

FOOD SECURITY AND GLOBAL STRUCTURES

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Introduction

IN MY CONTRIBUTION ON GLOBAL FOOD structures I shall endeavour to place the question of food security in the context of the interrelationships that exist between the natural resource base, demographic trends, the dynamics of economic growth, and patterns of production and consumption. I shall argue that food security at any level – be it household, national, regional or global level – is a problem primarily of distribution and hence of justice.

Since charity has not been enough to ensure food security I will ask how we can try to deal from a view-point of Christian spirituality with the challenge of confronting unjust structures that are so complex and seemingly autonomous that no one institution holds the key to their change. The article will end with some concrete proposals for action.

Current trends on the global food scene

With nearly 500 kilogrammes per head of cereals and root crops, the world produced more food per head of population in 1985 than ever before in human history.¹ And yet, in the same year of 1985 more than 730 million people did not eat enough to lead fully productive working lives. According to the most recent *Report on the world social situation*, published by the United Nations in 1993, the World Food Council estimated that in 1990 there were 550 million hungry people in the world. The number of hungry people approaches 1 billion if account is taken of the people vulnerable to periods of hunger each year. Hunger and starvation leave millions of people in developing countries with debilitating problems of undernutrition (lack of enough food energy for an active and productive life), malnutrition (inadequate or inappropriate intake of any nutrient) and micronutrient deficiencies, especially of iron, iodine and vitamin A.²

Despite the grimness of these figures it can be argued that much has been achieved in agriculture and connected technologies to feed the growing populations. Between 1950 and 1985 cereal production outstripped population growth, increasing from around 700 million tons to over 1,800 million tons. As the table following demonstrates, regional differences in performance have been large:

<i>Region</i>	Per capita		Per capita		Per hectare	
	Food production		Gross cropped		Fertilizer use	
	(1961-64=100)		area (hectares)		(kilogrammes)	
	<i>1961-64</i>	<i>1981-84</i>	<i>1964</i>	<i>1984</i>	<i>1964</i>	<i>1984</i>
World	100	112	0.44	0.31	29.3	85.3
North America	100	121	1.05	0.90	47.3	93.2
Western Europe	100	131	0.31	0.25	124.4	224.3
East. Europe + SU	100	128	0.84	0.71	30.4	122.1
Africa	100	88	0.74	0.35	1.8	9.7
Near East	100	107	0.53	0.35	6.9	53.6
Far East*	100	116	0.30	0.20	6.4	45.8
Latin America	100	108	0.49	0.45	11.6	32.4
CPEs of Asia**	100	135	0.17	0.10	15.8	170.3

*an FAO grouping that covers South and South East Asia excluding the centrally planned economies

**an FAO grouping of centrally planned economies of Asia (China, Kampuchea, North Korea, Mongolia, Vietnam)³

This unprecedented growth in food production has been achieved partly by an extension of the production base (larger cropped areas, more livestock, more fishing vessels), but primarily by a substantial rise in productivity.⁴ The rise in productivity has been uneven, and the success of agricultural policies varies greatly from region to region.

In 1987 the World Commission on Environment and Development gave the following regional characterizations:⁵

Africa

- a drop in per capita food output of about 1 per cent a year since the beginning of the 1970s
- a focus on cash-crops and a growing dependence on imported food, fostered by pricing policies and foreign exchange compulsions
- major gaps in infrastructure for research, extension, input supply and marketing
- degradation of the agricultural resource base due to desertification, droughts and other processes
- large untapped potential of arable land, irrigation and fertilizer use;

West Asia and North Africa

- improvements in productivity due to better irrigation, the cultivation of high-yielding varieties, and higher fertilizer use
- limited arable land and considerable amounts of desert, making food self-sufficiency a challenge
- a need for controlled irrigation to cope with dry conditions;

South and East Asia

- increased production and productivity, with some countries registering grain surpluses
- rapid growth in fertilizer use in some countries and extensive development of irrigation
- government commitments to be self-reliant in food, leading to national research centres, development of high-yielding seeds, and the fostering of location-specific technologies
- little unused land, and extensive, unabated deforestation
- growing numbers of rural landless;

Latin America

- declining food imports since 1980, as food production kept pace with population growth over the last decade
- government support in the form of research centres to develop high-yielding seeds and other technologies
- inequitable distribution of land
- deforestation and degradation of the agricultural resource base, fuelled partly by foreign trade and debt crisis
- a huge land resource and high productivity potential;

