

FEEDING A MORE CROWDED, WARMER AND MORE INTERDEPENDENT WORLD: AN ENDURING CHALLENGE FOR THE UNITED NATIONS

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[Ensuring that sufficient food is produced and distributed to the greatly expanded global population of the next century is a daunting and continuous challenge, made more complex by the need to minimise adverse environmental effects. In the absence of a global food crisis, the long-term food production and distribution issues have dropped down the international agenda. The role of the United Nations and its food agencies is not to give aid to developing countries, but to promote consensus among states on the steps that must be taken to deal systematically with the inter-related issues of global food needs, population growth and environmental management. This paper identifies three key steps: (1) further liberalisation of trade in foodstuffs; (2) the development of financial instruments to help meet the additional financial burden on developing countries of intensifying agricultural production in ways which minimise environmental costs; and (3) greater support for research.]

INTRODUCTION

When Thomas Malthus wrote his famous essay two hundred years ago,¹ the world's population was probably about one billion. Today it is approaching six billion. Overwhelmingly, that increase has taken place over the last 50 years. At the same time, human welfare has been enhanced to levels never before attained in human history. This phenomenal achievement has been technologically driven. The application of science and technology to food production in the tropics and sub-tropics, where most of the world's poor people live, was a major element of that achievement and, despite what is sometimes alleged, poor farmers were major beneficiaries of the Green Revolution.

Unfortunately, there remain wide differences in progress as between regions and countries. Africa, in particular, has done poorly over the last two decades. Proportionately, there are now nearly as many hungry people in Africa as in South Asia where about half the world's poor live.

Despite a situation in which global food production is more than sufficient to provide an adequate diet for all, around 800 million people are still unable to produce, or lack the means to purchase or otherwise acquire, sufficient food for active, healthy lives. Progress is being made, however. Death from famine due to natural disaster is a thing of the past. Moreover, according to new data from the Food and Agriculture Organisation (FAO), the absolute number of the food-

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¹ Thomas Malthus, *An Essay on the Principle of Population* (1798).

poor began declining from 976 million in 1975. These sorts of statistics, including estimates of childhood malnutrition, are not very reliable and may over-estimate the numbers of deprived. More accurate statistics, but still necessarily approximate, are the World Bank's which suggest that in 1990 (the most recent estimate), 1.1 billion people were living in developing countries on less than \$1 per day — the Bank's measure of poverty.² By this measure the number of poor, who correlate with the hungry and vice versa, has fallen slightly, but their proportion of the global population has increased.

THE TWIN CHALLENGES

The world's population may double sometime during the next century. For the next 25 years, population will grow by nearly 100 million per year. This creates two daunting challenges. First, we must ensure that food production in developing countries continues to exceed population growth. It needs to exceed population growth because income growth increases demand for food, and for different kinds of food. Second, hunger must be eliminated. All this should be done in ways that minimise the cost to the environment. This paper seeks to give a brief synopsis of the main issues and outlines the limited options available to the international community and the United Nations for influencing the outcome.

The technical food production problem is difficult enough to deal with, but it has been made much more complex by the inclusion of distributional and environmental parameters. This in itself is a positive step. Unfortunately, however, the inclusion of these parameters has led to a division over solutions and, in the absence of any global food crisis, the long-term food production and distribution issue has dropped down the international agenda.

The Distributional Challenge

As regards the elimination of hunger, the polarisation of opinions turns around social measures versus economic development. The former focuses on improving entitlements to food through democratisation and the empowerment of people, particularly women, as well as community development and various forms of targeted social intervention. Access to food is seen as an income distribution rather than a food production issue. The competing view is that since most poor people live in rural areas, the principal means of raising their incomes can only be through increasing agricultural production, which will increase employment both in and out of agriculture. The argument as to why this is so is complex, but is backed up by much field research. Fortunately, on the issue of distribution, a consensus is emerging which recognises the validity of *both* approaches, and the need to combine them if rapid and sustainable progress is to be made in eliminating hunger. Most scientists have long aban-

