PERSPECTIVES ON THE WORLD FOOD CRISIS

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Perspectives on the World Food Crisis

The struggle to obtain enough food to survive has plagued human existence throughout history. Thirty famines have been widespread and serious enough to be recorded in world history books. The advances in agricultural technology and the development of modern commercial farming in the 19th century gave the hope that the world could one day adequately feed its people.¹ In recent years, this hope has been dimmed by rapid overpopulation and only moderate rates of agricultural development. Today agriculturalists, nutritionists and economists agree that the current situation is substantially more ominous than ever before.²

The United Nations food experts estimate that 32 countries around the globe are desperately short of food.³ In South Asia, in parts of Africa and in Latin America, food shortages and high food prices are taking a growing toll of human life.⁴ Presently we provide adequate resources for only about one-third of the human family. It has been conservatively estimated that almost a half billion people throughout the developing world suffer from malnutrition.⁵ One out of every three children born into the world will suffer permanent physical or mental damage because of hunger.⁶ In some underdeveloped countries 25 to 30 percent of all children die before their fifth birthday.⁷ Throughout the world 10,000 people die daily from malnutrition. Last year in the Sahelian countries alone, 100,000 people were felled by famine.⁸
In 1967 William Paddock wrote a book entitled *Famine 1975*. Within its pages are found these words:

> 1975 will be a crucial year in the world, crucial because the world food shortages will then dominate the headlines and the results will be in full view . . . No doubt for a decade at least, actual starvation will be rare and localized and disaster on the grand scale will be forestalled by modern means of transportation and by emergency actions . . . 6

Much of his message is now being reflected in the current statements of others. FAO Director-General Addike H. Boerma feels a turning point has been reached in the world agriculture which bodes ill for millions more of the poor.10 Peter Laurence states the absurdity of the situation that in the 20th century, with all its technological advances, hundreds of millions of human beings could potentially starve due to quirks of weather of a new strain of pests.11

Yet, individuals such as William Paddock and Georg Horgstrom have been labeled as alarmists and doomsday prophets. Congressman Richard T. Hanna of California stated that the world has the potential to feed ten times the present population of the earth or 30 billion people . . . 12 Colin Clark, an Australian economist, estimates that 35 to 47 billion people could be supported.13 Laurence Simon has taken an even stronger stand. He says "there is no scarcity . . . food is plentiful."14

Whether or not the world has the potential to provide adequate food for all, the hard cold facts are that for an estimated 700 million people, hunger is commonplace and the prospect of agonized death by starvation is a grim fact of life.15 "Famine isn't like a satellite count-down . . . it develops slowly; experts wring their hands and the public pays no attention --- then suddenly it is headlined," states William Paddock.16

1973 witnessed a dramatic upsurge in interest in the world food situation.
The reason for this interest developed from media coverage of the global scarcity of food supplies and rising food prices. In the past year the United States' shortages were reflected in soaring food prices, up by 20 percent. This growth in farm product demand did not suddenly appear, but has been growing steadily for a number of years.

In the last ten years the world grain consumption has increased by 64 percent. A number of factors have contributed to today's "food crisis." New Republic labels it as a crisis of four f's --- food, fuel, fertilizer, and fertility.

The term "overpopulation" was totally unfamiliar to the society of the 19th century. The 1820's boasted a population of only one billion, yet by 1960 two billion inhabitants had been added to the world's population. Only 15 years later (1975) four billion people are estimated to be alive; and by the year 2000 the population is expected to double again. E. R. Sen in 1967 estimated world food requirements for projected world population would necessitate and increase in food supplies of 34 percent between 1965 and 1980 and of 97 percent between 1965 and 2000. Professor Carroll Wilson of Massachusetts Institute of Technology states that it is clear that population cannot double as is expected by 2000 and still be fed.

