

Ringling Declaration on World

If we now choose the right road, the poorest countries could become the world's breadbasket

The acute food crisis that gripped the world in 1972-74 has visibly subsided. Harvests have been bountiful for two successive years; this year's production, too, definitely looks good, even though it will not match last year's record crop. World output of wheat, coarse grain, and milled rice for 1977-78 is currently estimated at 1,322.5 million metric tons (mmt). This is only 11 mmt short of the total of 1,333.1 mmt harvested in 1976-77. Fate has been kind at our time of direst need.

Food stocks, badly depleted in the crisis years, have been substantially replenished. In the USA storage bins are overflowing with grain—this has depressed farm prices, triggering agitation among farmers, who are faced with plunging profits. Even in India the problem, for a change, is not how to cope with chronic shortages but how to deal with a large surplus and to store the bulging stocks the Government has acquired from the producers.

But appearances are deceptive. What we are vouchsafed today is no more than a brief respite. The crisis has ebbed only temporarily; it has by no means been exorcised. In fact, it lurks just below the surface and can strike again—and strike hard—in short order.

The Food and Agriculture Organization (FAO) Conference, reviewing the world food situation at its meeting in Rome last December, sounded an unequivocal warning: Despite recent improvements, the situation remains "fragile," and there are "no grounds for complacency." Among the facts it cited to support this conclusion were the following:

- The world cereal reserves have been increased by 60 per cent since 1974. But in that year the world "granary" ran dangerously low; the build-up looks high in percentage terms because it began from an exceedingly low level. Even after the recent increase, stocks amounted to only two to three months' world consumption. A single crop failure, if it occurred extensively, could throw the world back into another major crisis.

- Besides, the longer-term growth in world food production is far from reassuring. True, the average per capita availability of food, when measured on a global basis, has shown some increase since the mid-Fifties. But the margin is much too small for comfort, especially when one takes into account the year-to-year fluctuations in production and highly uneven distribution of the available supplies, both internationally and within indi-

SUDHIR SEN has dealt at length with the problems he discusses here in his recent publications *A Richer Harvest* (1974), *Reaping the Green Revolution* (1976), and *Turning the Tide* (1978).



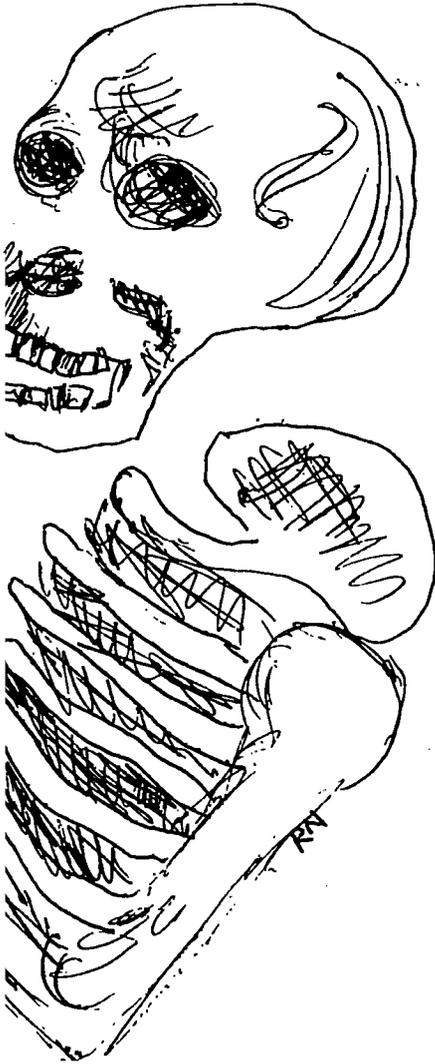
vidual nations. On a longer view, the world is still losing, not winning, the food-population race.

- In the developing countries the situation is even more precarious. True, some of them did achieve 4 per cent annual increase in their food production during 1974-76, but the longer-term growth for the developing countries as a whole during the seven-year period through 1977 fell considerably short of this target. Not only that; the rate was even lower than what they had achieved in the Sixties. And to judge from the current trends, it is likely to decline further in the near future.