² Pierre Landell-Mills, 'Trends in Household Poverty and Hunger' (1994) (paper presented at Overcoming Hunger: the 1990s and Beyond Conference, Mahidol University, Thailand, 6-11 November 1994).

done the notion that the only aim of agriculture is to produce more food. Nowadays, 'food production, the alleviation of poverty, the reduction of population growth, and the conservation of the natural environment are recognized as the interdependent and inseparable aims of agricultural research and development'.³

The Production and Environmental Challenge

However, the environment/production debate remains polarised. On the one hand we have publicists like the Ehrlichs: 'Human numbers are on a collision course with massive famines'.⁴ '[I]f humanity fails to act, *nature may end the population explosion for us* — in very unpleasant ways — well before 10 billion is reached'.⁵ According to this view, the pressures to produce more food are seen as disastrous for the biosphere, and massive and coercive programmes of birth control are put forward as the solution. The competing view is that the population will level off of its own accord, and that the availability of food need not be the factor that limits population. Its proponents argue that subject to continued investment in research into increasing crop yields and other factors of production, the improvements in the world food situation over the last 30 years can be expected to continue. They are also able to point to the fact that increased population density can be a positive influence on both environmental conservation and productivity.⁶

A more conventional, but still optimistic, view, which is probably the majority opinion among agricultural scientists and economists, is that past production and price trends will be difficult to maintain but are achievable. Agricultural intensification, or the production of more food on land already under cultivation, is seen as the key. It is considered that agricultural intensification *per se* need not degrade the environment. Rather it is inappropriate or mismanaged agricultural intensification, such as excessive use of water, overgrazing, or insufficient or untimely applications of fertiliser, that can lead to environmental degradation. It is contended that the major environmental danger in agriculture is the increasing extension of farming into fragile lands and the continuation of production techniques no longer appropriate in conditions of high population density. To quote from a leading authority: 'Making it more difficult for poor rural households to gain access to technology needed to intensify agricultural production will have negative rather than positive effects on the environment. Thus the question is not *whether* but *how* to intensify agricultural production'.⁷

³ Derek Tribe, *Doing Well by Doing Good: Agricultural Research: Feeding and Greening the World* (1991) 106-16.

⁴ Anne Ehrlich and Paul Ehrlich, *The Population Explosion* (1990) 17.

⁵ *Ibid* 16 (emphasis in original).

⁶ Michael Mortimore and Mary Tiffen, 'Population and a sustainable environment: The Machakos Story' (1994) 36(8) *Environment* 10.

⁷ Per Pinstrup-Andersen and Rajul Pandya-Lorch, *Alleviating Poverty, Intensifying Agriculture and Effectively Managing Natural Resources* (1994) 1.

This conclusion applies with as much force to food production across the board in developing countries. There appears to be no practical alternative to making the effort to double cereal yields over the next 25 years in the principal existing Asian production areas, which are the source of more than 40 per cent of global cereal production. Maintaining yield growth in these areas has been increasingly difficult and costly. Nevertheless, research efforts are under way to break through present yield potentials, although these efforts need to be increased. To provide the necessary back-up, a much greater investment in 'farmer oriented' extension services will be necessary, as will the pursuit of appropriate pricing and macro-economic policies. Production which does not degrade the resource base will require a shift away from chemical pesticides to integrated pest management and the introduction of systems which make much more efficient use of existing quantities of fertiliser and water.⁸

INTERNATIONAL AGRICULTURAL RESEARCH

The fact that food production in developing countries has more than kept pace with increased population owes much to the network of international agricultural research institutions (CGIAR) established since the Second World War.⁹ The CGIAR continues to be an essential element in the development of new knowledge. Apart from the contribution of its individual scientific institutions, the CGIAR, through its Technical Advisory Committee made up of world class scientists, maintains an overview of the many dimensions of the global food problem. However, there are critics who contend that the CGIAR still tends to be too 'top-down', technology-driven and insensitive to local contexts and to the needs and interests of the rural poor.¹⁰