North America and Western Europe

- North America is the world's leading source of surplus food grain
- subsidies for production are ecologically and economically expensive
- depressing effect of surpluses on world markets and consequent impact on developing countries
- a resource base increasingly degraded through erosion, acidification, and water contamination
- in North America some scope for future agricultural expansion in frontier areas that can be intensively farmed only at high cost;

Eastern Europe and the Soviet Union

- food deficits met through imports, with the Soviet Union being the world's largest grain importer
- increased government investment in agriculture accompanied by less controlled farm distribution and organization to meet desires for food self-reliance, leading to production increases in meat and root crops
- pressures on agricultural resources through soil erosion, acidification, salinization, alkalization, and water contamination.

Since the mid 1980s the pace of increases in global agricultural production has slowed considerably. Instead of the roughly 3 per cent annual increases in grain output of the 1950–84 years, overall production rose only 1 per cent annually between 1984 and 1989. Global production of some crops seems to have peaked in 1984 and to have declined since then because of overuse of fertilizers, attacks by new

diseases, the deterioration of soil quality and the fact that there was less suitable land available for further planting. The yields of some crops, in particular rice, also seem to have levelled out now.

Paul Kennedy, in his book *Preparing for the 21st century*, warns that we may be at the beginning of an ominous long-term trend in which population grows faster than food production.⁶

Kennedy points out that while there is not enough food produced in developing countries to nourish fast-growing populations, in the developed countries massive protectionist subsidies have led to 'butter mountains', 'wine lakes', silos bursting with surplus grain and farmers idling millions of hectares of cropland. This additional capacity, however, is still not likely to solve the problem, which is how poorer nations will *pay* for the food they have to import. Kennedy writes:

Because of reduced stocks, world wheat and rice prices have risen considerably since 1986–87, while developing world currencies have fallen in value. Since northern-hemisphere farmers won't grow crops without compensation, an international mechanism would be required to transfer the crops to those nations in a sustained way.⁷

According to the *Report on the world social situation*⁸ global food aid relief activities increased dramatically in the early 1990s. The volume of global food aid deliveries rose slightly in 1991, to 14.3 million tons, with more than 70 per cent of food aid going to sub-Saharan Africa.

Food aid, however, is not the solution to the problem of food-security. Kennedy states:

While a lot of food aid is donated at present, much more is needed to meet the doubling and trebling of African and Asian populations. But this does not solve the larger problem: an increase in food aid merely increases the dependency of poorer peoples upon their richer cousins, whereas a failure to supply such aid could intensify migration out of food-deficit countries.⁹

And the *Report on the world social situation* stresses that:

the longer-term solution to the problems of hunger and famine lies in attacking their root causes: poverty, highly unequal distributions of income, and unemployment. Increasing agricultural productivity is a part of the solution.¹⁰

Much attention has been given of late to biotechnology in the hope that it could lead to the massive gains in productivity that will be

needed to narrow the gap between agricultural production and growing populations. Genetic engineers believe that in months or years they might be able to achieve by genetic manipulation improvements of yields that would take decades using conventional plant-breeding techniques.¹¹

It bears noting, however, that biotechnology will produce winners and losers, as all earlier technology-driven revolutions have done. Genetic manipulation is already raising concerns about health and environmental issues. And the potential economic impacts of biotechnology are critically important, both for farming in general and for North–South relations. How will the achievements of biotechnology impact on rich countries which suffer from overproduction and on poor countries which suffer from too little production? What effect will actions of large biotech corporations have on the fate of traditional small farmers in the North and in the South respectively? Who will own the new technologies – and if they are owned, as is likely, by large profit-driven corporations, how will the poor be able to benefit from them? Paul Kennedy points out that:

even if farmers in developing countries were able to afford the newer methods of biotech farming, they would become dependent – like many of their equivalents in the developed world – upon Western corporations for the necessary hormones, seeds, fertilizers, and herbicides.¹²

He concludes:

Over the long term, then, the biotech revolution potentially implies a significant relocation of agricultural production (or its substitutes) out of the developing world, worsening its trading position, indebtedness, and general dependence upon richer countries. Moreover, even if developing countries overcame all the obstacles (lack of laboratories, scientists, supply systems, patented information) and were able to develop their own in vitro production, millions of agricultural jobs would be at risk, with mass redundancies provoking a peasant backlash.

