grain globally and increased price variability as well.

This is not an essay to develop fully a prognosis for the 1980s. However, the foregoing comments, cryptic as they are, have important implications for an assessment of the Report and for suggestions on future public policy on world hunger.

First, by not laying out more carefully a broader view of the world food economy of the 1980s, the Commission failed to stress the increased likelihood of difficulties in solving hunger problems. Such a view of the world would have also given much more force to the Commission's recommendations on trade, debt restructuring, compensatory finance and food security.

Second, a more interdependent view of the 1980s (with respect to countries, commodities and hunger/commercial issues) would have added support to the Commission's theme on self- reliant production within low-income countries.

Third, a broader view of the 1980s might also have permitted the Commission to take a stronger stance on some areas in which the United States should be cautious--for example highly subsidized corn-based ethanol plants.

Program Elements for the Future

Most of the Commission's Report is as relevant for President Reagan as it was for President Carter. Global hunger continues to persist, and if any-

thing, it is more likely to be a destablizing international influence in the future than it was in the past. At the risk of making very difficult issues sound superficial or the solutions seem easy, the case for a renewed American focus on hunger-alleviation can be broken down into seven operational propositions. On the whole, these principles are consistent with the Report, although they also reflect personal preferences and the political changes that have occurred since the termination of the Commission.

1. Given an increasingly interdependent food world, the hunger topic is an appropriate focus for America's relationship with developing countries.

Of all the broad areas in which the United States could play an important leadership role, food and agriculture would seem to be pre-eminent. The extraordinary productivity of American agriculture, the well- (indeed over-) fed character of the American people, and the dominance of the United States in the global food system give this country credibility in the food area as perhaps in none other. Moreover, a concern with the poor and malnourished, especially children, is very much in the American tradition.

These widely recognized points, however, may be necessary but not sufficient conditions for making hunger a central focus of development assistance. If hunger is poverty related, as seems clearly the case, it is not a tidy area in which to involve an assistance program, nor is it the only important problem facing developing countries. Moreover, the vastness of the hunger problem may be out of balance with the size of America's aid commitment. Finally, it is abundantly clear that hunger

issues go to the heart of the political economy of many nations. In some countries American concerns about hunger will go unheeded or be counter-productive, and in virtually all countries, most of the resources and difficult decisions will be of a domestic nature. Nevertheless, the hunger area seems to be one in which greater amounts of both public and private support can be mobilized within the United States. More generally, food is a topic which, if not handled properly and expeditiously, could have far reaching international consequences during the 1980s.

2. A focus on hunger means a primary emphasis on agriculture and rural development.

If hunger alleviation is made a focal point of American development assistance, such a concentration implies a concomitant emphasis on agriculture--but not for the reason that most people believe. Increasing food output is obviously important, especially in those societies with rapidly increasing populations and incomes. In terms of reducing hunger, however, the employment and income effects of agriculture are much more important than expanded food output per se. Although urban poverty and hunger may be more acutely visible, the overwhelming numbers of undernourished people are in the countryside. Many (perhaps 60 percent) of these individuals do not have direct access to land. These decentralized and often forgotten groups are also among the hardest to reach with direct consumption programs within the public sector. In the absence of thorough-going agrarian reforms, the key to reducing hunger problems is through additional productive jobs. The distinction between food production and income generation is an extremely important point--one often missed by agriculturalists

and proponents of Food First. It also underscores the urgent need for choice of technique analyses based on social-profitability rather than on preconceived notions of what should be considered "modern".

3. A primary emphasis on agriculture means increased focus on relevant agricultural technology.

In the Commission's deliberations, the issue of agricultural technology was hotly debated. Part of the controversy had to do with the problems of tractors and mechanization in "labor-surplus" areas and part with the failures of introducing annual crops on delicate forest soils. Issues surrounding seed technology and the appropriate use of fertilizers and pesticides also fueled the debate. At least in part because of these controversies, the Report was largely silent on the importance or limits of agricultural technology in an assistance strategy for the United States. This silence may have been one of the most severe limitations of the Commission's analysis.