- Finally, progress, as was to be expected, had been slowest in Africa and, in general, in the poorest developing regions. The result was a steadily widening food gap between these areas and the rest of the world.

and Limping Action Hunger

by Sudhir Sen



These facts are enough to show how dishearteningly slow has been the progress since the World Food Conference met in Rome in November, 1974. Convened at a time when the horizon was darkened as never before by the prospects of hunger and famine that threatened to engulf large segments of mankind, this august assembly of high-powered leaders climaxed its deliberations with what it exuberantly called "Universal Declaration on the Eradication of Hunger and Malnutrition." Among other things, it solemnly proclaimed:

Every man, woman and child has the inalienable right to be free from hunger and malnutrition in order to develop fully and to maintain their physical and

mental faculties. Society today already possesses sufficient resources, organizational ability and technology and hence the competence to achieve this objective.

And it ended with a clarion call:

Time is short. Urgent and sustained action is vital. The Conference, therefore, calls upon all peoples...to work together to bring about the end of the age-old scourge of hunger.

Today, the dying echo of that call mocks the conscience of mankind. The trauma of the global crisis has largely faded from our memory. And once again we are merrily fiddling with freedom from hunger, which, in a rare moment of compassionate insight, was upheld as an inalienable right of every man, woman, and child.

The action program laid down at the Rome Conference envisaged a world foodgrain reserve system, consisting of 30 million tons of wheat and rice; an emergency reserve of a minimum of 500,000 tons to deal with crisis situations; enlarged food aid amounting to 10 million tons a year; better nutrition to improve the plight of "seriously malnourished people," then estimated at 460 million; and, most important, a sustained increase of food production in the developing countries at the rate of 4 per cent annually.

On the organizational side it established a new world body—the World Food Council—to coordinate activities among various United Nations agencies; also a Committee on World Food Security within FAO to monitor the implementation of the International Undertaking on World Food Security, once such a system came into existence; and an International Fund for Agricultural Development (IFAD), initially with a capital of \$1 billion, to stimulate food production in the developing countries. On a different plane it provided for the creation of a so-called Global Information and Early Warning System on Food and Agriculture.

The targets were strikingly modest, more so when set against the ringing declaration about eradicating of hunger. Yet, so far, even these modest goals have been matched only by limping action. The three-year performance record is anything but encouraging. Bumper crops have resulted in a surplus of 40 to 50 million tons of grain over current world consumption. But mobilizing the surpluses and integrating them into a single system to ensure world food security has so far proved beyond the wits of the international community. In food aid the available quantities are still well below the minimum target of 10 million tons; a desultory approach and

uncertain deliveries further confound the task.

As for the diets of the hungry people, the last FAO Conference admitted that "little or no progress had been made." The improvements in per capita food production, it further added, had "very little effect on the nutritional situation of large numbers of poor people." And it forthrightly underscored another fact that had long been common knowledge among all concerned people, both experts and laymen: that "the high level of stocks in part reflected the inability of both countries and individuals to purchase adequate supplies of food." In other words, the world has a surplus of food only because it has too many people—half a billion, probably more—who cannot buy the barest minimum they need. It is a fictitious surplus that reflects not abundance but deprivation.

Most disturbing of all is the shortfall in meeting even the ultramodest target of food production in the developing countries. For there can be no real food security for them except through boosting their domestic output. The target of 4 per cent annual growth set for the purpose is much too modest, especially when viewed in the context of their abysmally low per-acre productivity, of widespread hunger and malnutrition that continue to ravage their lives, and of the explosive rate of their population growth. Yet, even this timid target has so far not been realized. And the shortfall is sure to widen further, unless reversed by prompt, vigorous, and purposeful effort.

There is, of course, IFAD, which is now cited with a sigh of relief as a tangible evidence of progress. It has received more than \$1 billion in resources contributed by the industrialized nations and the OPEC countries. And it has been established as a specialized agency of the United Nations—with 115 member nations and a Saudi Arabian, Abdelmushin al-Sudeary, as its first president. It became operational on December 13, 1977, and should in due course begin to grant loans to promote agricultural development in the Third World countries.

We should be on our guard not to expect miracles from IFAD. After all, how much development can it achieve with a billion dollars thinly distributed as loans to assist agriculture on three continents? Besides, international agencies, burdened with excessive overheads and inordinately time-consuming, cumbersome procedures, are apt to grind slowly. IFAD is not likely to be an exception. It is a step in the right direction; yet, it smacks of tokenism when measured against the massive effort needed to banish hunger and malnutrition.

