A recent issue of the Economist perhaps put the dilemma best with its headline reading: "Don't just sit there, build an ark".

It's been a long time coming. For at least a decade there have been warning signals about the precarious nature of the world food/population balance. But only of late -- with famine in Africa, bad weather in South Asia, drought and then untimely rains in the United States, skyrocketing food prices, the oil debacle and its effects on agricultural production -- has the public-at-large begun to consider seriously the political and economic implications of what several sober analysts now suggest could eventually mean the doom of a sizable portion of our civilization. Grim solutions that the New York Times calls "unthinkable but no longer unthought" are being given earnest hearing: the "lifeboat" theory (the notion that those secure countries already safely aboard must limit the remaining space to the most promising of the poorer nations still splashing for help, or the boat will become overloaded and all will go down), and "triage" (the First World War medical practice of dividing the wounded into three categories, to avoid wasting medical attention on those with little chance for survival) are being heard from respectable quarters with increasing frequency. Projections from the Club of Rome's statistical models ("The Limits of Growth" and "Mankind at the Turning Point") can be interpreted to add a seal of technological legitimacy to these theories of the modern-day Malthuses.

1/ (Author identification to include institutional disclaimer).
The problem is large, and in many ways frightening. So much so that an uncharacteristic inertia is found among many who earlier had been in the forefront of promoting support for the needy. Although admittedly uncomfortable, the "lifeboat" and "triage" theories now begin to provide intellectual rationalization for their inaction. More dangerous the doomsday predictions -- and the inaction, the disinterest, the sense of impotence to which they lead -- become something of a self-fulfilling prophecy. Do nothing and disaster is inevitable.

But a close look at the situation shows that although the apocalyptic labels make for colorful imagery, they clearly are not appropriate for today's realities. It is within the power of man to prevent masses from starving -- in fact, to provide many people with a better life than they have ever known. Thus, it is important to break the momentum of the current wave of pessimism, and to do it by looking at the problem in proper context, the progress that has been made, the potential, the needs, and what it all adds up to for the future.

I. (The Problem)

The immediate problem is the recent decline in world food availability. Production in 1972 was off 1.6% -- the first drop in 20 years. And that was the year the Soviet Union entered the world market for 28 million tons of wheat, the largest grain purchase in history. The 6% pick-up in production the following year wasn't enough to rebuild depleted stocks, and then 1974 again was a disappointing harvest, down 3% -- all this at a time when population was increasing by 70 million people a year.

Largely because of conscious policies to reduce surpluses by paying to keep lands out of production (the cost to the U.S. taxpayer in
1973, for example, being $3 billion), the grain-rich countries' stock levels fell to their lowest point in 20 years. Had the four largest wheat producing countries -- U.S., Canada, Argentina and Australia -- maintained their 1968 wheat acreages, their production in the following 4 years would have been 90 million tons greater than it was, easily covering the current shortages.

As supplies were decreasing, the demand for grain-fed beef in increasingly affluent parts of the world was soaring, providing direct competition to the poor who consume grain directly. The net effect has been an unprecedentedly rapid rise in grain prices -- doubled wheat prices and tripled rice prices. In a matter of months, the price in Bangladesh of ten pounds of rice rose from 49¢ to $1.90. Since even before the price rises, 80% of the income of the poor was spent on food, the implications to the diet are clear.

Although several major inter-related forces already were at play, a major contribution to the food price surges was the sudden rise in oil prices, from $1.80 per barrel in early 1971 to $11.65 per barrel in early 1974. The high prices imposed by oil exporting countries affected energy requirements for irrigation, fuel for farm machinery, the transport of food and agricultural inputs, and most importantly the price of fertilizer, which has increased fourfold.

The International Monetary Fund estimates that the import bill for food and fertilizers alone by low-income countries has gone up in two years from $6.4 billion to $15.6 billion. So, although aimed at other targets, the increases in oil prices will have their most devastating impact on the innocent bystanders -- on the landless laborers, the marginal peasant farmers, and the dwellers of the favelas and barrios and bustis of the world, and even more specifically on the
nutritionally vulnerable small children of those families. This, in combination with the other forces at work that led to the vastly higher food prices, surely will cause as many people to die or to be debilitated by diseases associated with malnutrition as any major military invasion.

