

THE CHALLENGE OF WORLD HUNGER

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Mr. Chairman, Distinguished Delegates....

I am most gratified and honoured to have been asked to address this International Congress of Nutrition. While I am not a nutritionist, I hope I can bring to your deliberations the perspective of someone who has been deeply involved in development for a number of years, and who has come to recognize the centrality of a society's health and nutrition status to its development and growth.

Hunger has never been a stranger to humankind. Even in the affluent nations -- during and immediately after times of war, in periods of economic depression, and as a continuing fact of daily life in their ghettos -- hunger's pernicious presence is felt. Among those living in absolute poverty in the world today, numbering some 600 million in the low-income countries -- hunger is a daily feature of their lives, shaping their strategies of survival at bare subsistence levels.

Thus, any attempt at eradicating hunger and malnutrition must also focus on the problems of the poor -- for it is there that hunger's true roots lie. And the solution of poverty will only come about when we involve the poor themselves by releasing their creative energies and bringing them into the decision-making process that will so deeply affect their future lives. The ultimate alleviation of hunger, therefore, must

be seen as essentially a political and social concern, to be dealt with primarily at the national level by individual countries.

The world has learned how to deal with hunger in its most immediate and extreme manifestation -- famine. The willingness of the global community to rush food relief to areas afflicted by sudden crop failures or other disasters has made it possible to cope with and manage famine relatively effectively. Help has been available in the case of most major famines that have occurred since World War II. When people die of starvation, the media of mass communication have been able to appeal successfully to the moral conscience of people in many countries. Famine relief has been provided across ideological, national, social, ethnic, and religious barriers.

Endemic hunger, however, is a much tougher problem. Its roots are embedded deeply in poverty and social structure -- but being less viable, it is also less dramatic and fails to make an adequate impact on the consciousness of the affluent. It is, however, humanity's greatest single scourge. It impairs the normal physical and mental growth of children, reduces the capacity of adults to mobilize their potential physical energy for productive work, creates severe intellectual, emotional, and spiritual constraints, and reduces resistance to infectious disease. We know too little about the impact of hunger. Estimates of the number of people who are chronically undernourished differ by a factor of two -- from half a billion according to FAO to one billion according to the World Bank. A world in which at least one out of eight people, and possibly one out of four, is always hungry is not a world that we can hand over in good conscience to our descendants. Elimination

of this shameful situation should be our top priority.

The 1980 US Global 2000 Report points out that the rapid growth of world population will continue over the next several decades -- increasing from its present 4 billion to 6.3 billion in the year 2000 -- a growth of more than 50 per cent. The bulk of the increase in world food production during that period will occur in countries that have an already relatively high per capita food consumption. Meanwhile, per capita food consumption in Southeast Asia, the Middle East, and the lesser developed countries of Africa will scarcely improve, or will actually decline below present inadequate levels. At the same time, real prices for food are expected to double.

With the uneven distribution of the world's finite fuel resources -- coal, oil, gas, oil shale, tar sands, and uranium -- with regional water shortages, significant losses in the world's forests, and serious deterioration of agricultural soils worldwide due to erosion, loss of organic matter, desiccation, salinization, alkalination, and water logging, the outlook for the kinds of increases in food production required in the developing countries for adequate nutrition for all is not encouraging. Even though food production is projected to be 90 per cent higher in 2000 than it was in 1970, this will not be sufficient for improvement in the nutritional status of the bulk of the population in many of the developing countries.

The costs of energy-intensive, yield-enhancing inputs -- fertilizers, pesticides and fuel -- have all risen very rapidly throughout the world. Where they are heavily used, increased applications are already bringing diminishing returns. The real costs of producing food are rising rapidly

-- in both industrialized and developing countries -- and in the annual increases in the latter are currently rising at two to three times those of the 1960s and early 1970s. This rising cost of food is bound to affect adversely the food consumption of the poor unless there are compensating national and international policies and programmes.

To meet the food needs of the growing world population, plus the demand generated by the rising affluence of a small part of that population, would require an annual increase in food production of approximately 4 per cent. Yet during the 1970s, the growth of food production in the Third World countries was only 2.7 per cent. As a result, global food stocks are perilously low, and the growing food gap in the low-income regions of the world is only partially filled by costly imports that drain already scarce foreign exchange.