So far the World Food Council has held three sessions at the ministerial level, the last of which took place during June 20-24, 1977, at Metro Manila, the Philippines. In an address delivered at its opening President Ferdinand E. Marcos made some trenchant observations that are well worth noting. The world, which only recently was "deep in the throes of a crisis," had staged a "major recovery" in two and a half years. But we would be "seriously deceiving ourselves" if we imagined that we had been delivered from our problems. Despite recent improvements, the global food system remained "as precarious as it was in

1972." The problems "have been temporarily overcome, but they have not receded." The present improved food supply situation "can be wiped out in less than a year." For it is "at best the result of favorable weather, which it is beyond human capacity to fix."

Mr. Marcos underlined the contrast between the growing capacity of mankind to create food resources and the growing human deprivation on the planet. The real dimensions of the problem were well known; they had been bravely set forth at successive conferences. And we know that "the crisis of 1972-74 was merely the tip of the iceberg."

Twenty-five years ago the developing countries were not dependent on food imports, Mr. Marcos reminded the assembled ministers. By 1960, however, they were importing 20 to 30 million tons of grain annually, half of it as food aid. By 1975 the net imports had reached more than 50 million tons a year.

What about the future? There was bound to be a "doubling or tripling" of these cereal deficits by 1985, unless the developing countries' capacity to produce food showed a "fundamental improvement." It would be impossible to meet this huge deficit through food imports and food aid, even if we assume maximum production in the developed regions.

Was President Marcos exaggerating? Not in the least. The following figures show at a glance the disaster that has been in the making since the 1940's in the developing countries and is fast approaching the climactic phase:

EXPORT AND IMPORT OF GRAIN BY REGIONS
(in million metric tons)*

Region	1934-38	1948-52	1960	1966	1973**
North America	+ 5	+23	+39	+59	+91
Latin America	+ 9	+ 1	0	+ 5	- 3
Western Europe	-24	-22	-25	-27	-19
Eastern Europe and USSR	+ 5	not known	0	- 4	-27
Africa	+ 1	0	- 2	- 7	- 5
Asia	+ 2	- 6	-17	-34	-43
Australia and New Zealand	+ 3	+ 3	+ 6	+ 8	+ 6

* Plus sign indicates net exports, minus sign net imports.

** Estimated.

No one can miss the portentous message in these figures. Only three decades ago Asia, Africa, and Latin America were practically self-sufficient in food. Now they are unable to meet their requirements even at an extremely low level of nutrition; and their deficits are growing by leaps and bounds. Asia, in particular, faces the most staggering food deficit.

What, then, brought about such a massive shift in the food supply position of the developing countries? The answer invariably given is population growth. This is true, but certainly it is not the whole truth. The fact is that modern science has been applied systematically to stamp out deadly diseases and to boost longevity, which

set the stage for a population explosion. But we have delayed far too long to apply the same science—chemistry, biology, and genetics in particular—to plants and animals to improve their quality and to boost their yield in order to produce enough food to maintain the fast-growing human family. The biomedical revolution spread its wonders in the developing countries. But the agricultural revolution that should have gone hand in hand with it lagged way behind. It is this glaring onesidedness that has created an intolerable and massive imbalance in many economies, the most prolific source of their troubles, and cries out for prompt rectification. At last we are waking up to this grave default and are getting ready to redress it, as is evident from the stirrings of a green revolution. What we sorely need today is to quicken its pace and to spread it with all deliberate speed.

In recent times North America has been hailed as the breadbasket of the world. And it has been looked upon as the last best hope of the hungry nations. Over a hundred countries have come to depend on it in varying degrees for their essential food supplies. For developing nations such dependence is fraught with grave dangers. If the present trend continues unchecked, they will, as mentioned above, need an estimated 85 million tons of grain imports per year—probably more—only a few years down the road. It would be beyond the capacity even of North America to supply such huge quantities.

Besides, America's cost of grain production has been rising at a fast clip, reflecting the escalating costs of land, labor, fuel, fertilizer, and machinery, as well as of transportation and the whole spectrum of agri-related services. Backed by the Government's support programs, grain prices will not only remain high, but will almost certainly continue on an uptrend, if only because of the inflation—5 to 6 per cent annually—that has been built into the American economy.

The international wheat agreement now under negotiation will, in effect, be an OPEC-like cartel dominated by the USA and Canada. Again, its net effect may very well be to hold up prices at a relatively high level, though much will depend on the outcome of the ongoing debate. How much grain can the poor nations afford to buy from this high-cost, high-priced granary? And how much of it can they expect to haul across the oceans, handle in their low-capacity ports, and distribute internally over their poor transportation systems?