The nexus of resource base, population, economic growth and consumption patterns

The trends in agriculture that I have briefly described so far clearly point to the crucial relationship between population growth and agricultural production. But the concern for food security also touches on the question of the resource base and of the stress humans put on it

through current forms of resource-intensive industrial production and through profligate consumption.

Researchers now caution that there may be limits to the earth's ability to yield more and more. According to Sandra Postel, cropland is scarcely expanding any more, and a good portion of existing agricultural land is losing fertility. Grasslands have been overgrazed and fisheries overharvested. Water bodies have suffered extensive depletion and pollution, severely restricting future food production and urban expansion. And natural forests – which help stabilize the climate, moderate water supplies and harbour a majority of the planet's biodiversity – continue to recede.¹³

While it seems that opportunities to expand our use of certain essential resources – such as cropland, rangeland, fisheries, water and forests – are severely limited, global population continues to grow at a very steep rate. The UN medium population projection now shows the world population reaching 7.5 billion by 2015 and 9.8 billion in 2050.¹⁴

In current discussions on issues of demographic trends and sustainable development the term 'carrying capacity' is often used by biologists. Carrying capacity is understood as the largest number of any given species that a habitat can support indefinitely. With regard to human population some would argue that as a result of our population size, consumption patterns and technological choices we have already now surpassed the planet's carrying capacity.¹⁵ While I would not myself like to pronounce on any definite limit to the carrying capacity of the earth, it is clear that dense populations place additional burdens on the environment and the natural resource base. This is true particularly in marginal ecosystems.

The problem of the numbers is compounded by the fact that the highest population growth occurs in the poorest areas. Poverty, in its overriding concern for meeting the short-term needs of survival, does not allow for the luxury of long-term considerations of sustainability. Extreme poverty has been demonstrated to place high burdens on the environment.

It would seem important in this context to take seriously the recommendations of the International Conference on Population and Development (Cairo 1994) which advocate an integrated approach in population policies. This integrated approach combines measures to combat poverty, particularly in primary education, basic health care and enhancement of the status of women. For women this includes the availability of a range of safe and acceptable means for family planning

so that those many women in developing countries who have the desire to limit the size of their families can actually do so.¹⁶

Assuming the world's population grows up to slightly over 7 billion in 2010 – which is a highly likely scenario – scientists project that the amount of cropland per person would decline by 21 per cent, rangeland would drop 22 per cent in per capita terms, and the total wild fish catch would decrease by 10 per cent in per capita terms.¹⁷ Thus, unless we enhance the global distribution of food, the prospects of better feeding the billion people threatened by hunger do not look too rosy, even if one takes into account that new agricultural technologies may yet help to improve per unit yields dramatically.

As we have now placed the question of food security in the context of demographic issues, it is worth underlining the point which the World Commission on Environment and Development made very forcefully:¹⁸ that the agricultural resources and the technology needed to feed growing populations are available. Agriculture does not lack resources; it lacks policies to ensure that the food is produced where it is needed and in a manner that sustains the livelihoods of the rural poor.

The World Commission goes on to formulate the central challenge:

Global food security depends not only on raising global production, but on reducing distortions in the structure of the world food market and on shifting the focus of food production to food-deficit countries, regions, and households . . . Global food security also depends on ensuring that all people, even the poorest of the poor, can get food. Whilst on the world scale this challenge requires a reappraisal of global food distribution, the task weighs more immediately and heavily on national governments. Inequitable distribution of production assets, unemployment, and underemployment are at the heart of the problem of hunger in many countries.¹⁹

If we want to use more of the world's resources to feed the hungry of the earth, two other driving forces that have an impact on the natural resource base have to be taken into consideration: economic growth and the patterns of consumption and production in industrialized countries.

Economic growth has so far tended to be resource-intensive. In order to minimize the negative impact of continued economic growth on the ecological endowment, we will have to develop forms of economic prosperity which are far less resource-intensive and which use technologies that meet our needs in a sustainable way and without harming the earth. Serious work has gone into the analysis of the potential for

gains in energy and resource efficiency over the last years. And many experts believe that from four- to tenfold increases in efficiency are technically feasible.²⁰

The action programme adopted at the Conference on Environment and Development (UNCED) in Rio de Janeiro in 1992, known as Agenda 21, underscores the disproportionate burden that industrialized countries place on the environment through their patterns of consumption and production. According to Agenda 21, measures to be undertaken at the international level for the protection and enhancement of the environment must take fully into account the current imbalances in the global patterns of consumption and production. Special attention should be paid to the demand for natural resources generated by unsustainable consumption, and to the efficient use of those resources consistent with the goal of minimizing depletion and reducing pollution. Changing consumption patterns, Agenda 21 affirms, will require a multi-pronged strategy focusing on demand, meeting the basic needs of the poor, and reducing wastage and the use of finite resources in the production process.²¹