In spite of much-heralded developments in wheat and rice, involving now some 50 million acres mainly in the irrigated regions of Asia, the overall record on improved seed technology is rather poor. New developments with open-pollinated corn varieties re-engineered for tropical conditions will soon be available, and new packages for sorghum and millet also offer substantial prospects. There is active research underway as well for beans, cassava, and vegetables that promises to be relevent. Nevertheless, in assessing technology needs and accomplishments to date, it is clear that much research is needed, especially for rainfed agriculture. Fortunately, the general area of agricultural research is one in which the United

States has a comparative advantage. Many of America's processes for developing technology are certainly relevant even if much of existing American technology is not directly transferable. Technology is also an area where both the public and private sectors in the United States have much to contribute, as do the universities-- even some that do not belong to the land-grant fraternity!

With a limited development assistance program, finding an appropriate niche for American involvement is extremely important. For example, land reform may be more vital than technology in alleviating hunger in some regions, but American efforts to promote agrarian reform in other countries are almost sure to be counterproductive. By avoiding some of the mistakes on technology that have occurred in the past and by recognizing that technology cannot solve all the problems of development, it should be possible to develop a large, positive program in this field. Fortunately, many of the relevent institutions (for example, the Consultative Group on International Agricultural Research (CGIAR) and the Board for International Food and Agricultural Development (BIFAD), are in a position to make this technological promise a future reality.

4. For agricultural technology to be effective, large investments will be required, especially in such fields as water-resource development.

Presumably neither the Carter nor Reagan Administrations have been particularly happy with the price tag that the Commission attached to hunger-alleviation. Unfortunately there are no "cheap fixes" on food and agriculture, and the Commission called for a rapid tripling in the appropriations for foreign aid, much of which was to go for hunger causes. Particularly

at a time when cuts in expenditure are the order of the day, such a recommendation requires further comment.

Although there has always been a limited lobby on foreign aid, it seldom draws the passionate support of many other allocations. In recent years, this problem has been accentuated by an unusual combination of political forces. Many on the political right have seen foreign aid as a costly give-a-way to be stopped. The left has become so enamoured with "the-small-is-beautiful" syndrome that they have significantly downplayed the very real investment costs that will be essential if third-world nations, with external assistance, are really to attack hunger. The net result has been an increased number of restrictions on aid allocations, such as on rural infrastructure, and a deceleration in the level of aid authorizations.

These effects can be seen in the official review of overseas development assistance published by the OECD. In 1979, for example, the United States ranked 15th among DAC countries in terms of its percentage of GNP devoted to bilateral and multilateral assistance to developing countries. Indeed, with only 0.2 percent of GNP devoted to aid, the United States share exceeded only that of Italy and Austria among the 17 nations that make up the Development Assistance Committee. The specific rationale for a larger American share will be discussed later, but a <u>prima facie</u> case for larger sums can be made just on the basis of the foregoing data.

Two cost components deserve special comment in the context of hunger. One of the severest problems in improving the nutrition of hungry people involves water-resource development. The Asian concentration of hunger

has already been mentioned. Moreover, by the year 2000, about half of the entire world's population will live in areas defined by the 10 largest river basins in Asia. These basins, with their problems of irrigation, erosion, flooding, salinity and drainage, contain many of the world's poorest people. Without some improved control over the production environment, the potential for new agricultural technology is very limited. If unprecedented migration and other problems are to be avoided, substantial investments will be needed to create dynamic rural communities where productive employment and incomes can increase. Most of the resource mobilization will have to be accomplished locally, but international resource transfer is also vital. Since many of the basin problems cross borders and involve several countries, outside agencies have a particularly crucial role to play. Regrettably, there is no cheap way out on this investment issue. People who want to attack hunger without significantly adding to the investment totals are kidding themselves or each other.

Second, for both the technology and water-resource fields, there are important roles for both bilateral and multilateral initiatives. The Report underscores the complementarity of both approaches and urges strongly American support of the soft-loan window at the World Bank (IDA) and the international agricultural research effort which the World Bank coordinates. Similarly the Commission's suggestions on debt restructuring are in the same general direction, since debt roll-over in many instances is identical with increased flows of untied aid. While the investment needs are large, they are not beyond the capacity of the world to manage. The International Food Policy Research Institute (IFPRI), for example,

suggests that an additional $7 billion investment annually (in 1975 dollars) during the decade of the 1980s would increase the annual world cereal output by nearly 200 million tons by 1990. This sum compares with the approximately $80 billion supplied to less developed countries in 1979 from external aid and loan resources.