The recent World Food Council report confirms the Global 2000 Report in many respects. It emphasizes that while a number of countries, particularly in Asia, have made important advances toward food self-reliance, over-all trends indicate that there will be a sharp increase in the number of chronically hungry people during the 1980s. The outlook for sub-Sahara Africa is particularly bleak. Their per capita food production has declined over-all since 1960. Drought has been recurrent over large areas of the world, and the increased need for food imports in these areas cannot be fully met because of logistic and acute foreign exchange problems largely due to increased energy cost.

It is clear that for many peoples and nations in the years immediately ahead, an increase in the already chronic food shortages and in malnutrition is certain unless there are new policy initiatives and a related mobilization

of resources. Only 31 of the 85 developing countries for which data are available managed to increase their food production at or above rates of domestic food demand between 1952 and 1972. In fact, in half of those 54 developing countries that failed to keep up with food demand domestic food production fell behind consumption by an average of more than one per cent a year. Correspondingly, the dependence of developing countries on food grain imports, primarily from North America, increased.

The main achievement of the 1974 World Food Conference held in Rome was that, after decades of low priority and relative neglect, governments committed themselves to an increased effort over an extended period to eradicate large-scale hunger and malnutrition. The Conference adopted a strategy to resolve food problems by a series of measures, that included emergency relief for immediate starvation, internationally co-ordinated reserve stocks to mitigate extreme fluctuations in the supply of basic food and grain, and -- in the longer term -- increased food production and improved nutrition in food-deficit countries. However, without much greater effort by all countries, without supportive trade and aid adjustments by the industrialized countries, and without sufficient efforts by the Third World countries themselves, such a commitment has meant little. The vision of the 1974 Conference was that hunger would be substantially eradicated by 1985. But there are more hungry people in the world today than in the mid-1970s.

There is now a much more realistic understanding that the present programmes of international and governmental agencies will not lead to the elimination of hunger and malnutrition even by the year 2000. The food and nutrition performance of the past decade has promising elements,

but over-all it has been grossly inadequate.

One problem with the past approach to food problems has been a tendency to view them primarily as technical ones requiring the application of scientific methods to increase production. The need for accompanying economic and social policy changes at the national level has been persistently underemphasized. For many countries, food production is not the problem -- it is rather inadequate food consumption due to the inability of the poor to acquire sufficient food, whether by producing it, bartering their labour for it, or purchasing it. Measures that improve the purchasing power of the poor lead to the disappearance of the major deficiency diseases. Moreover, food generally becomes available to meet the increased demand when prices are not held artificially low by political interventions of various kinds.

It is essential to recognize that the industrialized countries are not capable of feeding the Third World indefinitely, and that food aid is not in the long-term interests of the developing countries. Nor are non-conventional foods the answer. What will be required first are effective efforts by developing countries to slow population growth concurrently with the expansion of their food production. Even this, however, will not be enough to prevent malnutrition without also improving distribution of income in these countries. Thus, better understanding of the problem of malnutrition inevitably forces us to look with new eyes at the problems of the poor and ways to safeguard their food interests.

The food available to the poor must be more than that required to meet basic needs -- it must be enough for them to achieve their potential for growth and development. To achieve this, we will need to pay

particular attention to the ways in which food and energy are inextricably interlinked. The poor are particularly disadvantaged as the rising costs of energy tend to drive food prices out of the reach of increasing numbers of the poor.

The multidisciplinary effort to understand the nutrition-poverty interrelationship is relatively recent -- but a great deal has been learned in a relatively short time. Nutritionists cannot ignore the universal significance of this relationship. They should strongly support efforts to take it into account in the development of national and international policy.

The food stamp programme in the United States offers an illuminating example of what can be accomplished in improving the nutritional status of the poor by increasing their effective purchasing power. The plan was initiated in 1964 in response to a degree of national shame and aroused national conscience over the problems of malnutrition existing in certain segments of the urban and rural poor. Evaluation studies have indicated that the food stamp programme has made an effective contribution to the virtual disappearance of significant malnutrition in populations where it had once flourished. Clearly, the problem in the United States among the lowest income groups could not have been alleviated by producing further food surpluses, but instead it required measures that would assure improved food consumption.

A different kind of food subsidy scheme in Sri Lanka has demonstrated that similar results can be achieved in a developing country that is impelled by the necessary political will. China has also succeeded in achieving equitable food distribution, and essentially no overt malnutrition,

through measures that assure a relatively efficient and even distribution of food.