Nevertheless, the CGIAR is of diminishing importance in what is now the critical research component, namely research specific to differing ecological regions. The success of the Green Revolution in India and China owed at least as much to the work of their own applied research institutes as to that of the international centres. The CGIAR recognises this, and each institution now gives high priority to working with, and helping to strengthen, national research institutions. However, there are real limits to what external aid can do to build a self-sustaining national capacity. This requires a whole infra-structure of scientists steeped in a culture of science and the scientific method, but also sensitive to the social and ecological dimensions of the food production challenge peculiar to their country.

⁸ Mercedesita Agcaoili and Mark Rosegrant, *World Production of Cereals, 1966-70* (1994) 2.

⁹ Arthur Nyle Brady (ed), 'The Consultative Group on International Agricultural Research' (1994) 1 *Encyclopaedia of Agricultural Development* 404-14.

¹⁰ Robert Chambers and Jules Pretty, 'Will The Opportunity Be Seized?' (1994) 14 *International Agricultural Development* 9.

Reaching the Farmer

Even with existing knowledge, there are big gaps between the practices of the best and worst farmers. It is certainly arguable that a higher priority for many developing countries is to recognise that the problem of rural poverty will not be solved without much stronger extension services. These are often the cinderellas of agricultural departments, which in turn rank low in government hierarchies. Moreover, just as we in Australia face problems in getting enough medical practitioners to practice in the bush, agricultural specialists in developing countries too often prefer city life to working in the field.

Successful extension requires a reasonably good transport infra-structure, which is also essential for the marketing of agricultural inputs and production and for improving education and health care. The experience of China is illuminating in this regard. The number of so-called absolute poor who, as in most developing countries, are concentrated in remote marginal rural areas, was reduced from 125 to 80 million in the period 1986 to 1992. According to one Chinese authority, this was done by 'initiating economic development to support self-reliance, such as roads construction, land development, improving agricultural technology on food production, etc'.¹¹ Until 1986 the focus was on targeted assistance to malnourished populations.

POLITICAL PARAMETERS

From a political perspective, agricultural intensification is, I believe, the only realistic and practical option. One thing that we can be sure of is that developing countries will not turn away from the technology-driven model of development. Living in any developed country, especially one so sparsely populated and rich in natural resources as Australia, provides an unrealistic perspective on the concerns of the peoples and governments of developing countries. For the poorest people of developing countries, daily survival is the issue; not 'what shall I eat today?' but 'is there going to be enough to eat?' Those above the poverty line seek a greater share of the material benefits that our wealth brings, knowledge of which is gained from the mass media. The money economy now reaches virtually everywhere, as do radio and television. Politically, governments of developing countries rightfully feel that they must respond to the perceived needs of their populations for a higher material standard of living. The fact that the measures necessary to bring some small increase in incomes today may have possible deleterious effects on the planet sometime in the future is low in the concerns of these governments and is, in any event, seen as the responsibility of the principal global polluters — the rich countries.

Food production and environmental issues, like questions of distribution of income, raise political issues in developing countries which make an 'intensification' policy difficult to implement even when there is technical

¹¹ Chen Chumming, 'Progress in Overcoming Hunger in China 1988-94' (paper presented at the Overcoming Hunger Conference, above n 2).

agreement on the appropriate mix. For example, poor farmers usually lack the political power of city dwellers and well-off farmers who receive a disproportionate share of state expenditure, not only for agriculture but for health, education and everything else. The poorest farmers live in marginal areas, for example those with poor soils or scanty rainfall, and raising their productivity requires a move away from traditional low-input farming practices. This, in turn, may involve disproportionate investment in infrastructure and extension services, in addition to much greater use of fertiliser and other inputs. On the other hand, one reason why environmentally damaging input mismanagement has persisted in the rapidly industrialising countries of East Asia is that richer farmers have disproportionate political influence, and use it to demand subsidies and trade protection.¹²