If a two percent population growth demand on food resources wasn't enough, a new major claimant has been added. We are living better than people have ever lived. As soon as people get enough calories in their diets, they start trying to improve the quality ... usually this means protein and demand for livestock products. With the rise in incomes of areas such as Western Europe, Eastern Europe, Soviet Union and Japan,
demand for livestock products has increased. It is estimated that a one percent increase in income is approximately equal to a one percent increase in livestock demand. 22

Unfortunately livestock protein is resource-expensive. Three times as much resources are required for one pound of chicken than one pound of cereal. Beef is estimated to be seven times as resource-expensive. Not only have other countries increased their demand for livestock products, the United States has added significantly to the problem. The per capita beef intake alone has doubled since 1950. 23

In 1972 world food production declined one percent. In relation to the population growth for that year, the actual decline amounted to three percent. As the world output declined, exports (primarily U. S.) increased 30 percent to make up the deficit. The result has been a depletion of existing stockpiles by 40 percent worldwide. In the 1960's global grain reserves totaled three months plus. Today the reserves have been literally eaten away to less than one month's (specifically 27 days). 24 There are no more surpluses, yet there must be reserves. 25

The effect of the energy crisis has been critical. "The high oil prices have shattered the ability of developing countries to purchase food, fertilizer and other goods," states Henry Kissinger. 26 In 1971 India spent approximately $560 million on three basic products: crude oil, fertilizer and about 2.1 metric tons of food grains. To obtain the same amount as purchased in 1971, India today would pay $3.1 billion (five times more). 27 The rise in petroleum prices created not only a worldwide shortage of nitrogen fertilizers, but also greatly lessened the ability of farmers in poor countries to pump water for irrigation. 28
To quote Secretary of the Treasury, George Schultz, "the effect of oil price changes are likely to be nearly catastrophic for some of the poor areas of the world."²⁹

Some environmentalists think the world weather patterns are changing as a result of the cyclic patterns of weather and the growing pollution of the atmosphere. This has resulted in lower food production in areas such as the sub-Sahara Africa, South Asia and China.³⁰ The monsoon rains in South Asia are spreading farther south, reaching the sea rather than the rice lands. The Sahara desert is also known to be moving southward, changing the life patterns of thousands of Africans.

The political and economic policies of nations have also contributed to the current food situation. 1972 saw a dramatic change in Soviet food policies. During past poor harvests the Soviets liquidated their cattle herds, thus decreasing grain demands. Today the Soviet people are demanding a higher standard of living, thus making decrease in beef products virtually impossible without "riots at food stores."³¹ Therefore the Soviet Union went into the world food markets to purchase additional grain.

Agricultural vulnerability itself is a reflection of the priorities of political and economic systems. In India irrigation has only increased 1.5 percent in the last 25 years. However, 57 irrigation schemes, which could have avoided the disaster of starvation for thousands, have been stalled for up to eight years for political and economic reasons.³²

Inflation in the United States and abroad dealt a blow to the world food crisis. Increased costs of farm equipment, transportation, land and labor have influenced food costs. Some poor countries already are spending between 70 and 80 percent of their incomes for food and cannot afford to
spend more. Thus, starvation for their populations may become an inevitable reality.

Because the components influencing world food problems are complexly intertwined, so should the solutions and implications be interdependent. Dr. Jay W. Forrester, professor of management at M.I.T., views the situation as an inter-relationship. He states "for the first time, there exists a very tight interdependence between technology, economics, politics and even ethics ... ."33

Increased starvation and dwindling food reserves brought nations together in Rome during November, 1974 to discuss the plight of millions. Although the World Food Conference was not hailed as a triumphant success, it did bring forth some proposals for action. The establishment of the World Food Council under the aegis of the United Nations was determined. It's purpose is to funnel to needy nations both food aid and investment funds for development of agriculture. An international system of grain reserves, to be held in individual countries, was also set forth.34

Nations also resolved to pledge to increase food aid by ten million tons. With the establishment of "early-warning system," it was hoped that information concerning the state of world harvests and hunger could be more effectively communicated, thus reducing the death toll for millions. These are only four of the major proposals accepted by the delegates to the World Food Conference; each policy endorsed to a greater or lesser degree by each nation. Sayed Harei, General Secretary of the World Food Conference, stated at its close that "the judgement of the success or failure of this conference is going to be made by the hungry men in Africa and Asia, not by those who have sat here."35
The participants of the World Food Conference are not the only individuals proposing solutions to the current situation. Experts in all fields of agriculture, economics, politics and nutrition are suggesting various answers to food shortages and increasing hunger. Perhaps the most universally agreed upon proposal is the need for a worldwide effort to stabilize the world's population.