In contrast to the relative success of food subsidies for the poor, the direct distribution of food sent from food surplus countries to the low-income countries, for various kinds of feeding programmes, has been surprisingly ineffective in reaching the most needy groups. It has often served as a disincentive to local agricultural production, although it has also helped some countries avert serious hunger problems.

At the recent North-South Round Table on Food, organized by the Society for International Development, a global food stamp plan was proposed. Such a plan, underwritten by all of the industrialized countries, whether or not they produce food surpluses, but also including the OPEC and other developing countries, could provide a nutritional floor for the poorest of the poor at an economically feasible cost. The implementation of such a plan would, of course, provide many challenges. The most important among these would be to ensure that the food stamps do reach clearly defined target groups and are not deflected elsewhere. It should be available to all countries that are prepared to mobilize and organize their own internal resources to that end. However, it should be recognized realistically that administrative and structural bottlenecks in the past have often proved to be among the root causes of some of the most extreme poverty and hunger problems. The industrialized countries could well afford to underwrite a programme, but the political and organizational obstacles must be overcome. Currently, governments of the industrialized world on average devote 0.55 per cent of their gross national product on foreign aid, despite the target of 0.7 per

cent approved by the UN General Assembly for the second development decade. Such a scheme would require expenditures in this order of magnitude.

Another measure that would be helpful is international support for a food reserve or food security arrangement to help ensure the availability of food at reasonable cost for the lowest income countries in times of global shortages and rising prices. As little as 10-12 million tons of wheat, held in exporting countries and those countries with adequate storage facilities and co-ordinated under an international agreement, would probably be sufficient. Sales would be made to eligible low-income countries when international prices rose beyond a predetermined level for a specified period of time. Operating costs of such a reserve could be made quite nominal by adjusting the price spread between purchase and sale, and no new organization would be involved. Both the procurement price and the sale price would need to be revised periodically in accordance with world inflation. Special credit terms would need to be provided from bilateral and multilateral sources for the most vulnerable developing countries.

There is also a need to devise food reserve and security systems that would function on a regional basis in various parts of the Third World, to stimulate and encourage those countries' reliance on each others' resources and not just the granaries of North America and Australia.

These three schemes -- global food stamps, global food reserves, and regional food reserves -- are logical, and deserving of support, but they are not enough. We all recognize that they will be difficult to organize and to implement -- the sheer logistics of their transportation,

procurement and distribution components are mind-boggling. Moreover, they also raise questions of increased Third World dependency on the industrialized world, and the constant temptation to resort to resource diplomacy and use of food as a political weapon.

The heart of the problem really lies at the national level. Hunger and poverty are inextricably interlinked, and malnutrition is patently the disease of the poor. It is the intractable character of poverty in the low-income and densely-populous countries of the Third World that is the single greatest impediment to the eradication of hunger and malnutrition. There are whole regions or pockets within those countries in which absolute poverty has been endemic for generations. In these one finds a markedly shorter life expectancy, a much higher infant mortality rate than the national average, severe malnutrition and, as a result, a large number of people stunted in their physical, psychic, cognitive and social capacities -- thus affecting their ability to respond to and interact creatively with their environment.

It is now widely recognized that earlier development strategies, based on emulation of Western industrialization patterns and an anticipated trickle-down of economic growth, have not responded to the needs of those living in absolute and endemic poverty -- in many cases, the adoption of such strategies has only left the poor farther behind, more marginalized and powerless. It was against the background of the incapacity of these development approaches to reach the poor that the so-called "basic needs" approach to development was designed as a direct attack on poverty.

The basic needs approach undoubtedly has added to the conceptual and operation tools of development. But it too has serious deficiencies.

It has turned out, for example, that the government bureaucracies in many nations are simply unable to reach the very poorest with basic social services, including primary health and nutrition care. Many of the poor work all day and part of the night in very low paying and unproductive work simply to ensure their continued subsistence. They have no time to go to the village health post or to participate in any voluntary type of community activities. Neither can they afford to take the risks involved in any new opportunities, including those offered by government programmes. Often the relevant information about new facilities does not reach the poor.

We really know very little about the dynamics of survival strategies that enable the absolutely poor to survive in some form. We do not know enough about the social structures and the cultures of absolute poverty to enable us to break the pattern of powerlessness, exploitation, and permanent indebtedness. We must find ways to give the poor better access to education, information, and legal and health systems.

