- Object to the patenting of crop varieties when this makes use of crop genetic diversity from subsistence farming communities but restricts the resulting varieties to circulate only among the rich, and when natural cross-pollination passes patented genes from genetically modified crop varieties to non-modified varieties.

 Consequently, Article 27.3(b) of the TRIPS Agreement should be revised by the World Trade Organization (WTO).
- Promote critical research addressing problematic aspects of biotechnology developments. The old tradition of countering mistakes with the truth through publishing in scientific literature is the only reliable way of protecting the public interest.
- Object to biopharming using food crops, and seek to have it prohibited. Even biopharming with non-crop plants should be kept to a minimum and under strictly contained conditions in order to ensure environmental safety.

ON HUNGER AND THE RIGHT TO FOOD

In its first report (2000), the Panel noted that the fundamental ethical commitment of FAO is to ensure humanity's freedom from hunger and to promote the access of everyone to adequate food, as stated in the Organization's Constitution and subsequent commitments. This concern has been pursued at all subsequent sessions of the Panel. On World Food Day on 16 October 2007, the Director-General of FAO stated: "We must place the human being at the centre of our attention, our policies and our actions." This Panel fully endorses this statement and hopes that Member States of FAO will see this as a core concern in the reform of the organization.

The right to food and food security

As defined by the UN Committee on Economic, Social and Cultural Rights, the right to adequate food is realized when every man, woman and child, alone or in community with others, has physical and economic access at all times to adequate food or means for its procurement.

FAO defines food security as a "situation that exists when all people, at all times, have physical, social and economic access to sufficient, safe and nutritious food that meets their dietary needs and food preferences for an active and healthy life."

The vast majority of states have recognized that everyone has a fundamental right to be free from hunger (*International Covenant on Economic, Social and Cultural Rights*, Article 11.2 [UN, 1966]). States Parties to the International Covenant on Economic, Social and Cultural Rights have undertaken to respect, protect and fulfil the right to food. *Respect* by refraining from taking measures that might deprive individuals of their right to food, for example, confiscating land or deviating watercourses used for agriculture, without justification and without adequate compensation. *Protect* by ensuring that individuals are not deprived of their access to food by third parties; for example, ensuring that permits for industrial activities (such as forestry operations) do not impede access

to food or livelihoods. *Fulfil* by facilitating actions and pursuing policies that will contribute to the gradual realization of the right to food. Moreover, all those individuals who, for reasons beyond their control, are unable to meet their needs, must be provided with food or the means to procure food.

The Heads of State and Government, gathered in 1996 at the World Food Summit (WFS) at the invitation of FAO, reaffirmed the right of everyone to have access to safe and nutritious food, consistent with the right to adequate food and the fundamental right of everyone to be free from hunger. The participating States therefore committed themselves to implementing policies aimed at eradicating poverty and inequality and improving physical and economic access by all, at all times, to sufficient, nutritionally adequate and safe food and its effective utilization. They pledged their political will and their common and national commitment to achieving food security for all and to an ongoing effort to eradicate hunger in all countries, with an immediate view to reducing the number of undernourished people to half the then level by no later than 2015.

Regrettably, over the 12 years since the WFS, there has been no progress in reducing the number of hungry people. On the contrary, it has increased. At the time of the WFS, the number of undernourished people in developing countries was estimated to be 823 million people. At the end of 2008, the number stands at 967 million. This is a devastating failure.

One important aspect of the WFS Declaration in 1996 was the recognition that hunger is not primarily caused by a scarcity of food, but by a lack of access for hundreds of millions to food that exists or could be produced because they do not have the necessary assets to produce their own food or the means to procure it. The fact that many are hungry in spite of abundance means that insufficient measures are taken to prevent the occurrence of hunger.

The food crisis is not new. The problem is structural. There is an urgent need to address the root causes of hunger, the structural problems and the governance dimension. This requires coordinated international action by international agencies and other international organizations and bodies, and FAO must be expected to take a lead in this.