II. (The Context)

Although nearly everyone is feeling the pinch of higher-priced food, the critical potential starvation problems are limited to parts of Africa and South Asia. Starvation is not a threat to Latin America, where production last year was 4% over the record highs the previous year. In East Asia, food production is up 5%, in East Africa close to 6%. An excellent crop year of 260 million tons, for example, has been estimated for China.

Perhaps the most intense attention in the past year has been directed to Central West Africa, the Sahel, where six countries have suffered devastating drought for half a decade. The total population of these countries is under 25 million, approximately 8 million of whom where considered to be at risk last year (and up to half a million who may still be in danger). In Ethiopia, an additional two million people were so hungry they were scratching for grass, while their government was exporting grain.

These ten million Africans at risk would constitute only one-sixth of the population of one medium-sized state of India, such as Bihar. Those familiar with famine appreciate the grief for a lost child is no less real in a sparsely populated region than one that is densely populated, but when lifeboat and triage theories are being promoted with the intention
of influencing national policy, it is important to put the problem in quantitative perspective.

In India today, the situation is bad. The harvest is down 4 million tons from last year, which itself was short 2 million tons. But much of the country's shortfall has been replaced by cash purchases. The situation will be tight, but India may be able to squeeze by this year, although clearly there will be pockets of distress, most prominently in West Bengal.

Pakistan, short a million tons, also looks as if it will get by. But in Bangladesh, with a 2.3 million ton shortfall, the population is vulnerable. A large commercial purchase arranged early last year fell through when Bangladesh was unable to put cash on the line. The flow of hungry migrants into Dacca has finally stimulated crash efforts to ship the country as much as it can handle. But for many it is already too late (estimates of the dead range upward from 15,000).

The world food situation is serious -- and in areas like Bangladesh, of crisis proportions. But starvation is not global and mass starvation is not inevitable.

How many will starve to death? It is too early to predict how many, like those in Dacca, will simply drop from starvation, but it is not likely to be in the tens of millions as some commentators would imply. (There is in famine conditions a human resiliency that defies the calculations of statistical charts of nutritional requirements.) What is predictable is that many millions, especially children, will die from relatively minor ailments because they have no resistance to fend off such diseases as measles, chickenpox, and whooping cough. They are not only the inhabitants of isolated geographic areas but of the developing world as a whole. In
normal years, a billion-and-a-half people do not have enough of the right foods. High prices will mean even less for the poor to eat and less variety in their diets. Clearly, malnutrition will increase and so will related infant and child mortality.

Today's food problem will, moreover, have a direct effect on the physical and mental growth of the survivors. Food intake in early life and physical growth are clearly linked. The average twelve-year-old in many poor countries has the stature of an eight-year-old in more affluent areas; his performance, a number of scientists report, is more like that of an eight-year-old than a twelve-year-old.

In short, the focus of the immediate food problems of the world should not be limited to the relatively small numbers who will starve. Increasingly inadequate diets are, in a less dramatic way, affecting the nutritional status of the masses, condemning millions to a lifetime of illness and suboptimal performance -- and possibly even creating substandard populations.

III. (The Progress)

Discussions of lifeboats and triage give the impression of a steady downhill movement over the past 20 years. In most disadvantaged countries, however, progress has not been insubstantial. Between 1954 and 1973, food supply increased sufficiently that even with 1.3 billion more mouths to feed, there was still 10% more food per plate. In the six years before the recent drop, this growth in low-income countries was especially impressive, the rate of increase of total food production in some years being as great and in some cases greater than the richer countries. For example, with all of India's problems -- and they are considerable -- grain production increased from 72 million tons in 1966 to approximately 108 million
tons five years later. Only two-and-a-half years ago, India had 9 million tons of surplus food and (in its assistance to Bangladesh) was the second largest food aid donor in the world. Even today, after two bad years, the availability of food -- although not as high as in the peak years -- will be 100 calories higher per person than it was in the mid-1960s. India's need for outside food is marginal. A few percent in production, one way or the other, usually makes the difference between a good year and a bad year. The resources needed to eliminate the bad years are not unmanageable in scale.