In impoverished rural areas where human reproduction rates remain high, the more systematically and quickly the factors that cause poor people to want to have large families are addressed, the lower the size of the population will ultimately be. Research has shown that the social and economic factors involved are complex, and that reliance alone on the ready availability of birth control technology and education of women and girls is not sufficient. Parental demand for children, rooted in their cultural and economic circumstances, is a potent factor. Tracing the interrelationships which determine that demand lies outside the scope of this paper. Suffice it to say that there appears to be little doubt that increasing women's productivity at home and improving their earnings in the marketplace would increase their power, especially in the family, and would also raise for men the implicit costs of procreation.¹³ The experience of the World Food Programme's many projects which provide family food packages in support of mother and child health care provides evidence for this. However, raising women's income and productivity is dependent on, among other things, economic growth. In poor rural areas this requires, as already noted, an intensification of food production in ways which minimise any adverse environmental impact.

A necessary condition for meeting future demand for food in developing countries is the direction of an adequate and increasing level of financial and technical resources to rural areas and populations. This will happen only as a result of the right conjunction of political forces in each developing country. In this regard, in recent years there has been an explosion in the number and commitment of genuinely indigenous non-government organisations (NGOs) in developing countries, who are now working for the empowerment of people, including the empowerment of women. This is a critical and heartening development. Please note that it is something quite different from the work of foreign NGOs providing aid in one form or another to the peoples of developing countries, some of which seek also to promote empowerment. Outsiders seeking to change social structures need to intervene with great restraint and sensitivity.

¹² Robert Paarlberg, 'The Politics of Agricultural Resource Abuse' (1994) 36(8) *Environment* 39-40.

¹³ Partha Dasgupta, *An Inquiry Into Well-Being and Destitution* (1993) 365-70.

Even in the seemingly straightforward area of humanitarian support for victims of disasters, I have personally witnessed a build-up of resistance to well-intentioned but clumsy interventions by foreign NGOs.

FOREIGN AID: A MARGINAL FACTOR

Most of the funds for physical, social and institutional infrastructure investment in rural regions will have to come from developing countries themselves. Foreign aid is of diminishing importance in the promotion of economic and social development. Since the end of the Cold War there has been a leap in private financial flows to the Third World, but official aid represents quite a small proportion of total flows and is unlikely to grow. Increasing food production, like all aspects of economic development, is essentially something that can only be brought about by national governments and their peoples. Appropriate public policies, in agriculture as in any other field, are best developed with full regard to the social, cultural and political circumstances of each individual country or region. After 50 years of foreign aid, the intellectual resources exist in virtually all developing countries to do this. What is still lacking in many is adequate support for the institutions required for the articulation of policy and for giving effect to it. However, that too is not due to a lack of knowledge among elites, but to lack of political will which, of course, is due to a great many factors particular to the circumstances of each individual country.

Too often external aid projects fail to have a lasting developmental impact because the political conditions in the recipient are not conducive to success. The will of the donor cannot replace the will of the recipient country, and the will of the recipient is politically driven. This truth is self-evident but too often overlooked. At the risk of making what may seem a too sweeping generalisation, I believe that, after a 50 year effort, most bilateral (ie government-to-government) aid and technical assistance through United Nations' agencies has largely done what it can do to promote *sustainable* economic and social development. This is not, however, to argue that bilateral developmental aid may not help achieve other useful goals, such as political stability or other legitimate goals of foreign policy.

It follows that a low volume of bilateral and United Nations' agency aid is not, in itself, likely to be critical in determining whether the global food production/distribution/environmental challenge is successfully met. However, it remains important to focus a greater share of available official aid on agriculture, considered in its widest sense.