We know rather little, for example, about food consumption patterns disaggregated by income groups. This would give us important clues as to which differential price policies would be most likely to maintain and improve the nutrient intake of the poorest 20 per cent in both rural and urban areas in the face of higher costs for their main staple food. For many groups, we have inadequate information on their dietary habits and priorities and the basis for them, knowledge that is essential for appropriate nutrition evaluation or any other nutrition intervention programme. The policy choices that have to be considered require a data base that is still quite inadequate in most developing countries.

A great deal more applied nutrition research and data analysis is required.

There are other crucially important elements. The poor generally lack access to agriculturally productive lands; vast numbers of them are landless, particularly women. What land is owned by the poor is usually too small or too barren to sustain a yield sufficient even for family consumption much less for a surplus for trade purposes. This implies the need for land reform, improved land tenure practices, and the consolidation of fragmented mini-holdings into higher-yielding systems supported by some kind of co-operative organization.

We further need to develop non-agricultural jobs in the rural sector. There are now some 1.2 billion children under the age of 15 in the developing world, most of them in rural areas, who will soon put enormous pressure on the job market as well as on the political systems of these countries. The creation of adequate employment opportunities must be facilitated both through the encouragement of labour-intensive small businesses and factories and through essential large-scale public works projects for the building of local infrastructure. The construction of roads and tertiary and quaternary irrigation canals, the terracing of hills and reforestation should be done in ways that simultaneously speak directly to food and energy needs of small farmers and landless labourers.

In many parts of the Third World, the combination of poverty and overpopulation has already seriously upset the ecological balance between man and nature. In these areas, there is no prospect of supplying food to their growing populations unless erosion and large-scale deterioration of the natural environment are halted. Public works projects for this purpose could both provide additional income to the poor and improve the

carrying capacity of the environment.

The foregoing are some of the ways to address the social and economic roots of poverty. In addition, of course, there are cultural factors to be considered in any rational approach to improving the nutrition standards of the poor -- questions involving dietary habits and customs, or the fact that in many cultures nutritional status, especially of women, simply does not figure within their value structure or perception of needs.

This leads to another factor that we cannot ignore, which has both social and cultural overtones, that is the role of women. One cannot speak about the revitalization and emancipation of the absolutely poor without speaking about women, since they are the chief victims of both rural and urban poverty, and the first to feel the negative effects of mechanization and modernization. Girls are the first to be taken away from school when the family economy deteriorates. Women in many countries have no access, or only very difficult access, to credit. Many of these women are heads of households and are abandoned by their husbands who have left the village in search of work elsewhere.

At the same time, women play a crucial role in determining the rate of acceptable change in their own environment. It is they who, through their role in bringing up their children, or through their selection of status-enhancing activities, integrate or reject new elements in the life of the family and in the configuration of values that help shape it. It is they who make most of the food purchases and prepare most of the food and often then have grown it or gathered it, so their opportunities and chances largely determine the nutritional status of the family. Among the poor it is often the women who are most determined to prevent

transmitting to their children the powerlessness the parents feel and thus encourage an upward mobility drive among children. To the extent that they recognize the importance of better nutrition for their children, they can achieve much improvement even within existing constraints.

We can thus see that it will be many hundreds of millions of individual actors among the globe's poor and hungry -- the women, the powerless, the marginalized -- who will make the ultimate decisions about their future lives and the shape of their future world. The task of governments is to ensure that the poor have access to the land, the social services, and the jobs they must have to manage their own lives and escape from powerlessness. The elimination of poverty, therefore, and the hunger and malnutrition so deeply rooted in it, is essentially a political problem.

This will mean that government bureaucracies will be called upon to change their traditionally paternalistic role to one supportive of rural emancipation, self-reliance, and empowerment. It will also be of crucial importance to review how the prevailing national priorities and production processes affect price relationships between food and non-food items, and in that way affect nutritional access by the poor. One fundamental change that must also be made is a change in the terms of trade between the urban and rural sectors. This is the one problem that almost all governments in developing countries have managed to avoid out of deference to the greater weight of the urban centres in the political equation. Governments will have to begin to gradually build the political constituencies that will enable them to come to grips with this need. The development of sound policies to eliminate hunger and malnutrition

requires also the knowledge that must be provided by nutrition scientists such as yourselves.

The interlinked problems of poverty and malnutrition are now being aggravated by the high costs of energy and the resulting pressure to divert part of the agricultural output for energy production. The increasing use of energy-intensive agricultural practices is both pushing food costs out of the reach of the poor and causing widespread environmental damage. We need to develop agricultural systems that are less energy-intensive and ecologically sustainable and capable of also meeting the food energy needs of the rural areas. Our best hopes here may lie in advances in the field of biotechnology: biological nitrogen fixation, genetic improvement, improvements in photosynthetic efficiency, and the like. But these technological advances will have to be adapted to the interests, needs, and values of small-scale farming in the populous agricultural societies who will use them.