Nor should we forget the fact that whenever supplies fall short of world demand, as is bound to be the case from time to time, the poor nations will be the first to bear the brunt, since they can easily be outbid by the affluent customers—West Europe, Soviet Russia, and Japan. This is what happened during 1972-74—the price of wheat trebled because of acute shortages; the developing nations had to spend \$1.2 billion more on their food imports because of the soaring prices; yet in many instances they had to go without the food they desperately needed. And this is what will inevitably happen in times of future crisis.

North America, despite the widely held view, is not

an unlimited cornucopia. The grain surplus it commands, large as it is, cannot even come close to coping with the mounting world hunger. Moreover, it is fast becoming a breadbasket primarily for rich nations. And so it can be of very limited help to the poverty-stricken developing countries. For them to rely on it heavily would be a grave and perhaps suicidal miscalculation.

We need a radical reappraisal of food aid programs. Charity, as a motivating force in human affairs, has at best a limited relevance. And when it comes to dealings between nations, it tends to be notoriously elusive. In the Fifties and early Sixties food aid enjoyed great popularity. It was often extolled as a shining example of man's humanity to man. In fact, however, it provided a handy outlet for the surplus produced by American farmers aided by generous support programs; and, inevitably, it contained a substantial element of dumping. This is the other side of the coin. The humanist impulse could not have survived long without this solid prop of self-interest.

Subsidized food, dumped year after year in the developing countries, wrought havoc in their fragile economies. It depressed farm prices and thereby badly hurt their farmers; it discouraged domestic production and thus built up their dependence on imports; and in the process it deprived them of a major GNP-booster, along with tens of millions of potential job opportunities. Thus, food aid became the biggest stumbling block to food production in the poor nations and, thereby, to their overall economic development.

How different would have been their history, and how much more resilient their economic destiny, if a fraction of the huge subsidies extended to the American farmers were diverted to stimulate food production within the developing countries! That, indeed, would have been charity of the highest order. For the same reason, perhaps, it would have been too much to expect. In any case, it would have run counter to two proverbial admonitions: Don't look a gift horse in the mouth, and don't ask for the nonexistent "free lunch."

The last food crisis brought some fresh revelations. The long trumpeted food-for-peace program was unabashedly transformed by some key policymakers into one of food-for-diplomacy. The limited supplies, it was argued, should be used only for friendly nations to promote national foreign policy objectives. True, such cold-blooded "realism" did not win much support. Nevertheless, it hoisted a danger signal, even if fleetingly, which it would be unwise for food-deficit nations to ignore.

The crisis also saw the flowering of another noxious brand of thought—the so-called triage or lifeboat ethics. The gospel it preached was startlingly simple: Since North America could not take on itself the burden of feeding all the hungry nations, it was time for it to plan and decide which of them could and should be salvaged, and which, on the other hand, should be treated as terminal cases and therefore written off—or jettisoned, to follow the lifeboat analogy—without wasting scarce resources in a vain attempt to rescue them. Seldom has the world been treated to such a combination of igno-

rance, arrogance, and cynicism as has been displayed by the advocates of these theories. It is hard to tell how many converts they actually won. But they did make a good deal of noise and, at the opportune moment, they will no doubt push their thesis with redoubled vigor. They may not achieve much success, but that is not the point. The very fact that a food crisis could spawn such a rabid band of pseudo-scientists flaunting supreme disdain for human life and values should serve as a perpetual warning to the world's needy nations.

There is, finally, an obdurate reality that should quench all lingering doubts about the perils of depending on remote sources in such a vital matter as a nation's food supply. That reality, overarching and overshadowing everything else, is the conflict of interests. On a national plane, farmers' interests may clash with those of consumers and of the processing and manufacturing industries; and for a long time they were subordinated to the latter almost as a matter of course. The Great Depression marked a watershed in this area. As a part of President Roosevelt's New Deal program extensive measures were taken to build up and support farm incomes. That policy soon became firmly embedded in America and was later emulated by other Western nations.

The importance of a high level of farm incomes to the economy as a whole is now readily recognized. Indeed, it is looked upon as an essential precondition for a high level of jobs and GNP growth. Besides, farmers are better organized, and farm lobbies exercise considerable political clout. This is inevitable in a democracy, since farmers have substantial constituencies and can vote unfriendly representatives out of office. As a result, farmers' interests are now effectively safeguarded, so much so that the problem today is how to prevent them from making undue inroads on other interests, especially on those of the consuming public.