Required state action to ensure to everyone the right to be free from hunger

The UN Committee on Economic, Social and Cultural Rights (the Committee) has pointed out that States Parties to the International Covenant on Economic, Social and Cultural Rights (the vast majority of the international community) are required to take whatever steps are necessary to ensure that everyone is free from hunger and as soon as possible can enjoy the right to adequate food. This requires the adoption of a national strategy to ensure food and nutrition security for all, based on human-rights principles that define the objectives to be pursued, together with the formulation of targeted policies and the setting of the corresponding benchmarks for progressive realization. The strategies should identify the resources available to meet the objectives and the most cost-effective way of using them. Appropriate institutional mechanisms should be devised to secure a representative process towards the formulation of a strategy, which should set out the responsibilities and time frame for the implementation of the necessary measures.

The strategy should give particular attention to the need to prevent discrimination in access to food or resources for food, guaranteeing full and equal access to economic resources, particularly for women, and including measures to respect and protect self-employment and work that provides a remuneration ensuring a decent living for wage earners and their families, and to maintain registries on rights in land (including forests).

The Committee requires states to take appropriate steps to ensure that activities of the private business sector and civil society are in conformity with the right to food.

The Committee also emphasizes that even where a state faces severe resource constraints, whether caused by a process of economic adjustment, economic recession, climate conditions or other factors, measures should be undertaken to ensure that the right to adequate food is especially fulfilled for vulnerable population groups and individuals.

Finally, the Committee calls on appropriate UN programmes and agencies to assist, upon request, in drafting the framework legislation and in reviewing the sectoral legislation. FAO has an important role to play in this regard because of its considerable expertise and accumulated knowledge concerning legislation in the field of food and agriculture. The United Nations Children's Fund (UNICEF) has equivalent expertise concerning legislation with regard to the right to adequate food for infants and young children through maternal and child protection, including legislation to enable breastfeeding, and with regard to the regulation of marketing of breastmilk substitutes.

Guidelines for the realization of the right to food and FAO's Right to Food Unit

In their implementation of their obligations to realize the fundamental right of everyone to be free from hunger and the right to adequate food, states should draw on the *Voluntary Guidelines to Support the Progressive Realization of the Right to Adequate Food in the Context of National Food Security* (the Guidelines), adopted by the 127th Session of the FAO Council in November 2004 (FAO, 2005).

Of particular importance in this context is Guideline 8, which deals with access to resources and assets: "States should facilitate sustainable, non-discriminatory and secure access and utilization of resources, and protect the assets that are important for people's livelihoods. States should respect and protect the rights of individuals with respect to resources such as land, water, forests, fisheries and livestock without any discrimination. Where necessary and appropriate, States should carry out land reforms and other policy reforms in order to secure efficient and equitable access to land and to strengthen propoor growth. Special attention may be given to groups such as pastoralists and indigenous people and their relation to natural resources."

Guideline 8 further focuses on the need to provide opportunities for work providing adequate remuneration, to promote and protect the security of land tenure, to seek to ensure that everyone has access to water in sufficient quantity and quality, to prevent the erosion and ensure the conservation of genetic resources for food and agriculture, to prevent water pollution and protect the fertility of land and to promote sustainable management of fisheries and forestry. States should also create or encourage services that facilitate more efficient food production for all farmers, in particular poor farmers, and address local constraints such as shortages of land, water and farm power.

The Guidelines also deal with food safety and consumer protection (Guideline 9), nutrition (10), education and awareness raising (11), national financial resources (12), support for vulnerable groups (13) and the establishment of safety nets (14). Guideline 15 deals with international food aid and Guideline 16 with natural and human-made disasters, including measures to ensure that refugees and internally displaced persons have access at all times to adequate food, and in cases of disaster to provide assistance to those in need.

The Guidelines are important because they were adopted by governments themselves and they have outlined the very practical steps that have to be taken to realize this right. The Guidelines may open up a new era by realizing the right to food. All governments should be encouraged to embrace the Guidelines immediately and start taking the steps contained therein.

When the FAO Council adopted the Guidelines in November 2004, it also called for adequate follow-up to the Guidelines through mainstreaming and the preparation of information, communication and training material. FAO's Strategic Framework for 2000–2015 (FAO, 1999) stipulates that the Organization is expected to take fully into account "progress made in further developing a rights-based approach to food security" in carrying out its mission of "helping to build a food-secure world for present and future generations." The right to food was later defined in programming documentation as one of nine FAO priorities.