The following table gives a quick impression of the tremendous differences that existed in terms of per capita grain consumption worldwide in 1990:²²

<i>Country</i>	<i>Grain consumption per person (kilograms)</i>
Canada	974
United States	860
Soviet Union	843
Australia	503
France	465
Turkey	419
Mexico	309
Japan	297
China	292
Brazil	277
India	186
Bangladesh	176
Kenya	145
Tanzania	145
Haiti	100
World average	323

Similar disparities exist in other areas. The Human Development Report 1996 gives stark figures, e.g. on international income distribution: of the \$23 trillion of global GDP in 1993, \$18 trillion is in the industrial countries – only \$5 trillion goes to the developing countries, even though they have nearly 80 per cent of the world's population. Between 1960 and 1991 the share of the richest 20 per cent rose from 70 per cent of global income to 85 per cent – while that of the poorest 20 per cent declined from 2.3 per cent to 1.4 per cent. The Human Development Report underlines that, whether international or national, increasing income inequality is a major constraint to sustaining both economic growth and human development. Intragenerational equity is seen to be as important as intergenerational equity.²³

International co-operation

The elimination of hunger and malnutrition and the achievement of food security have long been important objectives in international co-operation. The Development Assistance Committee of the Organization for Economic Co-operation and Development (OECD) – which comprises the world's donor nations – recognized improved food security and adequate nutrition levels as elementary development co-operation objectives.²⁴

The World Food Council, at its session in Cairo in May 1989, focused on the elimination of starvation, a tangible reduction in chronic hunger, a substantial reduction in malnutrition and the elimination of major nutritional deficiency diseases.²⁵

The International Development Strategy for the Fourth United Nations Development Decade, adopted by the General Assembly in December 1990, the Paris Declaration and Programme of Action for the Least Developed Countries for the 1990s and the World Declaration and Plan of Action on the Survival, Protection and Development of Children all share these objectives.

The World Summit on Social Development, held in Copenhagen (Denmark) in March 1995, addressed three major objectives: eradicating poverty, creating productive employment and enhancing social integration. In the chapter on the eradication of poverty, under the heading 'Meeting the basic human needs of all' governments are urged in paragraph 36 to implement the commitments that have been made to meet the basic needs of all, including among others:

- (e) Achieving food security by ensuring a safe and nutritionally adequate food supply, at both the national and international levels, a reasonable degree of stability in the supply of food, as well as

physical, social and economic access to enough food for all, while reaffirming that food should not be used as a tool for political pressure. (f) By the year 2000, a reduction of severe and moderate malnutrition among children under five years of age by half of the 1990 level.²⁶

The Fourth World Conference on Women, held in Beijing (China) in September 1995, emphasized the role women play in the development process in general and in managing natural resources in particular. It deplores the pervasive trend towards a feminization of poverty and urges action to distribute the factors of production – credit, technology, land – more equitably, giving women equal access with men to these assets.²⁷

In the course of the negotiations of the Platform for Action adopted at Beijing, which I was privileged to chair, it was one of the most touching moments when one negotiator from a developing country emphasized the need to mention explicitly the objective of achieving food security for all members of the household. She recalled the customary practice that makes women cultivate the subsistence crops, harvest them, cook the meal, serve the meal to the male family members and eat whatever is left, little or plenty, after the males are satiated, irrespective of the particular nutritional needs that women may experience as a result of their menstruating, being pregnant or lactating . . .

The FAO World Food Summit in November 1996 in Rome (Italy) is expected to adopt a policy statement 'Towards Universal Food Security' and a Plan of Action with concrete recommendations. A draft prepared by FAO²⁸ underlines that it is intolerable that more than 800 million people throughout the world do not have enough food to meet their basic needs and that hunger affects 20 per cent of the population in the developing world. The FAO text predicts that in order to meet the needs of the additional 2.6 billion people expected to live on earth by the year 2025 and to reduce the number of hungry and malnourished people dramatically, global food production will have to increase by more than 75 per cent over the next thirty years. Moreover, employment and incomes must be generated and assistance provided to give people access to the food they need. The FAO text, cognizant of the leadtime necessary to marshal research, investment and human energy to face these challenges, urges that appropriate action be taken now. In the FAO's view this must include promoting the early stabilization of the world population in order to contribute to the achievement of sustainable development.