"If we continue to allow the world's population to climb, it will become an increasing struggle for survival, with survival of the fittest more and more clearly emerging as a rule of the game."36 "Propagating the population explosion will spell tragedy for family, insurmountable problems for nations, and disaster for the world."37 We have reached the point where future population growth will be reduced either by deaths or declining births. Our choice has finally become very simple --- between famine or family planning.36

because birth control efforts are often stymied by political, moral and economic considerations, population control methods must include education, nutrition, decent housing, productive work, and etc. A package for population control must contain the following elements:

1. Family planning services equally available to all. Such a program would include education to make fertility control understandable.36

2. Health care to reduce infant mortality. In many developing areas, large families are produced just to ensure the survival of some of the children.60

3. Meeting of basic economic and social needs of the poor. Employment opportunities for both men and women will increase personal security. Basic agricultural development and concomitant land income must be redistributed to give the majority a stake in economic development.61

4. The development of new roles for women, making it possible for their achievement of social status and self-fulfillment through activities other than bearing and rearing offspring.62
5. National economic and social policies must be devised that encourage and promote low fertility.43

Although no one can doubt the need for population reduction as a solution to the food crisis, its effect may not be realized for a quarter of a century. Dr. D. R. Sen (Director of FAO during 1967) states, "Even if birth control measures were adopted on a wide scale, population would still increase substantially because of the large number of children who will be forming their own families ten, 20, or 30 years from now."44

Secretary of State, Henry Kissinger has stated "that our minimum objective during the next quarter century must be to more than double the world food production and to improve its quality."45 Greater productivity must include increasing production in developed nations as well as accelerating production in developing countries.46 It has been estimated that yields on currently producing acres in developing countries could be doubled or tripled if modern technology was employed.47 This requires more investment capital --- much of which must come from sources outside these countries. Incentives for infusion of capital into agriculture of developing countries must therefore be sought. We must determine, also, how to apply creative lending practices in extending production and equipment credit.48

Crville Freeman, Secretary of Agriculture during 1960's, suggests the establishment of an array of major international agricultural firms which could supply the necessary experience, technology and managerial information to put idle acres and ineffectively cultivated acres to use.49 To provide the incentives for increased production, the benefits received from selling crops must be increased.50 The production of inexpensive fertilizer (perhaps making use of gas flared off at wellheads) must also
be explored. Yet Georg Bergstrom cautions

Modern agricultural techniques are so capital- and energy-demanding that they cannot be copied by poor nations. Major attention needs to be devoted to less costly and presumably more labor-intensive approaches.\textsuperscript{51}

An even greater effort must be placed on agricultural research and better growing and harvesting techniques.\textsuperscript{52} Increased production will also depend upon research --- developing new disease resistant crops, increasing efficiency of water use, and finding ways to combat soil deterioration and erosion.\textsuperscript{53} A host of projects are now being developed dealing with growth and improved quality of various forms of plant life. These include the acceleration of photosynthesis, production of hybrid strains without conventional bisexual pollination, attaining plant growth in saline soils, and growing plants hydroponically (in liquid nutrients).\textsuperscript{54}

Laurence Mayer, while supporting vigorously these research measures, admits that some of these in time might . . . \textsuperscript{55} The problem is that time is running short for millions of people facing starvation. William Paddock states

\ldots nor will research produce in time new seeds, new techniques or new plants for farmers to sow and reap.\textsuperscript{56} This brings us back to impasse of trying to feed new millions from today's land with today's seeds and today's agricultural techniques and preferably feeding with foods already known.\textsuperscript{57}

If time shortage wasn't detrimentally enough, new "food ecologists" are adding to the problem. While the world is looking to science for new food production technology, scientists must spend their time defending already proven technology.\textsuperscript{58} A case in point is the current controversy over DES, diethylstilbestrol, used to fatten cattle. It has been concluded that only one case of vaginal cancer in the entire United States population in 5,000 years will result from its use. Without DES, another three to
five million acres of corn will be needed yearly to produce the same amount of beef. 59