IV. (The Potential)

The increased production in low-income countries has been achieved with a relatively modest dispersion of the new technologies that can easily triple and quadruple yields. India, for instance, produces half as much food as the United States though it has only 7% less good agricultural soil. One reason is that only 16.7% of drought-prone India's land is irrigated. If the groundwater under the Gangetic Plain, perhaps the greatest reservoir of untapped water in the world, were exploited, every irrigated acre could be planted in high-yielding seed varieties that could increase production as high as 400%. In West Africa, the Senegal River is being harnessed to irrigate nearly 1 million acres.

As to fertilizer, the outlook is bleak for the next two years. But the end of the shortage is in sight. Worldwide expansion in fertilizer production is so great that a number of experts predict surpluses by the end of the decade, even with a 60% increase in usage. This is especially significant for the poorer countries because of the exceptional responsiveness to fertilizer in nutrient-depleted soils. In many farms in developing countries 10 tons of fertilizer would increase food production
by 100 tons; in North America the increased production from the same amount of fertilizer would be 24 tons.

There are also prospects for expanding cultivable land, especially in Central Africa and South America. For example, less than 8% of Brazil's land is cropped and a doubling of current cultivated acreage there, even without new high-yielding seed varieties or other technological innovations, could produce an additional 45 million tons of food. Even heavily populated countries like Indonesia and the Philippines offer good land for food production expansion, provided sufficiently attractive incentives can tempt populations to move from the densely populated major islands to the thinly populated outer islands. Although it is costly to open new lands, USDA experts report that "at least twice as much land is physically suitable to crop production as presently used".

The opportunities offered by the new seed varieties (along with complementary agricultural investments) are great. African and Asian countries produce one-fourth to one-fifth as much grain per acre as Japan, and one-half the countries of the world produce one-fourth as much corn per acre as the United States or one-fifth as much as New Zealand. Rice is a particularly important crop because of its dominance in the part of the world where food and population problems are greatest. And here, too, not only can proper seeds and cultivation methods now multiply yields -- but there appear to be better varieties yet on their way.

Around the world, new institutional underpinnings have recently been established including a system of 8 major international agricultural research institutes (brought together by the World Bank under a Consultative Group on International Agricultural Research) and many agricultural credit agencies at local, national and international levels. A number of new mechanisms also have recently been created or are in the process of being designed to assist the often
neglected small farmer -- with whom much of the future production potential lies.

To fully exploit these potentials new policies will be needed, as well as extraordinarily good organization, efficient administration, and not inconsequential financial resources. The countries in need are not long on any of these assets. Nonetheless, if only a fraction of the potential is exploited, the predictions of the current-day Malthuses could easily be headed off.

V. (The Response)

Setting aside for a moment the moral issue, what then are the responses to those advocating the "lifeboat theory". First, the situation today is not as bleak as is being pictured, i.e., there are many empty seats in the lifeboat -- especially if those of us taking up more than our share of space would move over a bit. Although the situation is serious, the day of being forced to write obituaries for nations is not near. When looked at in their totality, current food needs could easily be met with a modest redistribution of food between countries and within countries. Moreover, the food picture could quickly be reversed if the unusually bad weather of the past two years should end, as it has in the Sahel.

The second answer to the lifeboat theory is -- to build more lifeboats. The view of helpless countries holding out begging bowls for a few kernels of grain is as undesirable as it is negative, and it is the last thing in the minds of both development agencies and low-income nations. (In many countries, there is nothing politically more difficult to swallow and more damaging to the national psyche than food aid.) Interests and efforts are being directed to increasing food production in needy countries. The opportunities clearly exist, for only a small fraction of the known potential of the "new agriculture" has been tapped.
Third, more scientific breakthroughs are possible in research projects already far along to fruition and others offering interesting promise. The "lifeboat theory" assumes a static world. How many of today's technologies could have been predicted a quarter of a century ago? And how often has it been in the face of serious challenge that science has been most prompt and creative in its response?