The FAO text underlines the interdependence between food security and overall economic, social and political stability and recognizes that

peace and food security are essential pre-conditions of each other. It emphasizes that to ensure access to food by all, our economic and social development policies must encourage broad and equitable distribution of income and food entitlements, as well as access to productive resources, empowerment of people, equality between men and women, and support to those who cannot produce or procure enough for an adequate diet, including those displaced or endangered by war or civil strife.

The policy statement calls for the promotion of food security reserves and sustainable agricultural production methods. It acknowledges the fundamental role of farmers in the attainment of food security. Given the great variation within and between countries in their potential for increasing food production and productivity, it calls for agricultural commodity and trade policies to be adapted so that they provide incentives to food producers and consumers to utilize efficiently the available resources.

The ethical challenge

International co-operation – despite many action programmes and declarations – has so far not achieved a decisive betterment of the situation. The disparities between the rich and the poor of this world grow rather than diminish. Hunger continues to plague a billion people, while in the affluent societies of the industrialized countries dieting has become a way of life and diseases fuelled by over-consumption are on the rise.

What claim can or does this situation make on us, citizens of the well-off countries who furthermore profess faith in God as father of all humanity, and who aspire to leading ethical lives?

If we agree that the situation is ethically unacceptable we need to ask ourselves the question, what should we do? There is no easy answer to this question since no one thing that we could possibly do or refrain from doing will make all the difference. Since clearly charity under the guise of food aid cannot solve the problem, the challenge is complex: to try to change the international system, to calibrate better the terms of trade, to harness the forces of globalization so as to minimize their destructive potential, to foster integration in the face of strong dynamics of fragmentation, to overcome the systemic discrimination against women, to work for equity within societies and among nations, to take the demographic challenge seriously and to support couples and individuals in the exercise of their right to determine the size of their family, to halt the depletion of non-renewable resources, to protect the environment, to minimize waste and excessive consumption.

Put more succinctly, the challenge is to redistribute the wealth of the earth more justly among all of humankind, taking into account legitimate needs of future generations. There is urgency to this challenge, not just because it would be immoral not to try, but also because it is in our enlightened self-interest to do so. There is plenty of evidence that both the intolerable poverty in the Third World and the excessive consumption of industrialized societies undermine the ecological resource base in a dangerous way. Since we are all dependent on that same ecological resource base, we are all in the same boat – spaceship earth – and we all have a fundamental interest in maintaining the viability of our planet, for ourselves and for the generations to come.

If we accept the challenge of seeking a more just distribution of the wealth of the earth we will have to answer yet another question for ourselves: how are we to distribute the wealth of the earth? Clearly we cannot aspire to bring all of humankind up to the level of resource-intensive development that we have long considered as progress. If the caloric intake of the global population were to be brought up to that of Canada or the US, agricultural output would have to triple, which would hardly be sustainable. If China were to acquire the same ratio of cars per inhabitant as in the US or Western Europe, it would practically mean giving up any realistic hope of an effective policy to avert climate change.

If bringing the rest of humanity up to our standards of living cannot be the goal of a better distribution of the wealth of the earth, how then are we to proceed? What does a life-style look like that could be extended to all people without doing irreparable harm to the earth?

In this quest for a globally sustainable life-style I have no ready-made answers to offer, but only a few suggestions for routes to explore.

While the quest for a sustainable life-style engages us in the first instance as private individuals, it also has a public side to it. I will therefore also suggest that we ask ourselves how we could better influence the political decision-making in order to promote such a globally sustainable life-style nationally and internationally, and in order to foster a change of the international system towards greater equity. Last, but not least, I will try to raise some questions as to how the economic processes could be better put to the service of human needs.

Towards a globally sustainable life-style

The life-style that currently holds sway in industrialized countries has not been able to bring about general happiness and human fulfilment among its devotees; rather, it seems to have intensified alienation

and attendant behaviour, such as drug- or substance-abuse. It has furthermore contributed to a perpetuation and even worsening of the disparities between rich and poor within a given nation and in terms of the North–South differential. Finally, it has brought our earth to the brink of ecological disaster. This triple verdict on the life-style does not allow for an appeal. It furthermore implies that the underlying value system also needs to be re-thought.