Role of the World Bank

This applies particularly to concessional loans supplied through the World Bank to the poorest countries. The Bank remains far and away the most professional aid donor in terms of the choice, design and monitoring of aid projects, even though its failures in the agricultural, food and poverty areas are

many, as the Bank admits. Nevertheless, Bank concessional lending for physical and social infrastructure development in the poorest rural areas, especially in Africa, could be important, providing that the political conditions in the borrowing country are right.

If the special ecological problems of intensifying production in marginal areas are to be overcome, new multilateral financial instruments may be necessary. One such possibility would be to enlarge the functions of the Global Environment Facility (GEF). This was set up by the World Bank and the United Nations in 1991. It is intended to encourage developing countries, when investing in industrial technology, to do so in ways that minimise adverse effects on the global environment. This is done by underwriting the additional costs of this technology as compared with conventional, and initially cheaper, technologies. The GEF is now well established, having successfully completed its pilot phase.

I would like to see the concept broadened to encompass the additional costs of the investment-mix appropriate for the promotion of intensive agricultural development of the poorest regions, where pressure of population and other factors may be seriously threatening the agricultural resource base. Possibly the International Fund for Agricultural Development (IFAD), together with relevant World Bank units, could provide the technical support for a broadened GEF. IFAD is a United Nations specialised agency, set up 20 years ago for helping poor farmers, which has done some good work. However, the financial assumptions underlying its creation — ie, to capture a share of OPEC money — have never been fully realised and this has meant that its actual disbursements in support of projects are now very small in relation to continuing high overhead costs. It faces an uncertain future.

THE UNITED NATIONS' FOOD AGENCIES

IFAD is one of four United Nations' agencies concerned with agriculture and food. The United Nations is not a single organisation but a family of semi-autonomous and essentially independent agencies linked very loosely and known as the United Nations system. Theoretically, the World Bank and IMF are part of the family, but the links are so tenuous that, when reference is made to the United Nations, these agencies are usually not included. The United Nations Secretary-General presides over, but is in no sense the executive head of, the system. The United Nations proper, which he or she heads, is itself a mix of bodies, some of which are largely autonomous with their own executive boards of government representatives. Two of the food agencies come into this category, namely the World Food Programme (WFP) and the World Food Council (WFC). The latter is now effectively defunct, though it still incurs administrative costs. It was set up, like IFAD, by the 1974 World Food Conference to provide a continuing overview of the global food situation by a ministerial level body in order to avoid a repetition of the global food crisis of the 1970s. The premier body, the United Nations Food and Agriculture Organisation (FAO), was seen as having failed but, as is almost always the case in the

history of the UN system, instead of reforming the offending agency or even dissolving it, a new agency was created. Governments later complained of the proliferation of food agencies and their poor coordination when it was, in fact, they who bore the responsibility for this state of affairs.

There are, then, in practice now only two UN agencies likely to play a long-term role in dealing with the twin global food challenges. The WFP performs two functions, one of which is certain to remain of importance far into the indefinite future: the mobilisation and delivery of a large part of the food that sustains the victims of natural and unnatural disasters. Independent evaluations invariably conclude that the WFP does this task well. Unfortunately, the media only focusses on the sensational, and success is rarely sensational. An example of one of these successes was the prevention of the emergence of famine following Southern Africa's worst drought in the early 1990s. Originally, WFP's main function was to use food aid as a constituent of investment projects to create human or physical capital, such as food-for-work projects which terrace hillsides and plant trees in Ethiopia. While scope remains for the continuing use of food in support of development for selected low income food deficit countries, thus helping to meet the distributional challenge, it is likely that resources available to WFP for this use will continue to decline.

The Food and Agriculture Organisation

Given its long history, prestigious name, and the size of the technical and financial resources it commands, FAO could be expected to be the key international institution for grappling with global food issues. However, that is not the case today, nor has it ever been. From FAO's inception, the major powers would not permit it to act in relation to the critical issues of commodity stocks, prices and trade.¹⁴ Thus FAO played a negligible role in relation to the agricultural liberalisation measures agreed to in the recently concluded GATT Uruguay Round.