On an international plane, conflicts are resolved more easily and with fewer qualms. The inviolable major premise in this case, even if inarticulated, is that it is the interests of the nation's farmers that must prevail to the utmost possible extent. This means the export markets for farm produce—both food and fiber—should be expanded and safeguarded; it means competition from abroad should be minimized, and, for the same reason, outside sources of production should not be deliberately stimulated. It means that sharp year-to-year swings in prices should be ironed out as far as practicable to assure farmers of good prices. And it means that this last objective will be achieved, if necessary, by restricting domestic production even in a shortage-ridden world afflicted by stark hunger.

What is happening in the USA today, behind the glowing rhetoric of the Carter administration about human rights and world hunger, should be an eye-opener even to those habitually inclined to a complacent attitude. In view of the bumper crops and sagging prices, Washington took legislative action last fall to restrict the wheat acreage in the current year by 20 per cent; and early this year it took similar steps to reduce the feed grain (mainly corn) acreage by 10 per cent. This evoked

criticism in international forums like the World Food Council and also from thoughtful Americans.

For example, the *New York Times*, in an editorial on "The Callousness of the Well Fed" (Nov. 26, 1977), took issue with such a production-curbing policy. Instead, it argued, the USA should maintain unrestricted production and build up adequate grain reserves while the going was good for use in the lean years that were bound to recur in the future. This, it maintained, would be the only sensible policy to pursue at this juncture, since it alone could underwrite world food security, which was still far from assured.

The editorial brought a rejoinder from Bob Bergland, the United States secretary of agriculture and chief architect of farm policy in the Carter administration. In a letter to the editor, captioned "Hunger: What Piling Up More Grain Won't Do," he defended the official policy with arguments both straightforward and revealing. Their implications are so far-reaching that they should be carefully pondered by policymakers in all developing countries. The points made by Mr. Bergland are summarized below, mostly in his own words:

1. "If the answer to feeding hungry people overseas were all-out production on American farms...our problems would indeed be over. We've had all-out, fence-to-fence production of grain in the USA for five years, and the result has not been more food for the hungry people, but rather a disastrous drop in farm income." Today farmers are producing grain below their own cost of production. The net income per farm was \$11,727 in 1973. Last year it was \$7,203.

2. The wheat and the tentative feed grain "set-asides" are actions designed to correct this situation: to bring supply in line with demand and to preserve the economic health of U.S. agriculture.

The 20 per cent acreage set-aside in wheat will result in an 8 to 10 per cent drop in the harvest next year. The 10 per cent feed grain set-aside will result in a 3 to 5 per cent actual drop in production. The percentage drop in both cases will be rather small because farmers will tend to set aside marginal land. For soil conservation reasons, much of it should never have been planted to row crops in the first place.

3. The Food and Agriculture Act of 1977, which authorized the set-asides, also contains very specific provisions for establishing a grain reserve.

The United States now holds 31 per cent of the world's wheat stocks and 38 per cent of its feed grain stocks. By mid-1978 it will, despite the set-asides, hold 38 per cent of the world's wheat stocks and 55 per cent of the feed grains.

4. A food and feed grain reserve of 30 to 35 million metric tons (principally farmer-owned) is being established. And steps are being taken to set up a government-owned international emergency food reserve of up to 6 million metric tons. This should be enough to meet the demands of the commercial buyers and food-aid recipients.

5. The port capacities and internal distribution capacities of food-deficit nations are well-known. Given these constraints, the supplies on hand should be adequate. "Piling up more grain here in the U.S., with subsequent

(Continued on page 35)

(from page 26)

further depression of farmers' income, will not change these port capacities, nor will it feed more hungry people."

6. "About 90 per cent of the world's food is produced in the countries in which it is consumed. The long-term solution to world hunger is not charity from the United States, it is rather building the agriculture of developing nations so that they can feed themselves."

7. "United States agriculture is the most productive in the world. But it will not long remain productive if farmers cannot make a living on a par with others in the economy."

Developing nations should be grateful to Mr. Bergland for this forthright statement. It tells them in plain words how much—or how little—they can expect from the USA; why, in food aid and food production, the U.S. farmer's interests must prevail over everything else; why charity is no answer to the problem of world hunger.