The discussion on changing patterns of consumption and production – one important aspect in the quest for a globally sustainable life-style – that originates in Agenda 21 has yielded, among other things, the following definition: sustainable consumption is:

the use of goods and services that respond to basic needs and bring a better quality of life, while minimising the use of natural resources, toxic materials and emissions of waste and pollutants over the life cycle, so as not to jeopardise the needs of future generations.²⁹

In this context it is important to underline that sustainability cannot satisfy itself with intergenerational equity, but also has to concern itself with alleviating existing present-day inequities, as pointed out by Nobel laureate Robert M. Solow in his contribution to the *Human development report 1996*.³⁰

At its last session in April/May 1996 the Commission for Sustainable Development urged governments to pursue, among other things, the following routes in the quest for sustainable consumption patterns:

- to seek for an appropriate balance in approaches directed to supply and demand sides
- not to use the concept of eco-efficiency as a substitute for changes in unsustainable life styles of consumers
- to give more attention to the role that media, advertising and marketing play in shaping consumption and production patterns
- to seek for optimal mixes of regulatory, voluntary, economic and social instruments and measures, based on close collaboration between the public and private sectors, to make production and consumption more sustainable, taking due account of the potential roles of domestic measures, such as education, procurement policies, eco-labelling, extended and shared producer responsibility, environmental auditing and accounting, environmental taxes, other market-based instruments, and the reduction and removal of environmentally damaging subsidies
- to exchange information on experiences gained.³¹

In the discussion on changing consumption and production patterns a lot of emphasis is being put on efficiency gains. There is an

increasing awareness, however, that – above and beyond efficiency gains – we need to reorient the value system that underlies our current life-styles in a decisive way so that it becomes again congenial to the realities of our time.

For this reorientation to happen a public debate needs to be engaged in on the widest possible scale. We should all contribute our share. When this public debate emerges it will provide, I think, a real window of opportunity for Christians. They can use it to speak to questions of sustainability and global solidarity from their own vantage point in order to influence the process of reorientation of the societal value systems. It is deplorable that relatively little discussion is going on so far in Christian quarters on questions of sustainability and global solidarity, and that no real leadership is assumed to this date by the major Churches.

I would also think that it could be a major prophetic service of groups of committed Christians to model in a convincing way elements of this sought-after globally sustainable life-style. This would probably include emphasizing being rather than having and doing, caring rather than possessing, solidarity rather than domination. It would probably also explore ways of voluntary simplicity of life and renouncement of the superfluous. It might re-discover the importance of human-sized communities and stable cultural practices.

In addition to a good deal of experimentation that will be necessary about what is desirable and feasible, there is much work ahead in terms of elaborating a coherent value system that would support a globally sustainable life-style. Here are just a few random examples of questions that we may need to ask.

In the context of advanced globalization in which we find ourselves at the end of the twentieth century the Old Testament question ‘Am I my brother’s keeper?’ takes on a new significance which we have to make fruitful in practical living. The commandment not to covet my neighbour’s riches begs for a new interpretation if we bring into play concepts like ‘ecological space’ and global equity. Principles – which are by now well established in international and national environmental law, such as the precautionary principle, the polluter-pays principle or the prior-informed-consent procedure – should be examined as to their suitability as a general ethical guideline. The relationship between the protection of the rights and interests of the individual and the achievement of the common good will have to be re-thought. Effective ways of taking into account the legitimate interests of future generations will have to be developed.

Political decision-making

The question of a globally sustainable life-style touches the concrete life-decisions of each individual. In order to change the international system and to bring about a more equitable distribution of the wealth of the earth's resources many individual life-decisions will have to add up. At the same time it will be important to use the political process as effectively as possible to foster the emergence of a new globally sustainable life-style on the national level and to promote decisions that would move the international system in the desired directions. I would like to make a few remarks to the latter subject.

The political process in parliamentary democracies has an inherent tendency to concern itself primarily with short-term questions and to relegate long-term problems to a secondary level of attention. This is unfortunate, since all the issues concerned with ecological sustainability and social equity can only be tackled in a medium- or long-term time frame. The political process in parliamentary democracies does react, however, to shifting priorities in the electorate with great sensitivity. It would therefore be important to lobby for greater attention to long-term questions.

There is quite a lot of evidence suggesting that inclusive, bottom-up processes of public participation lead to better solutions in issues of sustainability than solutions imposed top-down. We should therefore work towards increasing public participation and strengthening the role of non-governmental organizations, including grass-roots groups.