Lester Brown points out that there are now some important constraints in the effort to expand global food production. 60 Traditionally production has been increased by increasing the acreage under cultivation. In the future, this will be limited in scope. The amount of idle crop lands in the United States alone is dwindling. In 1966 and 1967, 50 million acres were brought back into production. By 1973 the United States Department of Agriculture had permitted two-thirds of the idle acres to come back into production. 61 Competing uses (e.g., industry, recreation, transportation, residential development) are also reducing the amount of land available for agricultural use. 62

Earl Butz, Secretary of Agriculture, is calling for greater emphasis on tropical agriculture. He describes tropical forest lands as "one of the greatest untapped agricultural areas of the world." 63 Some scientists are cautioning about the delicate ecological balance of such regions. Therefore, widespread and intense conversion of tropical lands to food production does not, in the present state of our knowledge, appear to be an acceptable answer to world hunger problems. 64

Brown also sees water availability as a limiting factor in increasing production. Most of the rivers that lend themselves to damming and irrigation have already been developed. New techniques, such as division of rivers, desalinization and manipulation of rainfall pattern, must be developed. Today, desalinization is only valid for such limited use as drinking water and some limited normal household consumption, but not for irrigation of agricultural lands. 66 Again the technology is available but has not yet progressed to be economically feasible for public use in the
Another aspect of the food crisis solution is continued financing of exploration of additional food sources and improvement of present sources. Barbara Best predicts that we will "see more fabricated protein foods as a result of difficulty and expense in obtaining raw commodities. 67 Most of the world is now familiar with textured vegetable protein in some form. It can be processed to have essentially the same flavor, appearance and texture of ground beef, diced chicken, ham or seafood. Carl Butz suggests that by 1980 soybeans will stretch all pork and beef consumed in the United States by 8 to 10 percent. 68 A. S. Clausi, of General Foods Corporation, adds "textured vegetable protein will, no doubt, open the door to foods that don't resemble anything we're presently familiar with." 69

Continued development of other oilseeds (including cottonseed, safflower, sunflower, peanut and sesame) is also expected. The cottonseed appears to be the most promising. There is still some problem with the seed's pigment (gossypol) being detrimental to humans, but seemingly new technical developments have, for the most part, eliminated this problem. Production of cottonseed flour is now beginning in southern Texas. 70

Scientists are broadening their studies to include other potential sources. Researchers are now exploring the human food potential of non-toxic green leaves particularly alfalfa. 71 As a nutritious powder, there are still problems with taste, pigmentation and protein quality. Single cell protein, produced by fermenting yeasts and a variety of materials, is also being investigated. However, it will be at least ten years before the process will be perfected for human consumption. Predictions for the future include protein synthesized by such a manner from crude oil, sewage,
old tires, newspapers and even cow manure.\textsuperscript{72}

The oceans have long been an anticipated source for additional protein. Fish protein concentrate, made from fish not generally consumed by humans, offers another source of protein. However, at the present time cost, taste and difficulty in texturizing are limiting factors to consumption.\textsuperscript{73} Scientists are now voicing concern that the global catch of table-grade fish is at a near maximum. Since 1969 the annual catch has been fluctuating rather unpredictably.\textsuperscript{74} Lester Brown feels that there is an urgent need to evolve a cooperative global approach to management of oceanic fish. He states that failure to do so may result in continued depletion of stocks, reduction in catch and soaring seafood prices.\textsuperscript{75} If the fish catch does not continue to increase, pressure on land-based protein can be expected to increase substantially.\textsuperscript{76}

Improvement of present sources of food must also be pursued. The General Foods Corporation has established the following criteria for developing new high-protein products:

1. The product must fit naturally into existing dietary and other social patterns.

2. It certainly cannot be more expensive and preferably be less expensive than the conventional product.

3. The product must contribute significantly higher quality protein than the conventional product.

4. It must be produced from readily obtainable raw materials, have a long shelf life at ambient conditions, and be easily prepared.\textsuperscript{77}