Fourth, the "lifeboat theory" presumes to be able to measure just how many people the world can hold. Isn't this a judgment open to legitimate doubt? How many among the 1.5 billion people at the beginning of this century would have predicted the world in 1975 could reasonably absorb 4 billion? Nearly 200 years ago Pastor Malthus warned that we were running out of land to produce food; 450 years ago Botero wrote that man's productive powers were inferior to his reproductive powers; and 1750 years ago Tertullian advised "the remedy for nations is to let famine take its course."

Fifth, to take the "lifeboat theory" to its operational conclusion, what ultimately happens to the hungry nations? They do not just disappear; it is not a simple matter of discarding the excess baggage. A conscious lifeboat policy predictably would be accompanied by political and social disruption. It is more than a human eccentricity for man to want to stay alive. "Men will not always die quietly", wrote John Maynard Keynes. So a lifeboat-triage philosophy, instead of solving a problem, may well be creating a larger one.

Finally, there is the commonly heard lifeboat concern that it is inappropriate to send food abroad as long as there are hungry in one's own country. The two problems are of a totally different order of magnitude -- and of kind. In most affluent countries, the domestic problem is largely one of
figuring out how to distribute available food to those in need. Part of this need is met by the governments' food stamp and other aid and subsidy programs, which in the case of the United States amounted last year to $4.5 billion, this being five times the value of all food aid sent to all other countries combined. But clearly there is enough food to meet both needs — it is a myth that aid programs sending food abroad would take food from hungry mounts of one's own community.

VI. (Population)

Unless major inroads can be made on both sides of the food and population equation, successes in agriculture are largely a matter of buying time. Today's 4 billion people could easily expand to 7 billion by the end of the century. If the current excessive breeding persists, the situation may well become desperate; clearly the food situation at some point will be manageable only if the horrific population growth rates in low-income countries (where 86% of the annual increase takes place) come down.

Critics from the lifeboat school have complained that poor countries are not facing up to the problem, avoiding hard decisions necessary for lowering birth rates. Nearly half of the world's population increase takes place in five countries: India, China, Bangladesh, Pakistan, and Indonesia. All have conscious population policies and family planning programs (most of them active), as do a number of smaller countries. But a larger number of countries, many of them limited by religious proscription, still have either token programs or none at all.

Results of family planning programs have to date been disappointing. But perhaps expectations were unrealistic that centuries-old cultural patterns would be altered overnight. Most countries have only in the last half dozen years recognized the population problem. It is too early
to determine how effective their programs will be, and clearly premature to write them off.

Meanwhile, the population field has not been without some progress. China reportedly has lowered its population growth rate to an estimated 1.7% (and still declining), and other countries like Taiwan, Hongkong and Singapore have all dropped well below 2%. Moreover, progress has been made in the recognition that contraceptive availability alone is not the answer.

Evidence is beginning to accumulate, for example, that the best way to lower birth rates is to give people the opportunity to see that their children have a decent chance for survival. (If half the children die before reaching productive years, a family must have 8 children to assure 2 surviving sons.) Ironically, the population growth rate may have to be lowered by providing food to keep children alive and healthy.

Something extraordinary, for instance, seems to be happening in the South Indian state of Kerala, where the birth rate has dropped in 10 years from 37 per thousand to 27 per thousand (the Indian average in 20 years has dropped from 41 to only 37.2). Although Keralans are not better off financially than the Indian norm, they do have a high literacy rate, excellent nutrition, the lowest infant mortality rate in the country, and a life expectancy of 60 years. Indian editor George Verghese of Kerala contends that because of this combination of factors, Kerala parents do not feel the pressure to have more children.