Bergland was charitable enough to use "port capacities and the internal distribution capacities" as the sole argument to support the last point. What he omitted, whether by accident or design, are two other incapacities of the poor nations: They cannot pay a commercial price for the large food imports they would need to feed their hungry masses; and they cannot persuade U.S. taxpayers to bear the burden of subsidized food exports beyond a modest limit.

Mr. Bergland's conclusion that the long-term solution to world hunger lies in "building the agriculture of developing nations so that they can feed themselves" is not only correct but axiomatic. The amazing thing is that both developed and underdeveloped nations have taken a whole generation to discover a truth that ought to have been obvious from the very first day development programs were launched. How long will the world take to discover how best to go about this job of building their agriculture? Will it, once again, waste precious years groping in the dark or beating about the bush in an attempt to discover the obvious?

Mr. Bergland had an apparently reassuring comment to make on this point: "The Administration is now totally reviewing our food aid programs to make them more responsive to development and feeding hungry people." What will come out of this total review, or when, nobody knows. Will it, as in the past, end up by producing the proverbial mouse after prodigious labor? Unless there is a radical change of attitude, the prospects are not promising.

For too long the world has addressed the problem of world hunger the wrong way. And for too long, except in years when it was lulled into complacency by good crops due to good weather, the atmosphere has been filled by shrill, contradictory, and mostly irrelevant cries. Cries such as: America must produce more food to feed the hungry nations. It must stop the inhuman practice of feeding grain to animals when millions of human beings are starving. World hunger is a huge problem, too huge for even America to solve, and so it must decide well in advance which

nations it should try to help and save, and which ones it must simply write off as "unsalvageable." Poor nations must check their runaway population growth before they can ever expect to cope with the mounting problem of hunger. The poor are responsible for the problem they have created through irresponsible procreation, and they must pay the penalty for it. And so on.

Misguided philanthropy, misanthropic cynicism, misconceived priorities, and misbegotten programs—together they have done incalculable damage to the cause of development. They have led to a massive distraction from the most pressing agenda of our times with wasted years and dissipated efforts. Meanwhile, population has surged ahead at the rate of 75 million a year, poverty and hunger have continued to mount, and the problems facing mankind have assumed even more intimidating dimensions.

And here is the ultimate irony: The *comparative advantages* for food production lie decidedly in the tropics and the subtropics, not in the cold, temperate zones; they lie in the sunbelt of the world, not in its frostbelt or snowbelt. The developing countries are richly endowed by nature to produce vastly more food; indeed, the great majority of them have the potential for feeding their hungry masses and yet become significant food-surplus nations. This is inherent in nature's scheme of things. That scheme however, has been perverted by the blind, remorseless march of history in modern times. And this, more than anything else, explains why underdeveloped countries now flounder helplessly in poverty and hunger.

True, the situation they are in today looks desperate, sometimes almost irredeemable. This, however, is only a superficial view of things. If we look deeper, we find solid reasons for confidence about their future. The vast land and water resources they possess, the profuse sunshine that bathes them for most of the year, the abundant supply of low-cost labor—these are tremendous assets, but at present they are largely unused or underused. When they begin to put them to work systematically with modern science and technology, land productivity will begin to soar, bringing the promise of plenty to their shortage-plagued economies. That process has begun only in very recent years; it is bound to gain momentum in the future; and it can of course be greatly accelerated through well-conceived action programs.

The essentials of such programs must no longer be in doubt. Genetically improved seeds, the so-called high-yielding varieties (HYV), are already on hand for the major tropical food crops—wheat, rice, sorgham, millets, also cassava, potato, some pulses. And we can now confidently count on a steady flow of a broad spectrum of new HYVs from the string of international crop research centers established in recent years, spread over different regions of Asia, Africa, and Latin America. This is a *sine qua non* of high-yielding commercial agriculture, but for generations it had suffered from almost total neglect. At long last this grievous default is being made good with a concerted multinational drive.

Other defaults, no less grievous, still persist. The high-yielding seeds, it goes without saying, must be multiplied and distributed to the farmers; they must be properly nourished with water and fertilizers, supplied in right doses and at the right time; the plants must be protected adequately from pests, insects, and other blights and diseases to which they may be vulnerable. All these are much better understood today; they are also receiving greater attention, though they obviously call for more vigorous effort.

What is not yet understood, or continues to be ignored, is the fact that, at this moment, further progress is being impeded by three major roadblocks.