However, they point out that "development and establishment of a low-cost nutritious food is a long-term, high-risk activity, and difficulty of developing the product is only one part of the problem."\textsuperscript{78} In describing their experience with such a project, General Foods' A. S. Clausi
Over eight years ago, we identified what we believed to be a viable approach to the problem . . . and have made our high-protein pasta technology available on a non-profit basis to those who can use it. Broad efforts were undertaken to promote an interest in and use of technology and the product . . . the progress, thus far, has been slow and difficult.79

It is a fallacy to believe that governments of developing countries, local organizations and/or target populations are waiting with open arms for acceptable products with superior nutrition.80 The truth is that governments and interested organizations must be educated and convinced that these products are highly nutritious and at the same time, are at least as acceptable as the conventional products . . . Continual contact and communication with the involved groups are essential if the program is to advance toward planned goals.81

Perhaps equally as important is research and development of improved methods for food storage and processing. It is finally becoming obvious that major food losses (between 30 to 50 percent) occur after harvest, but prior to consumption.82 Freeze-drying is already a reality, but unfortunately is too expensive to be used in poor countries. Intermediate moisture, presently used in pet foods (eg: Gaines burgers) is being investigated as a possible method of preservation. Research is presently being conducted on prototypes of casserole type products. Technologists visualize the use of immediate moisture in preparing future meats and dairy products, thus eliminating the need for refrigeration and increasing storage for extended periods of time.83

According to the United Nations, the potential solutions exist, but the problem of necessary technology and the creation of social and institutional conditions conducive to rapid agricultural development is prohibiting constructive progress.84 In effect, global commitment of industrialized nations, oil states and developing countries is necessary to
necessary to prevent large scale famine. All this brings us to looking critically at the policies of both the developed and the developing world.

U. S. News and World Report asserts that famine-ridden countries must be pressed to do more for themselves. The present crisis in India has been aggravated by the widespread hoarding and official mismanagement. The refusal of military rulers to abolish feudal systems of land ownership, water rights and food distribution has reduced Northeastern Brazil to a hunger zone. If the hungry nations were to give total time and attention and money to the single problem of increasing local food production while, at the same time, striving to lower population growth, then hope for escape from starvation could be realized.

Yet, if one is hungry it is difficult to find a way out of an unproductive situation. Roger Anderson reminds us that hunger enslaves entire populations by depriving them of their energies, senses and dignity. Thus, we seem trapped between the wages of hunger and the criticism of the developed world.

On the other hand, the policies of the developed world must also be re-examined. Georg Borgstrom points out that we have come to the stage where two-thirds to three-fourths of the world's agriculture and fisheries products cannot be consumed only by a privileged minority. We have reached the point where the more fortunate world is either going to aid other nations even at the expense of higher food costs at home, or turn its back on the hungry of the world. The developed world must begin to realize that there is something profoundly wrong with present policies; only then can a building toward a more sophisticated public consciousness of the problem begin. In fact, it may well be in the self-interest of affluent societies to combine a course of noble purpose with elements of
of self-interest to launch an attack on global poverty. Pope Paul expounds

This demands great generosity, much sacrifice and unceasing effort on the part of the rich . . . Is he ready to pay higher prices for imported goods so that the producer may be justly rewarded? 94

Perhaps the most controversial component of food crisis solutions is the world food bank. Proposed by several experts and endorsed by the FAO, the world food bank would provide some means of maintaining a semblance of order and stability in the world food economy. 95 Those proposing its establishment view the bank as being composed of the following elements:

1. storage for cereals and legumes, providing assurance against famine in densely populated countries after poor crop years 96
2. storage of fertilizer to enable crop production to be quickly expanded
3. reserves of land which can be cultivated in emergencies
4. bank of information and technology to be used for increasing crop yields
5. stores of crop genes that could produce new strains when old varieties are struck by pests or plant disease 97