VII. (The Needs)

Although outsiders can help, the food and population problem must be solved primarily by the poor countries themselves. The immediate need is to see that the food that is available quickly clears port and
that an appropriate mechanism is established to get it to the neediest.

Beyond, more emphasis is required for policies and programs on increasing food production (and the necessary price incentives this implies), improving food distribution, and slowing population growth. It has been clearly demonstrated in the Punjab of both India and Pakistan how quickly farmers will respond to profitable opportunities. The adoption of high-yielding varieties of wheat went much faster than any new seeds ever adopted by farmers in the United States, including hybrid corn, the classic example of dramatic agricultural change.

But increased food production is not enough. Nutritional status has largely been a by-product of agricultural and income policies devised for reasons that had virtually nothing to do with the nutrition needs of specific segments of the population. Some countries, such as Colombia, are now beginning to examine the problem through the other end of the telescope: instead of relying on the trickle-down theory -- investment in large plantations or heavy industry to provide employment to provide income to provide food which hopefully will provide nutrition -- they are starting with nutrition need as a base and working their agricultural and other policies from there. In Colombia, this means shifting services to small farmers, who produce most of the basic crops; the farmers will gain both nutritionally and economically. Emphasis also needs to be given to reducing food waste -- estimated in some poor countries to be as high as 40%. In many countries, even a modest improvement could make up for current food deficiencies.

On population, an obvious need is for better health and family planning systems. The organizing and training of staff needs to be improved. More imagination is needed, as is expanding (for couples desiring small families) the number of options -- including broader use of the pill and legal abortion. Clearly,
improvements of management are needed; one senses that not always are the best of local government managers assigned to family planning programs.

For all these priority programs, able human resources must be found. The examples of China, Israel, and Cuba in using standing armies to work on agriculture and other social programs may be worth examining.

All this may require a greater sense of commitment, a shifting of priorities, a redeployment of resources, basic structural alterations including land and tenancy reform and income redistribution. In some instances, fundamental political reform may be a prerequisite.

This is a tall order and one gets the impression that few leaders understand the magnitude and implications of the potential long-range calamity that is unfolding -- and fewer still what needs to be done about it. But without question, under proper circumstances, the opportunity is there.

Though by far the major effort must be taken by the food-short countries, outside assistance will be needed. And to many, this comes down to the question of what they as individuals can do to help. People are wont to seek simple solutions -- and a fair share have been floating around lately, especially those proposing individual self-denial. Unfortunately, such well-meaning gestures will have little impact on the world food situation. Except for direct financial contributions -- a donation to CARE or UNICEF -- independent individual actions are virtually meaningless unless tied to major policies and programs of governments. And the contribution of the individual is to make those policies and programs come about. An organized public upswelling on the food issue can be effective in this era of responsiveness to constituent concerns.
The first and most immediate need is for agriculturally affluent countries to increase food aid. Today, cash-paying customers have an advantage over those desiring credit. Last summer, cash sales were made by a number of countries to Europe, the Soviet Union, and Japan for grain to feed livestock, while requests for sales on dollar credit terms to feed starving people in Bangladesh went unmet. Of the $21.3 billion of U.S. food exported in 1974 (this up from $8 billion 3 years ago), 2.7% or $575 million was sold on repayable dollar loan terms to low-income countries. An additional 1.3% of the U.S. exports was provided for donation programs benefitting approximately 45 million people, mostly children. Through most of the 1960s, twice this number was reached.

The United States has been extremely generous in most of the past 20 years in providing food surpluses to poor countries. However, the $900 million in food aid credit and grants in 1974 was roughly half the amount that was provided through much of the 1960s, and more important, reflected a drop from 16-18 million tons to 4 million tons. The increase to $1.6 billion for this year ($1.3 billion for next year) proposed recently by President Ford is significant, though the actual difference in food transfer, because of price increases, will be from 4 million tons to 5.5 million tons.