I have already described the critical role played by the CGIAR institutes in international agricultural research. These institutions are not part of the United Nations or FAO. This reflects the fact that the donor governments and foundations that established and continue to sustain the CGIAR saw FAO as a political organisation whose systems of management and governance were inappropriate for scientific research.

As already mentioned, dissatisfaction with FAO had reached such a level in the 1970s that two new United Nations' agencies were created, namely the World Food Council and the International Fund for Agricultural Development. The functions of a third (WFP) were also enlarged. Since then, donor dissatisfaction with FAO's performance has not greatly diminished.

Space does not allow for a full diagnosis of where FAO went wrong. However, the essence of its failure has been to make the provision of technical assistance

¹⁴ Ross Talbot, *The Four World Food Agencies in Rome* (1990) 15.

to developing countries the core of its work. While the relevance and quality of assistance provided in recent years has been widely criticised,¹⁵ that is not my main concern. In FAO, each country has one vote and the Director General is elected by the members. Especially when provided independently of major investment projects, it is very easy for technical assistance to be designed to bring substantial personal benefits to politicians and officials of the recipient government. United Nations' agencies are political bodies by definition, but an undue focus on technical assistance has led to an undesirable and unintended politicising, by which the work of some became badly skewed in order to further the personal goals of their elected heads. FAO was notorious in this regard.

FAO has three other functions which, at its establishment, were regarded as its core work: (1) to collect and disseminate information; (2) to do policy analysis; and (3) to be a forum for intergovernmental discussion. Its work in relation to the first is important, in some respects vital, but is of uneven quality. It should be a principal focus of the Secretariat's work. An example is the ongoing United Nations conference to develop a treaty governing quotas for the fishing of species that roam across national and international waters. The data collated by FAO is an indispensable foundation for the conference's work.

As a political body, FAO tends to do research and analysis poorly, and here too the interests of the institution as institution and the personal goals of its head have sometimes influenced the quality of its work. Moreover, there are other institutions doing better work. In any event, the main burden must fall on the developing countries themselves.

FAO has fallen well short of its potential as an agency for promoting the emergence of intergovernmental consensus, again because its Director General has identified his interests as lying with the developing countries and has been unwilling to give disinterested leadership on key issues. The result is that writers like Susan George put much of the blame on FAO for what they see as the massive failure of the international community to abolish hunger.

Governments, of both developing and developed countries, bear ultimate responsibility for this unhappy state of affairs, but show no real willingness to come to grips with fundamental reform. For meeting the global food challenge this is perhaps less serious than might be assumed. Indeed, the marginal importance of FAO is perhaps the main reason why its serious reform is not attempted.

From my analysis, it should now be clear that actual options open to the international community, as distinct from individual states, for meeting the twin challenges are not many. Moreover the United Nations' role, with one important exception which I shall discuss, is not in fact great.

¹⁵ Nordic UN Project, *The United Nations in Development: Reform Issues in the Economic and Social Fields* (1991).

TRADE LIBERALISATION

The most important single step is to continue the progress made in the recently concluded Uruguay round of the GATT for the liberalisation of trade, in particular trade in agricultural products. Here the potential benefits for most developing countries remain greater than foreign aid could ever bring. The new International Trade Organisation, which has subsumed the GATT, is not yet linked with the United Nations system.