Proponents for the world food bank include Senator George McGovern and Pennsylvania's Secretary of Agriculture, James McHale. Senator McGovern feels that grain in the hands of private traders who are in business to turn investment into profit as rapidly as possible, is thus really no reserve at all. 98 James McHale's support of the world food bank stems from the charges that 95 percent of all grain reserves in the world are under the control of six multinational agribusiness corporations (Cargill Grain Company, Continental Grain Company, Cook Industries Incorporated, Lreyfus, Inge Company and Archer-Daniel Midland) --- all of them American based. 99
Those who oppose its creation state that economic and political management of international granaries of food reserves would be more burdensome than national reserves. The grain itself instead of moving directly from exporting to importing country, would be detoured into the hands of international middlemen at considerable cost. There would also be countries who would constantly consume, but never contribute grain to the bank. Garrett Hardin, a proponent of lifeboat ethics, views the world food bank as a system where "the less provident and less able will multiply at the expense of the abler and more provident." As a result of such solutions, Hardin foresees that the poor countries will not learn to mend their ways and will suffer progressively greater emergencies as the population grows. Wayne H. Davis, professor of zoology at the University of Kentucky, agrees. "You can't solve hunger problems by feeding hungry people," he states. The ultimate result of this greater interdependence will be eventual ruin upon all.

To what point does this bring us? What is the position of the United States? What about individual implications? What fate awaits the world?

To quote Martin McLaughlin, "at this point the United States does not have a definite world food policy." Since 1962 under Public Law 480 (Food for Peace Program), the United States has provided billions of dollars in grain and other commodities to the poor nations either free or at cut-rate prices. In the mid-sixties the United States was shipping 15 million tons yearly. Today, when food prices are rising at home, Americans are more and more reluctant to share whatever farm reserves are available with the poor nations. By mid-1974 food aid had dropped to a bit more than three million tons.
Raymond F. Good, president of Heinz, U.S.A., contends that the situation is as follows:

The problem of food prices and shortages can only be solved on a worldwide basis. This country must take a leading role. The first step should be the development of a national food policy that gives equal consideration to solving our domestic food problems and to feeding the starving people of the world. 109

Robert W. Dietsch emphasizes that the United States agricultural policy is critical. How will the limited reserves be apportioned among the starving nations? Who will come first --- the highest bidder? --- those with power? Or should food be used as an economic or political weapon? 110

William Paddock in 1967 proposed the policy of triage for the United States. Since the United States will not have enough foodstuffs to distribute to all, the decision must be made as to which countries will receive and which will not. This hypothesis of triage classifies the hungry nations into three groups:

A. those whose population growth has already passed agricultural potential, and those who have inadequate leadership and other divisive factors to make catastrophe inevitable. The "can't be saved." 111

B. those having necessary agricultural resources and/or foreign exchange for purchase of food and able to cope with their population growth. 112

C. those having an imbalance between food and population, but manageable in time with effective birth control methods, agricultural research and other developments.

Those countries falling into Class C will be the recipients of American foods and other types of assistance. 113

How will hungry nations be classified as who will receive and who will not? Paddock offers the following considerations:

a. ignore the prospect that if food is withheld from a country it will go "Communist." A nation in the chaos of famine poses no threat of disaster to the United States. 114

b. ignore the short-range political changes in these countries 115

c. take into consideration the quality of local leadership 116
c. give maximum non-food aid to those nations where we wish short-range political advantages

e. favor nations which have raw materials required by the American and the world economy

f. favor nations which have military value to the United States

Foremost among these considerations should be whether the recipient has an effective program of birth control in operation, adds Science News.

Such a policy is destined to create tremendous controversy. But whether inhumane or not, Science News reports that "the United States has already begun a policy of triage --- deciding which people shall live and which shall starve on the basis of political considerations."

Americans must also take a hard look at their lifestyles. Richard Neuhaus feels that the American public must be relentlessly confronted by the human consequences of world poverty. In these times of growing shortages, a country which has between 5 and 6 percent of the world's population, cannot be allowed to continue to consume more than 10 percent of the world's total food and non-food resources.

An advertisement in Time magazine, showing a picture of a small girl, carries the caption "An ordinary dog in America eats better than she does!!" The ad continues "Christina eats whatever she can find in garbage and that is far less than some prowling dog would find in your garbage can." We are reminded that every 60 seconds five or six children will die from starvation. That is five or six children every minute of the day and night, seven days a week, four weeks, a month, --- a rather sobering thought.