The *first* is a roadblock almost in the literal sense. Nowhere in the world has agriculture prospered without nearby market towns and good farm-to-market roads; and, given these facilities, nowhere has it failed to respond and flourish. Roads and markets are the most powerful levers of progress in rural areas. It is futile to talk of commercial agriculture with rising productivity and accumulating farm surpluses where farmers are denied the outlets to dispose of them at reasonable profits! Yet this crippling omission still characterizes most agri-development programs.

The first and foremost task before the developing nations today is to end the age-old isolation of their villages in which they continue to languish—even at a time when they are bursting at the seams with seething population. They must therefore build, or rebuild, market towns by the thousand; and construct, or reconstruct, all-weather link roads all over the countryside, especially in densely populated areas, to tie the surrounding farms and villages firmly to these townships. Once this is accomplished, these agri-centered market towns will invariably grow into hubs of a widening range of activities. Adam Smith, in short, will suddenly come alive to them with an expanding division of labor and a lively exchange of goods and services.

The *second* roadblock should be no less clear. Agriculture can never make much headway unless farmers are given a direct stake in the land they till; and the most effective form this stake can take, as history has abundantly demonstrated, is ownership. Yet, with very few exceptions, agriculture in the developing countries is crowded with absentee landlords, tenants-at-will, and sharecroppers-at-will. This fact alone is enough to foredoom them to subsistence-level farmings with abysmally low productivity per acre. Serfs and semi-serfs make a poor army to usher in a green revolution and to win the war against hunger. To unlock the amazing yield potential of the miracle seeds the developing countries must first unleash the energies of their farmers. They must liquidate the lingering feudalism, stamp out the still-rampant absentee landlordism, and turn today's exploited tenants and sharecroppers, to the utmost possible extent, into owner-farmers.

Finally, there is the question of finance, which is invariably blown out of all proportion. It has become fashionable to predicate development upon tens of billions of dollars as external aid, even when it is perfectly clear that such recklessly stimulated expectations can never be more than fractionally fulfilled; when, in fact,

the nonoil developing nations are weighed down by an intolerable debt-service burden and a huge oil import bill, which, taken together, more than neutralize the total of all foreign aid. It is cruel to tantalize developing peoples with talk about the illusory billions of dollars. This is to make development a hostage to false hopes.

Meanwhile, there is a vast source of investible wealth that lies untapped right at their doorstep. The huge manpower reserve they command is a tremendous asset; the billions of idle man hours are potentially equivalent to billions of dollars. Can the poor nations activate—or monetize—this wasting asset by harnessing it to productive work—above all, to high-yielding, quick-maturing agri-related projects for which there are unlimited opportunities? This is the kind of operation bootstrap desperately needed today. And this is the about-face they must make instead of waiting, wistfully and wastefully, for an enlarged flow of gifts from outside.

Here, then, are the three most crucial components that have hitherto been missing from virtually all development programs, with crippling effect on their performance. These are the three components that must be built firmly into their future strategy. When this happens, all other things will tend to fall, more or less automatically, in the right places. When this happens, hunger will beat a steady retreat; the food-population race will increasingly lose its terror; the back of chronic poverty will finally be broken. It could then be safely assumed that, at a not too distant future, tropical agriculture will begin to outproduce and outperform temperate-zone agriculture, in terms of both productivity per acre and cost per unit of output.

The following lines from Robert Frost's "The Road Not Taken" have a poignant relevance in the present context:

I shall be telling this truth with a sigh
Somewhere ages and ages hence:
Two roads diverged in a wood, and I—
I took the one less travelled by,
And that has made all the difference.

Today the developing countries stand at a historic fork on the road to their future, and they are lingering undecided about the direction to take. Should they choose the long and hard and uncertain one leading to North America, unaware of the multiple pitfalls that lurk on the way, to arrive there, in exhaustion and exasperation, with the beggar's bowl in hand, and unsure about the charity that will be extended to them? Clearly, that is not the road to take.

The other one is far shorter and surer, leading to their own backyard and putting to work their own resources—land, water, idle man-hours, bountiful sunshine, and benign climate—to produce all the wealth they need to feed their starving people and to build a strong, self-reliant economy. This less traveled road will make all the difference to them. Before long they will discover the simple yet astonishing truth: Despite today's unnatural order of things, it is tropical agriculture that is destined to be the future breadbasket for mankind.