Only an educated electorate will be able to decide in a responsible way. Sustainability and social justice issues are very complex. It is therefore particularly important to offer help to break down the complexity of the issues as much as possible, to involve as wide a public as possible in discussions and reflections, and to raise awareness.

In the present circumstance there are powerful forces of fragmentation at work. It is therefore particularly important to reinvigorate the public discourse on international solidarity. The lesson that global issues teach us about the dependence of our long-term well-being on the sustainable management of the global environmental goods has not yet penetrated the consciousness of the average voter sufficiently to generate responsible political action.

Social justice is indivisible. If we want to argue for it credibly on the international scene we must fight for it also on the national level. This seems particularly important at a juncture in time when all industrial societies experience a trend towards so-called '2/3 societies', where two-thirds of people profit from the transformations in the global

economy and roughly one-third – who are not able to adapt – suffer political and economic marginalization.

Economic processes

Since the fall of the Eastern bloc the ideology of the market reigns supreme. To promote the free-market economy world-wide has become one of the major foreign policy goals of the leading western superpower. And even China, while holding on to its variation of communism, is busily developing its own form of free enterprise and market incentives. Globalization and free trade have been hailed as new remedies for practically all ailments.

As of late, however, voices of caution have also been raised. Globalization and trade liberalization drastically intensify competition and not everybody is equally well equipped to compete at the present rapid pace. The Copenhagen Declaration on Social Development cautions that:

the rapid processes of change and adjustment have been accompanied by intensified poverty, unemployment and social disintegration. Threats to human well-being, such as environmental risks, have also been globalized. Furthermore the global transformations of the world economy are profoundly changing the parameters of social development in all countries.³²

In all societies, globalization has created a class of losers: people that are not educated enough to compete, or not healthy enough or too old. Threatened by economic and political marginalization these people flock to right-wing parties in the western societies and increase the ranks of the desperately poor in developing countries. Out of their plight social tensions are likely to arise or intensify.

The challenge therefore is how to manage these processes and threats so as to enhance their benefits and mitigate their negative effects upon people.³³

There are economists who admit that the current neo-liberal economy may not handle global issues well. In their essay 'Population, living standards and sustainability: an economic view', Mackellar and Horlacher deplore what they call 'the tragedy of the global commons'.

The market failure of most concern involves common-property, open-access resources. The 'tragedy of the commons' arises not from common ownership per se, but from the fact that no person or legal entity controls access to a commonly held resource, so the price of

using the resource is zero, and no one has an incentive to conserve it . . . Examples include deep-water fisheries, some coastal and inland fisheries, many areas in tropical forests, and semi-arid rangelands, etc.³⁴

According to these authors market failure also occurs in the realm of public goods.³⁵ Examples of public goods are clean air, the global climate, the existence of biological diversity. Public intervention is necessary to ensure the economically optimal production of public goods as long as the benefits of a public good are available to all at no cost.

The third area where market failure occurs is with regard to externalities – costs and benefits which arise in production or consumption and are borne by society as a whole, but not specifically by either the producer or the consumer (for example, neither the owners of a coal-burning power plant nor the consumers who purchase the power are forced to bear the costs of acid rain which may fall hundreds of miles away).

If we want to take seriously the challenge of better stewardship and of a better distribution of the earth's wealth these market failures will need to be addressed. First attempts to overcome 'the tragedy of the commons' and to manage public goods better have been made in a number of international instruments – such as the Montreal Protocol, the UN Framework Convention on Climate Change, the Convention on Biological Diversity and the UN Agreement reached on High-Seas Fisheries in 1994. Many of these instruments, however, are implemented only in a half-hearted way. More political pressure must be put behind implementing them.

There are also many proposals on the table to reflect better externalities in the price of goods and services – such as user fees, the elimination of subsidies on natural resources, in particular energy and water, environmental taxes, and tradeable emission permits. Many of these proposals encounter the determined resistance of those who profit from the current state of affairs and disregard the wider picture of social and intergenerational justice. Leadership from Christian quarters could make a lot of difference.

Conclusion

Food security goes to the heart of the sustainability problem. If we want to change the situation – a world in which almost a billion people is threatened by hunger while there is at the same time unprecedented affluence – we have to take on the complex nexus of population,

resource base, economic development and consumption. This is no easy task, but it is not a hopeless one either.