For this purpose, FAO's Right to Food Unit was established in order to contribute to the realization of the human right to adequate food, through it being respected, protected and fulfilled everywhere. Its task is to engage in the follow-up of the WFS Declaration and Plan of Action, the Guidelines follow-up, and to encourage and stimulate research, information and awareness, capacity strengthening and country assistance.

The ethical imperatives: recognize responsibility, ensure adequate mapping and implement an adequate response

The realization of the fundamental right of everyone to be free from hunger will not be achieved unless states recognize their responsibility in this respect and unless there is cooperation worldwide to assist those states whose resources are too limited. However, hunger exists in many countries whose overall resources are more than sufficient; therefore, the hunger is not always a result of limited national resources but frequently reflects a lack of appropriate priorities.

For states to be able to address hunger, they must also have the will to map the reality existing in their own country, to identify who are food-insecure and why, and on that basis to make a targeted policy to remove the obstacles hindering access to food for all.

It is essential to discard the widespread but mistaken conception that, if there is general economic growth, hunger will disappear. While in some cases the reduction of hunger is positively associated with economic growth, in other cases it is not. It depends on the way in which the economic growth is structured and on the recognition of responsibility by authorities. Without a sense of responsibility, there is also little effective mapping of food insecurity

Misperceptions and generalizations concerning the benefits of economic growth could be well illustrated by the debate on the social consequences of biofuel – on the one hand, the projected ideal benefits, which do not stand up to scientific scrutiny, and on the other hand, the lack of attention to harmful consequences, such as the eviction and marginalization of farmers lacking firm legal tenure and an increase in food prices without any buffering for those who are becoming more impoverished.

Many development projects, not only those related to biofuel, have a negative side. Some people or groups are further impoverished while others grow richer. However, these do not have to be the consequences of development or economic growth if the measures are more properly targeted to address those who are vulnerable, with a proper understanding of the causes of their vulnerability, and supported by the adoption of measures directly targeted to remove those causes or at least to avoid making them worse.

Attention should also be given to emergency projects, which often prioritize distribution of inputs with limited attention to social and environmental considerations. A code of conduct for humanitarian actors (including donors) that addresses these concerns should be developed.

The importance of mapping, setting benchmarks and monitoring

In the realization for all of the fundamental right to be free from hunger, what needs to be investigated first is exactly who (which groups) are food-insecure and why they are so.

This requires statistical disaggregation between rural and urban parts of the population, between men and women, between different racial or ethnic groups, between the indigenous peoples and the dominant part of the population, between castes and outcasts, and between the regions of the country that are in the central areas of economic development and those that are in the periphery.

However, that is not all. It also requires contextual information and assessment as to why particular groups are insecure, whether their situation has worsened compared with what it was before, and what has caused that deterioration. Causal analysis of manlnutrition for specific vulnerable groups will allow the effective integration of food, health and care responses for sustainable livelihoods.

The focus should be on households where those who were supposed to be the "breadwinners" are unable to have physical and economic access to food or the means for its procurement; but households that are food-insecure are often part of a wider group or category of persons.

FIVIMS and the Right to Food Unit of FAO

FIVIMS was established following the 1996 WFS at the request of Member States, intended as a key step towards achieving the WFS Plan of Action goals in the fight against hunger in the world. FIVIMS stands for Food Insecurity and Vulnerability Information and Mapping System, and its potential function is to achieve a full mapping of food insecurity and vulnerability through disaggregated information that makes it possible to identify with precision those groups that are food-insecure in terms of lack of assets or income, as well as on other grounds.

FAO plays a major role in the operationalization and implementation of FIVIMS and has devoted considerable effort to making it a useful instrument in fulfilling the commitments made by states at the WFS.

Through the FIVIMS activities at the national and regional levels, states are encouraged and helped to carry out a more careful identification and categorization of the food-insecure and vulnerable population groups, improving understanding through cross-sectoral analysis of the underlying causes, and using evidence-based information and analysis to advocate for the formulation and implementation of policies and programmes that enhance food security and nutrition.

If food insecurity and vulnerability (FIV) information systems at the national and subnational levels could be strengthened and better integrated, they would provide better and more up-to-date information to the policy-makers and members of civil society concerned with food security issues at all levels in the country.