A good case can be made that whatever limited food is available should go to those countries in greatest nutritional need. Last year, 70% of concessional U.S. food sales went to the so-called security countries, primarily Vietnam and Cambodia. A recent amendment to the Foreign Assistance authorization bill would require that no more than 30% go to countries not on the UN's "neediest" list.

Also, the question has been raised if food aid actually reaches the hungry. Given the tight supply situation, it would not seem
unreasonable for nations providing food assistance to make aid agreements contingent on whether receiving countries have policies and programs that ensure the food will reach the needy. They could include such mechanisms as fair-price shops, institutional feeding programs, price policies favoring foods consumed by the poor, food stamps or coupons or other forms of consumer subsidies. Food aid tied to programs that provide employment in ways that would lessen need for future aid should also be given special priority. And some have suggested that in allocating limited food aid, special consideration be given to those countries with policies to bring their population growth under control.

Second, and relatedly -- until such time as we are home free -- agriculturally-rich countries should make full productive use of agricultural land and oppose the reimposition of restrictions on land usage. The vagaries of the weather and the unpredictability of demand make quick acreage adjustments impossible. Thus surpluses will occur (and will serve as the basis of a new world food reserve agreed to at the recent World Food Conference), but USDA experts say the annual storage and interest cost of $1 billion necessary to provide a substantial degree of protection is relatively small compared to the additional costs consumers have paid for food because of shortages over the past two years.

Should the United States be forced to carry the burden in feeding the world? Clearly not. Nor is that now the case. Last year less than half of international food aid was supplied by the U.S., most of it in the form of loans to be paid back in dollars. (Nearly all other countries provide their total food aid as grants). Meanwhile, from price increases alone on food sold for cash to low-income countries, the U.S. earned $2 billion, more than double the value of the food aid outflow.
A large part of food aid must come from the United States, however, because close to three-quarters of all cereal grains in the international market are from the U.S., and without taking on a major share, the best intentions of all the others will be of limited impact.

The U.S. contribution to all forms of foreign economic aid in proportion to its gross national product is lower than that of thirteen of the fifteen other countries with foreign aid programs. By this measure, many countries give two to nearly four times as much as the U.S. (Cost in the United States for economic aid is two cents a day per capita, most of which is in terms of repayable loans.) During the current period of economic difficulties, aid declines are noted in several of the traditional donor nations.

So, the third need is for increased appropriations from the more privileged countries for foreign economic aid through national and international agencies -- giving emphasis to the agriculture, nutrition, and population priorities outlined here. The AID legislation before the U.S. Congress, for example, includes a doubling -- to $600 million -- of assistance to improve nutrition and food production in the poor countries. Priorities in aid programs by other donors reflect similar emphasis.

The fourth need is to restore emphasis on agricultural production research, which has declined 7% in recent years. Special attention needs to be directed to the adaptation to local conditions of successful technologies developed elsewhere. Although much is being accomplished, only 11% of all agricultural research investment is now spent in the poor countries, and additional work is hampered by budget constraints. (Funding for all agricultural research is a fraction of 1% of what is being spent on research
for defense.) Similarly, increased funds are needed for health and nutrition research. Budgets, grants and interest have begun to dry up.

Moneys are not as tight on population research, but more qualified people and more work are needed if efficient, safe, long-lasting, culturally-acceptable contraceptives are to be found. Technological breakthroughs here could have impact on the population growth picture in short order. More research and innovative social experiments also are needed to develop workable social security and other approaches that can reduce the dependence of the very poor on large numbers of children. The significance of the population problem would seem to merit at least a fraction of the effort that produced Neil Armstrong's relatively modest step forward for mankind.

Finally, there is need for explicit national food and nutrition policies, taking into account, of course, the relationship of balance of payments objectives and national and international food requirements, especially those of the needy nations. For affluent countries to direct others in establishing national policies and plans when they themselves do not have them seems ill-advised. In a series of hearings last summer, a U.S. Senate Nutrition Committee made a good start on this problem. Among its findings, it noted that no single focus exists anywhere in the government to assess and advocate nutrition policies and that no overall coordinating machinery exists at any level for nutrition planning, program management or research and development. This is not a problem indigenous to the United States. Few countries are further along.