In this article I have proposed three avenues to pursue:

First, as Christians aspiring to give concrete expression to the commandment of love of neighbour we should seek to create a broad dialogue in our societies on the development of a globally sustainable life-style. We can build on work already done in terms of changing consumption patterns and enhancing eco-efficiency. We should be among those who try to model a new life-style, accepting the risk of trial and error. At the same time we should also work at the foundational level on building a new system of values that safeguards the concern for sustainability better than our current value system does.

Second, we should make better use of the possibilities the political system in our democracies offers. We should press our political leaders to develop a vision in which global, long-term issues can be fruitfully dealt with. We should lobby for political decisions that – in our view – would move the international system towards greater justice. And we should make all possible efforts to expand public participation and to educate the wider electorate.

Third, we should not buy into the current neo-liberal trends without examining them closely. We should counter-balance profit as the sole source of motivation by emphasizing a wider range of human-centred values. We should seek to harness the positive forces of globalization and mitigate its destructive potential. We should work actively to overcome the failures of the market with regard to the global commons and with regard to public goods. We should be ready to pay the full price for goods and services and lobby actively for prices that reflect accurately their respective environmental costs.

None of these avenues can be travelled quickly. They will not yield instant gratification. But if we are persistent they can lead to lasting change. A change that will give a billion people on the earth a better chance of eating their fill.

NOTES

¹ World Commission on Environment and Development, *Our common future* (Oxford/New York, 1987), p 118.

² United Nations, *Report on the world social situation 1993* (New York, 1993), p 28.

³ *Our common future*, p 120.

⁴ *Ibid.*, p 120.

⁵ *Ibid.*, pp 121–122.

⁶ Paul Kennedy, *Preparing for the 21st century* (New York, 1994), p 67.

- ⁷ *Ibid.*, p 68.
- ⁸ *Report on the world social situation 1993*, p 31.
- ⁹ Kennedy, *Preparing for the 21st century*, p 68.
- ¹⁰ *Report on the world social situation 1993*, p 33.
- ¹¹ Kennedy, *Preparing for the 21st century*, p 71.
- ¹² *Ibid.*, p 79.
- ¹³ Sandra Postel, 'Carrying capacity: the earth's bottom line' in Laurie Ann Mazur (ed), *Beyond the numbers* (Washington DC, 1994), p 48.
- ¹⁴ Action Programme of the International Conference on Population and Development (ICPD), A/Conf.171/13, para 1.4.
- ¹⁵ Postel, 'Carrying capacity', p 49.
- ¹⁶ Report of the International Conference on Population and Development (Cairo, 5–13 September 1994), A/Conf.171/13.
- ¹⁷ Postel, 'Carrying capacity', p 49.
- ¹⁸ *Our common future*, p 118.
- ¹⁹ *Ibid.*, pp 128–129.
- ²⁰ Ernst Ulrich v. Weizsäcker et al., *Faktor Vier* (München, 1995).
- ²¹ Agenda 21, para 4.4 and 4.5.
- ²² Postel, 'Carrying capacity', p 52.
- ²³ UNDP, *Human development report 1996* (Oxford/New York, 1996), p 13.
- ²⁴ OECD, *Development co-operation in the 1990s* (Paris 1989), p 54.
- ²⁵ Official Records of the General Assembly, 44th Session, Supplement No 19 (A/44/19), pp 1–6.
- ²⁶ World Summit on Social Development (Copenhagen, 6–12 March 1995), A/Conf.166/9.
- ²⁷ Fourth World Conference on Women (Beijing, 4–15 September 1995), A/Conf.177/20.
- ²⁸ FAO, 'Towards universal food security, draft of a policy statement and plan of action' (WFS 96/3, Provisional Version – Rev. 1).
- ²⁹ Oslo Ministerial Roundtable, *Conference on sustainable production and consumption (6–10 February 1995)* (Oslo 1995), p 9.
- ³⁰ Robert M. Solow, 'Intergenerational equity, yes – but what about inequity today?' in *Human development report 1996*, p 16.
- ³¹ Commission on Sustainable Development, Fourth Session, E/CN.17/1996/L.16.
- ³² World Summit on Social Development, *Copenhagen declaration*, para 32.
- ³³ *Ibid.*, para 14.
- ³⁴ F. Landis Mackellar and David E. Horlacher, 'Population, living standards and sustainability: an economic view' in Mazur (ed), *Beyond the numbers*, p 86.
- ³⁵ A natural resource is considered a public good when one person's consumption of that resource does not diminish another person's consumption.