One problem is that many states, be it for reasons of lack of resources or limited commitments, have not cooperated to the degree hoped for. As a consequence, we are still far from a fully satisfactory map of those who are food-insecure, and we know even less about why exactly those groups have come into that problematic situation of insecurity or why they are unable to escape from it.

At the global level, efforts are made through FIVIMS to promote coordinated action among partner agencies in support of best practices in the development of national and regional FIV information and mapping systems. This has the potential to strengthen a global map of who the food-insecure and vulnerable people are, how many and where, and, hopefully, on that basis to have a better understanding of why those people are food-insecure or vulnerable.

Better information and knowledge on the underlying causes could lead to targeted action to ensure eradication of extreme poverty and hunger, provided there is a genuine recognition of responsibility to respect, protect and fulfil the right of everyone to be free from hunger.

Efforts have been made by FAO to use FIVIMS in the realization of the Millennium Development Goal 1 on the eradication of extreme poverty and hunger.

One such initiative was the project Strengthening Information Systems to Guide Action and Monitor Progress towards the Millennium Development Goals, part of the Food Security Cluster of the 2003 FAO–Netherlands Partnership Programme, which focused on the production of an analytical review of the coverage of FIV issues in Common Country Assessment (CCA) and Poverty Reduction Strategy Paper (PRSP) documents.

The main objective of this review was to encourage the inclusion of the FIVIMS approach into these strategic papers for a more complete integrated analysis of the countries' situations, and hence a better targeting of national sustainable development policies and programmes. Fifty CCA and 25 PRSP reports were examined in relation to their coverage of FIV information and cross-sectoral analysis. The review had three main conclusions: (i) both CCAs and PRSPs suffer a general deficiency in their analysis of the extent and the underlying causality of FIV and of poverty of specific population groups; (ii) in both types of country reports, there is a lack of consistency between, on the one hand, priority setting and analysis, and, on the other hand, policies, strategies and interventions aimed at alleviating FIV and poverty; and (iii) CCA reports and PRSPs start with different perspectives, but both result in similar policies, strategies and interventions irrespective of whether or not FIV or poverty is identified as a development priority.

The role of non-governmental organizations and networks

In recent years, there has been a strong growth of non-governmental organizations devoted to the promotion of the right to food. A pioneering role has been played by the FoodFirst Information and Action Network (FIAN), an international organization defending the human right to food with members in more than 60 countries in Africa, America, Asia and Europe. It works for the right of small farmers and landless peoples to feed themselves, for an end to world hunger and for food sovereignty. It organizes action alerts in cases of violations of the right to food (for example, eviction of farmers from land that they need to feed themselves).

An academic and professional network for the promotion of the human right to food has been promoted by the Norwegian-based International Project on the Right to Food in Development. Under the auspices of the Cátedra de Estudios Sobre Hambre y Pobreza at Cordoba University in Spain, international efforts are under way to expand the interaction between the academic community, the committed non-governmental organizations and the international agencies in promoting the right to food.

The International Alliance Against Hunger is a voluntary association of local, national and international institutions and organizations with a common mission – to eradicate world hunger and poverty through a combination of political will and practical action. The International Alliance Against Hunger also supports individual countries in setting up national alliances that will focus on their specific needs. So far, it has not fully grasped the opportunity to link up its work to the right to food and thereby facilitate the identification of responsibility and proper mapping. It is important that it mainstreams human rights, including the right to adequate food, and makes full use of the strategies for national implementation set out by the UN Committee on Economic, Social and Cultural Rights, and of the Guidelines adopted by governments under FAO auspices in 2004.

Recommendations

The Member States of FAO should ensure that the progressive realization of the right to food shall be a strategic objective of FAO in the context of the organization's reform, and should strengthen its Right to Food Unit.

FAO should encourage states to develop national plans regarding the right to food based on strategies that comply with the recommendations in General Comment 12 of the UN Committee on Economic, Social and Cultural Rights (UN, 1999).

FAO should redouble its efforts to persuade governments to conduct a thorough mapping of FIV, and in particular a mapping and assessment of changes taking place, with adequate disaggregation and causality investigation. This mapping should be incorporated into the preparation procedures of both CCA reports and PRSPs in order not only to support a comprehensive and well-structured analysis but also to pursue an effective and appropriately targeted policy for the eradication of food insecurity for the vulnerable groups identified by FIVIMS.