All of this will require, of course, an enormous research effort in which nutrition scientists have a vital role along with those of other disciplines. It also means the setting in train of a vast social learning process involving not only scientists but also farmers and communities. For here too, as in so many other aspects of the poverty-hunger equation, our knowledge base is badly lacking. We can only hope to begin to solve that equation through an interdisciplinary approach that recognizes that hunger and poverty are set in a web of economic, social, cultural, technological and political forces. The nutritionist will need to work closely with the anthropologist, the economist, with the rural sociologist, the political scientist and many others in a collaborative effort at

mutual understanding of the interplay of these many forces. For only within the context of the over-all development effort will it be possible to formulate and implement effectively nutrition and food strategies and to justify their paramount claim on national resources.

The virtues of interdisciplinarity, of course, are easy to preach -- but we all know how difficult they are of true achievement. The difficulty of interdisciplinary work is currently being experienced in various places around the world. Professionals in academia, in the international consulting community, and even in governments, seem to be retreating from the high risk-high gain arena of interdisciplinary work back into a more narrow and conservative single disciplinary-based approach.

Perhaps this is inevitable during difficult economic times when "soft" programmes are the first thing to be cut from the budgets of universities and other organizations -- but it must be resisted as strongly as possible. The nature of the problems confronting the world today clearly defy facile, disciplinary approaches -- yet they are too important and pressing to be placed on the "back burner" until economic circumstances improve. The nutrition community will, in all likelihood, be severely tested during the coming decades in their commitment to addressing nutritional problems in their global complexity and in their willingness to bear up under adverse circumstances in order to approach these problems in holistic fashion.

The United Nations University is committed to interdisciplinary research of this nature, however in addition to the horizontal approach across the range of disciplines, the University is also studying the

vertical interaction problems between policy systems at the local, national, regional, and global level, to improve understanding of how these systems can be integrated. It is further concerned with the global outreach of new knowledge and how it must be used to improve world understanding of problems in the round.

The University has recently broadened its intellectual focus to encompass five broad themes of global significance and urgency. The food-energy-nutrition component of its work is closely linked to all of these themes. The alleviation of hunger and malnutrition is obviously an important consideration in our studies of peace and conflict resolution, the first of these themes. It is also closely related to the state of world economy, to the interplay of environmental forces on hunger and poverty, to the capacity of societies to achieve cultural harmony and, the last of these themes, improvement of the Third World's scientific and technological infrastructures.

There has been a historical tendency on the part of the majority of those in the professional nutritional community to view their responsibility in terms of discovering scientific facts and disseminating these findings broadly. But, just as atomic scientists have had to confront the necessity to act upon the dire potential consequences of their research and development efforts since the end of World War II, so too nutritional scientists must now accept the reality that their involvement must not and cannot end at the laboratory. The hundreds of millions of poor and hungry in the world have become your constituency.

I realize full well, of course, that the notion of advocacy conflicts sharply with some of the most cherished values of the scientific community

-- such as neutrality and objectivity. But it is becoming increasingly apparent in many quarters that nutritionists must consider themselves morally and ethically bound to see to it that the major human consequences of their research findings are accessible to, and considered by, those at the highest levels of national and international decision-making. Food is a human right and, by logical extension, so too is nutritional well-being. All of you represented by the International Union of Nutritional Sciences have the responsibility to see to it that this right is no longer abused and violated.

I realize full well, of course, that the notion of advocacy conflicts sharply with some of the most cherished values of the scientific community. The hundreds of millions of poor and hungry in the world have become your constituency. Involvement must not end at the laboratory. Too nutritional scientists must now accept the reality that their research and development efforts since the end of World War II, so confront the necessity to act upon the dire potential consequences of these findings precisely. But, just as atomic scientists have had to responsibility in terms of disseminating scientific facts and disseminating those in the professional nutritional community to view their. There has been a historical tendency on the part of the majority of and technological infrastructures. The last of these themes, improvement of the Third World's scientific poverty, to the capacity of societies to achieve cultural harmony and world economy, to the interplay of environmental forces on hunger and the first of these themes. It is also closely related to the state of an important consideration in our studies of peace and conflict resolution, these themes. The alleviation of.