**VIII. (The Costs)**

In relative financial terms, the needs for addressing the food and population problem are not outrageously high; there must be, however,
a quantum jump in resources. If we only keep pace with the immediate needs, families would not have the kind of Keralan incentive for reducing the number of births, and 20 years from now we might well be facing the same dilemma -- only with larger numbers. University of California ecologist Garrett Hardin, the informal captain of the lifeboat crew, suggests that rich nations should refuse to send aid on the grounds that "lives we save today are going to be paid for by worse loss of life and worse misery in the generations that will follow". Not so if there is an extra push. But time is a critical factor. If richer countries do not move quickly, the push becomes all the more difficult.

One obvious way for paying for all this is through redeployment of existing resources -- both in the so-called developed and developing nations. If a small fraction of the estimated $400 billion annually spent on world armaments were redeployed to food, the problem could well be solved. The analogy with defense expenditures is not accidental. A growing food problem if not headed off could well be a greater threat to international security than traditional military dangers. And given modern armaments, the threat would not be restricted to those food-short countries in despair.

Another switch in expenditures might come from reduction of meat consumption. Or a re-emphasis toward greater consumption of grass-fed cattle (75% of North American beef is grain-fed, compared to 45% in 1955). The consequent savings of grain, however, must be directly and officially tied to programs that would provide the freed grain to the nutritionally needy. The impact of a meat consumption cut-back in North America, where 90% of all grain is fed to livestock, would not be insignificant. A successful public clamor for a meatless day a week for instance, could free
enough grain to feed 100 million people. Or viewed another way, the eight pounds of feed-lot grain required to provide one pound of steak would be enough to feed two or three children for a week.

Cut-backs could likewise be made in the use of fertilizer for ornamental purposes. The reaction last year of a number of mechanized countries to fertilizer shortages was the imposition of unofficial bans on fertilizer exports. (For lack of a 100-lb. bag of fertilizer, costing $15, an Indian farmer would lose production of 1,000 lbs. of wheat, which would cost $100 if purchased later.) Reduction by 25% of the fertilizer used for non-crop purposes in North America, for example, could have the effect of meeting more than half the fertilizer shortfall of low-income countries. But again, the cut-back must be directly linked to government foreign assistance programs. With strong public support and appropriate leadership, much could be accomplished through voluntary means; affluent countries did, after all, learn to turn down their thermostats. But consideration might also be given -- and needed -- to legislative fiat.

Taxpayers of no single nation should be expected to carry the major burden (many countries already are committed to a large proportionate role, and other resources now are available for the necessary "over the hump" push -- the most obvious source of new help being the oil-rich nations which are in a position to provide substantial economic aid or to purchase food to provide as food aid), but neither can the citizens of any large affluent society remain indifferent to the problem.
A strange kind of malaise now pervades many who have been leaders in the aid movement in the past. Those who should be concerned and who should be doing something about the food problem are increasingly numb to it. Perhaps their numbness is understandable, given the economic problems, the foreign misadventures that have resulted in an inward-looking, non-entanglement attitude, the disenchantment with the UN system (starting with the titters of many delegates accompanying Taiwan's departure from the General Assembly, to the politicization of Unesco decisions, to the rousing reception for Arafat). Those who want to help, listen for Third World leadership, but often hear only antagonism; they know some aid efforts have not met their promises (a blow to self-esteem as well as political credibility); and they resent helping those who not only fail to show appreciation, but seem to "bite the hand" and even play the role of cheer-leaders every time something goes wrong for their benefactors.*

The callousness is no doubt partly the result of the sheer size and repetition of the misery. People can only see so many pictures of empty-eyed, misshapen child victims of Bangladesh floods and cyclones and tidal waves and typhoons and civil wars before they are turned off. Stunned by all this and beset by a myriad of uncertainties -- including fear of failure in trying -- people are prone to take a pessimistic view of life -- and become attractive potential converts for the new doomsday theologians.