FAO should motivate states to address the social and political marginalization of vulnerable groups, to recognize the causes of their vulnerability and to take appropriate action.

In particular, FAO should encourage states to prioritize the effective support, in all forms, to local, agro-ecological models of small-scale farming production as a way to overcome hunger, as recommended by the IAASTD. In particular, states should be encouraged to:

- prioritize the promotion of small farmer agriculture and the livelihoods of indigenous peoples, giving special attention to the role and situation of women in food production;
- take measures to promote and protect the security of land tenure, especially with respect to women and vulnerable groups, with special attention to equitable land distribution, with agrarian reform if necessary, as mentioned in Article 11(2) of the International Covenant on Economic, Social and Cultural Rights and Guideline 8B of the Guidelines;
- support mechanisms to prevent the erosion and ensure the conservation and sustainable use of genetic resources for food and agriculture, including the promotion of traditional knowledge, biodiversity, and local and underutilized marginalized crops;
- take measures to strengthen local markets, shortening the chain from food production to food consumption;
- promote small-scale agriculture as an important source of employment and livelihood.

The Legal Department of FAO should, in cooperation with Right to Food Unit and with the UN High Commissioner for Human Rights, promote stronger national legislation against all forms of discrimination in access to food and improve the machinery for the enforcement of such legislation.

The Legal Department of FAO should encourage states to recognize the right to food in national legislation and make it judicially enforceable, and provide technical assistance for that purpose.

The Legal Department of FAO should, in cooperation with the Right to Food Unit, encourage states to develop legislation preventing enforced eviction of peasant farmers and strengthen their legal tenure of the land they have traditionally tilled.

FAO should, in cooperation with UNICEF and the World Health Organization (WHO),

promote measures that ensure that corporations comply with the WHO Code of Conduct on Marketing of Breast-milk Substitutes.

FAO should, in cooperation with the WTO, explore whether rules concerning international trade in agriculture cause any problems for state implementation of the right to food, and should press for changes if such incompatibility can be identified.

FAO should enhance the cooperation with the non-governmental organizations committed to freedom from hunger, and should encourage the International Alliance Against Hunger to take the right to food as a basis for its work.

ETHICAL ISSUES ARISING FROM AGROFUEL PRODUCTION (LIQUID BIOFUEL USED FOR TRANSPORT).

During the last decade, much interest has focused on biomass refined into biofuel (mainly ethanol and biodiesel) and used to power transport vehicles. It has been widely claimed that the use of biofuel for this purpose can contribute to the solution of a range of problems, both environmental and social in nature. In the following, the term "agrofuel" will be used to refer to large-scale, commercial production of liquid biofuel for transport. This is in order to distinguish this production from local usages of biofuel, whether in solid, liquid or gas form, for local use, which have entirely different social and economic consequences than does agrofuel for transport.

In the face of the growing threat of global warming caused by GHG emissions, it has been argued that agrofuel can partly or wholly replace petrol and lead to a significant reduction in such emissions. Another often-made claim is that agrofuel (most often referred to as biofuel) can provide a renewable, and therefore sustainable, energy source with positive consequences for the environment. Some also claim that production of agrofuel can increase agricultural incomes for the rural poor in developing countries.

If such achievements could indeed be realized, there would be a very strong ethical argument in favour of agrofuel production, but most of these claims are not justified. It is necessary to make a realistic assessment of any claims made in favour of agrofuel.

In recent years, grave concerns have emerged and, during the last year, have grown particularly in strength and significance. There are well-documented claims that there can be serious harmful environmental and social consequences of agrofuel production and that these have been grossly underestimated. It also appears that the alleged benefits of agrofuels have been exaggerated. The growing concerns are strikingly reflected in the title of a recent working paper for the Organisation for Economic Co-operation and Development: *Biofuels: is the cure worse than the disease*? (Doornbosch and Steenblik, 2007).

This debate has received increasing attention owing to the food crisis caused by a steep increase in prices without a corresponding increase in income for the food-insecure. One cause of this crisis arises from the production of agrofuel, which competes with food production for the use of land and water.

Agrofuel (liquid biofuel produced through agricultural processes) is primarily produced as ethanol or biodiesel. The feedstocks for ethanol are generally sugar cane and