It has been proposed that one less quarter pound of hamburger each week for every American would mean a savings in grain (both in beef and wheat) equivalent to more than ten million tons. This amount of grain is
just about what India will need during this year to stave off malnutrition or outright starvation of millions of its people.125 Earl Butz feels that such action is "nonsense" since reduction here does not mean that the rest of the world will necessarily benefit.

But there are those who would quickly counter that while such acts of individual self-denial may not save the world, they are needed to illustrate dramatically the extent of the problem and our own personal relationship to the catastrophe.126 Today's Health informs us that presently about one acre of arable land exists for each person in the world. Meat eaters are consuming more than their fair share by using 1.63 acres.127

Richard Spilman's poem "Thanksgiving Prayer" helps to remind us of the basic problem of hunger and our responsibility.

Today, O Lord as we belly
before thy table, secure in the lard-lined abundance of fowl and family,
may we, sometime between the swill and balch,
lift uncertain snouts and in our mind's lean eye
look down to our lazari dying
and up through their eyes to our slavery.128

Perhaps it is time that Americans realize that they no longer live in a world of abundance, but in a world of vanishing resources that must be shared.129

What therefore awaits the developing world? Paddock implies that unless agricultural production is sharply increased, mass famine will soon occur. More lives are therefore hanging in the balance in the race between food and people than have been lost in all the wars of history.130 Massive death is only one of the spectors looming ahead for the world.

Errolae reminds us that hungry people are angry people . . . angry that they must eat scraps of cereals and grains leftover after the affluent world feeds its livestock; angry that rich countries become tightfisted in times of shrinking supplies.131 Georg Borgstrom warns that the rich world
is on a direct collision course with the poor of the world. The world at large could be faced with riots, famine and pestilence.\textsuperscript{132}

A fallacy of doomsday prophets you conclude! Newspapers in November, 1964 carried the following story:

Storming mobs of angry Indians brought southern state of Kerala to brink of anarchy last week. Driven by hunger and prodded by the Communists crowds looted shops and warehouses in frantic search for food . . . .\textsuperscript{133}

but you argue that was 1964, not 1975. In the January, 1975 issue of the Saturday Review World, Norman Cousins reported about marchers walking in protest in New Delhi, carrying signs which read "Hungry People are Human, Too!" and "Is India Going to be Thrown on the Rubbish Heap?" The reason for this action was increasing discussion in the Indian press over reports that Western nations feel that no amount of aid can prevent mass famine in India.\textsuperscript{134}

Laurence Simon comments that the impoverished world is politically volatile and civil unrest may soon follow spreading famine.\textsuperscript{135} Robert Heilbroner, in An Inquiry into the Human Prospect offers an even more distributing thought. He foresees the possibility of atomic blackmail by the hungry nations in possession of nuclear secrets. "Such countries," he predicts, "will not hesitate to risk a holocaust if they do not receive a larger share of the world's vital resources."\textsuperscript{136} (Remember India's development of the atomic bomb?)

Is the world thus doomed to increasing famine, pestilence and war? One cannot deny the scale and severity of the world food crisis. The living millions of people on the brink of starvation as well as our dwindling grain reserves point to one conclusion: there is some type of worldwide food crisis. Whether it is the result of overpopulation, growing
affluence, declining production, economic and political policies of nations or a combination of all these factors, the shadow of famine is growing larger.

Because of the tightly interwoven elements of its creation, solutions to the world food crisis will neither be expedient nor simple. Orville Freeman tells us not to be disconcerted by the magnitude of the problem. He feels that solutions do exist. The amount of accomplishment toward this end will be directly correlated to the priorities of the world. Henry Kissinger reminds us

The political challenge is straightforward: will the nations of the world cooperate to confront a crisis which is both self-evident and global in nature? Or will each nation or region or bloc see its personal advantages as a weapon instead of as a contribution?

Time is a definite factor. One must seriously consider Georg Borgstrom's hypothesis that "the supreme test currently facing us is not how to feed the anticipated six to eight billion by the year 2000, but how to manage to get through the next ten years." As for William Paddock's prediction of Famine, 1975 --- only midnight December 31, 1975 will be able to say!!
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