Trade reform is, potentially, another important means for ensuring that developed countries can help meet the anticipated future food import needs of the developing countries in ways which lessen overall environmental costs. The desirable phasing-out of production and export subsidies in temperate countries does not mean that these same countries will not need to provide a substantial part of the future commercial food imports of the developing countries. Population and other projections suggest that an additional three billion urban dwellers in developing countries will have to be fed by 2025. It will be difficult for their food needs to be met from national production alone. Temperate regions appear to have certain production advantages as compared with the tropics, and increased food exports from developed countries will probably be essential.¹⁶ Indeed, the faster the rate of economic growth, the greater the demand for imported food will be. The growth of incomes in developing countries has led to increased trade in foodstuffs which has benefited Australia's primary industries. In my view the most helpful and practical action that Australia can take in order to play a constructive role in relation to the long-term food supply challenge is to expand research, which will lead to greater environmentally sustainable food production in this country while, of course, maintaining our efforts to liberalise trade.

In order that global production and trade in foodstuffs is fair and the overall environmental cost is kept as small as possible, it is essential that the environmental principles we seek to apply in the search for the appropriate technologies for intensifying food production in developing countries be applied also in industrialised countries. For example, production inputs like irrigation water are rarely priced at full cost. This seems to me to be an important area of future work for FAO, with a view to clarifying the principles that should underlie further international agreements, the details of which might be negotiated elsewhere over time.

THE KEY POLITICAL ROLE OF THE UNITED NATIONS

I have already referred to the attempt of the United Nations to produce a treaty on fishing quotas. As the only political body with universal membership in an increasingly interdependent world, the United Nations system's most important function is to prepare, patiently and painstakingly, the ground for

¹⁶ Alex McCalla, *Agriculture and Food Needs to 2025: Why we should be concerned* (1994) 18.

concerted international action through the negotiation of binding treaties. The clash of state interests arising in relation to national economic development and environmental change (of which increased food production in most countries is an essential component) can only be resolved by building political consensus patiently and painstakingly over time.

Special interest political action groups have come to distort public policy-making in democracies, and something of the same thing may be happening internationally. The policy interrelationships between achieving a sufficiency of food, population growth and preservation of the biosphere are highly complex. There are no single-factor explanations or solutions. The United Nations General Assembly and its Economic and Social Council (ECOSOC) should be the venues for integrated consideration of such issues over time, with a view to the articulation of appropriate courses of action open to the international community. However, they continue to fail in this regard, and in my view are doomed to fail. Global single-issue conferences have their place and can be useful instruments for bringing issues of global concern onto the agenda of national governments. But too many such conferences debase the currency of, and to some extent focus attention on, aspects of problems that may, in fact, not be critical, and thereby even act as a set-back to effective national action. Moreover, governments see some of these conferences as charades which lead nowhere but, through much speechifying and hortatory declarations, give the appearance that something is being done.

To avoid losing direction in relation to absolutely critical long-term cross-cutting global issues such as the food production/population growth/environment nexus, it is becoming essential to construct a new global and representative economic and social overview body to meet annually at the head-of-government level. To be effective, however, such a global steering committee would have to be very small and provide permanent places for the major industrialised and developing countries, possibly along lines suggested for a reformed Security Council by the recent Commission on Global Governance.

CONCLUSION

During the next century, the world will inevitably become more crowded, warmer and interdependent. In that environment, a major challenge is to produce and distribute sufficient food to eliminate hunger and improve nutrition. Ways must be found to do so which do not degrade permanently the natural resource base and which can be welcomed by farmers. In effect, the earth's carrying capacity must be increased again. This can be achieved through an expansion of knowledge. There is no practical or political alternative. Most of the responsibility lies with each individual country. The international community can assist in limited ways through the United Nations and other international institutions. Among the principal steps are the following: (1) further liberalisation of international trade in foodstuffs; (2) the development of financial instruments to help meet the *additional* financial burden on develop-

ing countries of intensifying agricultural production in ways which minimise environmental costs; and (3) greater support for research.

As a political body, the primary function of the United Nations should not be to give aid. Instead, it should seek, over time, to promote consensus among nations on the steps which must be taken by them, individually and collectively, to deal rationally with the interrelated issues of meeting global food needs, population growth and environmental management. This is a tall order. I have no doubt it can be done. But an exceptional level of political vision, leadership and will is required.