5. For technology and institutions to pay off, a substantial reorientation in economic policy will be needed in less-developed countries.

One seemingly curious feature of the Report is its simultaneous emphasis on trade and self-reliant growth. When put in a slightly broader context, however, this contradiction disappears.

The recent growth in world cereal trade has been very large; it has also begun to substitute for domestic stock-holding. Whereas global cereal trade in 1980 was approximately three times larger than in 1960, ending world grain stocks in 1980 were absolutely smaller than in 1960, and only about half as large relative to annual production. For reasons alluded to earlier, some slowdown in the growth of trade can be expected, probably accompanied with rising and more variable international prices of grain. While cereal trade will clearly continue to be important for many "hungry" nations, the costs of an international "solution" to their food problem will likely be higher in the 1980s. This view of world trade thus provides a logic for an increased emphasis on domestic growth in agriculture to supply both food and employment.

Technology and investment provide two legs of the productivity triangle, while price and trade policy supplies the third. In general, low-in-

come countries tend to discriminate against the agricultural sector and to provide less than international prices to their farmers. For a long-run production solution, raising prices to farmers in many countries is absolutely essential. However, it is more than sheer neglect or urban bias that keeps governments from making this change. Higher food prices also mean lower real incomes, especially for poorer groups who may spend up to 80 percent of their incomes on food. This basic pricing dilemma--short-run consumption losses versus long-run production gains--needs to be recognized for the very real problem that it poses, even for the most responsible government. Too many analysts have been content to deal only with the production issue. Neither AID nor the World Bank, for example, has been willing to do much in quantitative terms in support of consumption/nutrition projects or in aiding transition programs designed to put in place new food-price policies. A sympathy towards this basic consumption-production dilemma and a willingness to use food aid and other types of development assistance toward new policies is critically needed if the United States and other donors are to be helpful in solutions to the food problems actually faced by low-income countries.

Unfortunately, the Report is largely silent both on the price-policy dilemma and the further complications this problem creates with respect to consumption programs. Untargeted programs, such as physical rations for everyone, have very high relative resource costs in poor societies. On the other hand, the administrative problems involved in reaching only the poorest groups, especially in rural areas, are immense. Helping to resolve this dilemma will be a task on which agricultural economists can make an important contribution in the years ahead.

6. It is in the economic and security interests of the United States to assist in hunger alleviation and in the creation of a more stable world food economy.

The redirection and expansion of American assistance to help fight global hunger that is being suggested here raises the obvious question of whether such changes would be worth the price to the United States. The Commission took the view that recommended programs would have little chance politically unless the suggestions could be shown to be rather directly in America's own interest. Such a view will perhaps be abhorrent to humanists, but they will be pleased to know that the Commission answered the self-interest question with an unequivocal "yes." The basis for this affirmative assessment was two-fold. The first element stressed growing economies and trade, using rather traditional arguments. The second explanation, and by far the more important, stressed the national security implications of food. The fact that several of the nations with substantial hunger also have a nuclear capability was one aspect of the argument, but not the major element. More broadly, food in the 1980s was seen as a potentially destabilizing force--in the manner, if not the same magnitude, that oil had been in the 1970s. Lest that view be casually discarded, one need think only of recent food crises in Poland, Russia, Egypt, Kampuchea, and Ethiopia. Consumption (though not necessarily hunger) issues were central in each case, and in several of these examples, the potential for international conflict was clearcut. This broader view of security would seem to be a natural complement to the military expenditures that have taken on a heightened priority under the new administration.

7. Given that hunger alleviation is in the self-interest of the United States, substantial changes will be required in American attitudes and capabilities for working with developed countries.