The question, then, is how to revive interest and action -- both in low-income and the richer nations -- to beat this problem. Can the momentum in agricultural development of the late 1960s, for example, be

*Aid is a prickly business. It is difficult to give with grace -- but it is also difficult to receive with grace. There is a Bengali saying: "I don't understand why he doesn't like me: I never lent him a thing in my life."
regenerated? How does one bring about a renewal at a time of high prices, of waning interest in aid and of foreign entanglements?

For too long, excuses have been dredged up to sell foreign aid to legislators on terms it was thought they would buy: economic aid and food aid would help to prevent spread of the "Communist menace"; hardware aid, mostly spent in the donor countries, would bring them business and jobs; food aid would help the farmers who grew the surplus; aid would create future markets; and so on. These arguments are now tired and many largely invalid. Meanwhile, the real point in foreign assistance has skittishly but intentionally been skirted. After all the political and economic arguments are made, what one comes down to is the ethical issue. It demands a moral response.

The legacy of an earlier experience in this lifetime, in which a number of people and some countries stood by and observed the decision and nearly successful eradication of a segment of the human race, continues to affect the conscience of people and nations. It is not likely that society today is prepared to accept an alternative that carries some of the same overtones. A member of the National Security Council was recently quoted as saying "to give food aid to countries just because people are starving is a pretty weak reason". I believe, to the contrary, that most people, if asked to give their primary reason for helping the needy, would say "because it is right".

One often hears that national policies should flow only from self-interest. We somehow have failed to recognize that "doing good for the sake of doing good" is self-interest. To most people, ethical concerns are of value. (Why else the hundreds of dollars paid by millions of families to
belong to churches, to listen to Sunday sermons, to give to United Funds?), and disregard of these concerns in national policy and action poisons the atmosphere of public affairs, as several major countries have lately learned. Even though concepts of compassion and human decency do not neatly lend themselves to cost-benefit analysis, the desire for sound moral values, and the transfer of those values to future generations, is a legitimate rationale for government action. Somehow affluent countries must learn to build that bridge connecting (and thus justifying) this kind of self-interest as a basis for public policy.

X. (Future)

What then does the future hold? Not hundreds of millions of people falling in the streets of sheer starvation. But massive increases in malnutrition in many parts of the world, many more nutrition-related deaths and physical and mental deformity, especially among children. The hour is late for these children, and in the short run the question is not so much "whether malnutrition" but "how much and how serious". The answer depends both on the response of the more privileged populations and on the effectiveness of the needy governments themselves in organizing their resources.

Beyond, whether there will be malnutrition and starvation of a nightmarish scale also falls largely to the leadership and policies of national and international entities -- and, thus, in the final analysis, to the actions of individuals who do have it in their power to move those entities.

With reasonable luck with the weather and an ability to tap at least a portion of the potential in agricultural advances, food production can stay ahead of population growth for some years. But enough energies must
be mobilized now to get over the population growth hump and thus avoid catastrophe in decades beyond. To do so is by no means implausible.

All this is not to take lightly the gravity of the current and projected food situation. The lifeboat dirge cannot be ignored. It seems premature, but craft warnings clearly are called for. Rather, the point is to dispell the growing sense of hopelessness about the problem -- encouraging inertia which itself could become seriously counterproductive. There is no need for this overpowering atmosphere of futility, for this fear of trying. Given the options, there is no choice but to try. Given the facts, adherence to a lifeboat theory is an intellectual cop-out. To the extent there is to be hunger and malnutrition, it will be a direct consequence of maldistribution of resources among and within nations. Enlightened policies and actions could prevent it.

The question in its simplest form is whether one is willing to stand by and watch those nations afflicted with the curse of poverty grow desperate -- because of the inconvenience of doing otherwise.

If there is mass starvation this year -- or in coming years -- it largely will be due to man's lack of interest and unwillingness to respond. It's as simple as that. It would reflect a fundamental and grievous change in the character of man.

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