If the United States chooses to make hunger issues the center of its development assistance effort, more than marginal changes will be required. Additional dollars will be needed in support of research and investment. The Agency for International Development will have to overcome its inadequacies in technical competence to deal with food and agricultural issues. The United States will need to seek new kinds of formal relationships with several key nations. Above all, the President and Congress will have to lead. Most of the leadership involves doing new things, but it sometimes involves not doing things as well--not attempting to use food as a political weapon, not promoting uneconomic gasahol installations, and not failing to recognize the severity of the hunger problems, even in countries whose governments the United States dislikes.

With a clearer sense of direction, the United States is now in a unique position to assist countries in helping to solve one of the worst problems of mankind. Without renewed efforts on the part of the United States and all countries, however, global hunger problems will become more acute and destabilizing before the end of the century.

Footnotes

* Walter P. Falcon is Farnsworth Professor of International Agricultural Policy and Director, Food Research Institute, Stanford University. From 1978-80 he served as a Commissioner on the Presidential Commission on World Hunger.

The helpful comments of Bruce Johnston, Scott Pearson and Anne Peck are greatfully acknowledged. Variations on the themes of this essay were given previously at Macalester, Purdue and Michigan State Universities.

1. The Commissioners included: Sol Linowitz, (Ch.), Jean Mayer, (V.Ch.), Steven Muller, (V.Ch.), Norman Borlaug, David Brooks, Harry Chapin, John Denver, Robert Dole, Walter Falcon, Orville Freeman, Benjamin Gilman, Patrick Leahy, Bess Myerson, Richard Nolan, Howard Schneider, Adele Simmons, Raymond Singletary, Jr., Eugene Stockwall, Clifton Wharton, Jr., and Thomas Wyman.

2. The Presidential Commission on World Hunger no longer maintains an office; however, copies of the Report are for sale by the Superintendent of Documents, Government Printing Office, Washington, D.C. 20402. (Stock No. 041-002-00015-8 at $6.00 per copy.)

3. An exception to this statement involves infant feeding practices, where educational efforts can sometimes make an important difference.

4. Section V of the Report deals specifically with hunger in America. The commission concluded that the Food Stamp Program had been effective in solving most hunger problems in the United States. It argued against

restrictive budgetary ceilings on the Food Stamp Program and urged greater efforts in making sure that groups such as American Indians and the elderly were enrolled as participants. Space limitations preclude full development of the "hunger in America" portion of the Report in this essay.

5. This view of the 1980s is developed much more fully in Falcon, Pearson, and Timmer.

6. The Report strongly urges an international agreement on grains that includes substantially increased reserves. However, the technical problems with international agreements and their recent history do not inspire confidence about the likelihood of their being successful in the 1980s. Moreover, any new grain agreement must be able to reconcile both North/South and East/West negotiating stances. Under these circumstances the United States can probably be of greatest assistance by helping less-developed nations with the production, financial and storage flexibility these countries need to accommodate international price instability.

7. The Gallup organization was employed by the Commission to undertake a poll of Americans about world hunger. The results indicated a widespread misunderstanding of the severity and nature of PCM problems. They also showed that, in relative terms, Americans were very concerned about world hunger issues.

References

Eberstadt, Nick. "Hunger and Ideology", Commentary, Volume 72, No.1, July, 1981, pages 40-49.

Falcon, Walter P., Scott R. Pearson and C. Peter Timmer. Food Policy Analysis for Practitioners, Chapter VII, forthcoming.

Gallup Organization, The. Tabulations Prepared for Commission on World Hunger. Princeton, 1979.

Moore, Francis and Joseph Collins. Food First: Beyond the Myth of Scarcity. Boston: Hougton Mifflin, 1977.

National Academy of Sciences. World Food and Nutrition Study. Washington, D.C., 1977.

Oram, Peter, Juan Zapata, George Alibaruho, Shyamal Roy. Investment and Input Requirements for Accelerating Food Production in Low-Income Countries by 1990. Washington, D.C.: International Food Policy Research Institute Research Report Number 10, September, 1979.

Organization for Economic Cooperation and Development. Development Cooperation: 1980 Review. Paris, 1980.

Presidential Commission on World Hunger. Overcoming World Hunger: The Challenge Ahead. Washington, D.C., March, 1980.

Reutlinger, Shlomo and Marcelo Selowsky. Malnutrition and Poverty, World Bank Occasional Paper No. 23. Baltimore: Johns Hopkins Press, 1976.