



**SUMMARY OF THE INTERNATIONAL  
CONFERENCE ON SUSTAINABLE FOOD  
SECURITY FOR ALL BY 2020  
4-6 SEPTEMBER 2001**

The International Conference on Sustainable Food Security for All by 2020 was held from 4-6 September 2001 at the International Congress Center of the Federal Parliament, Bonn, Germany. The conference was organized by the International Food Policy Research Institute (IFPRI) and its 2020 Vision Initiative, in collaboration with the German Federal Ministry for Economic Cooperation and Development (BMZ) through the German Foundation for International Development (DSE-ZEL) in cooperation with the German Agency for Technical Cooperation (GTZ-BEAF). It was supported by co-sponsors from civil society and the public and private sectors. Over 800 participants attended the meeting, including heads of state, government ministers and other senior officials, as well as representatives of academic and research institutions, United Nations bodies, intergovernmental organizations, business and industry, non-governmental organizations, and the media. Young people and developing country farmers were also in attendance.

The conference aimed to bring together key stakeholders to share their knowledge, exchange information and ideas, and move toward a consensus on identifying and implementing policies and actions needed to address the problem of food insecurity in the most effective way, particularly in the light of recent changes such as globalization, trade liberalization, technological advances and environmental degradation.

Participants heard keynote speeches and engaged in panel and audience discussions to examine why the hunger problem has not yet been solved, before focusing on emerging forces that are affecting food security, including demographic, health, nutrition, economic, technological, environmental and sociopolitical forces. On its final day, participants turned their attention to identifying methods to achieve sustainable food security by examining roles and responsibilities, and by setting key priorities for action. Discussions and conclusions from this meeting are expected to promote and catalyze action to achieve the vision of food security for all by 2020.

**A BRIEF HISTORY OF SUSTAINABLE FOOD  
SECURITY**

Widespread food insecurity is an enduring problem affecting an estimated 800 million people worldwide. Although progress has been made during the past three decades, and the number of food-insecure people as a proportion of the world's population has fallen from 37% to 18%, the number of people without adequate access to food has actually increased in Sub-Saharan Africa and South Asia. Malnutrition among pre-school children is a significant problem. It is a factor in at least five million deaths each year, and more than one in three preschool children in developing countries remain malnourished. The problem is closely linked to that of endemic poverty.

Responding to this problem, in 1993 IFPRI launched its 2020 Vision for Food, Agriculture and Environment Initiative, with the aim of stimulating dialogue, and laid down the challenge of ending food

insecurity by 2020. At the World Food Summit in 1996, the international community expressed its ongoing concerns regarding this problem, and set a goal of halving the number of people who suffer from hunger to 400 million by 2015.

According to the United Nations Food and Agriculture Organization (FAO), these goals will not be met. The FAO recently estimated that, on current trends, the 400 million target will not be reached until 2030 at the earliest, unless additional policies and actions are taken to tackle poverty and hunger. In recent years, food security has been affected by rapid changes such as globalization, further trade liberalization, and technological advances, as well as pressing environmental problems such as desertification, water shortages, land degradation and climate change. In the context of these changes, a number of organizations and individuals have been examining the policies required to address the challenge of food insecurity, and have been working to generate the political will to turn policies into action.

**REPORT OF THE CONFERENCE**

The International Conference on Sustainable Food Security for All by 2020 opened on Tuesday morning, 4 September 2001, in Bonn, Germany. Master of Ceremonies Eleni Gabre-Madhin, Fellow at the International Food Policy Research Institute (IFPRI), welcomed delegates. Observing that this conference presented a valuable opportunity to address "mankind's greatest challenge," she reminded participants that "the hunger of one is the shame of all." She then introduced the opening speakers.

**OPENING SPEECHES**

In his opening remarks, Geoff Miller, Chair of IFPRI's Board of Trustees, said participants must address the fact that 800 million people lack the food they need to lead healthy and productive lives. He said this conference would provide an opportunity for the exchange of ideas between IFPRI and its customers and collaborators. He thanked the German Government and city of Bonn for their hospitality, and also thanked other conference sponsors.

Johannes Rau, President of Germany, noted a reduction in the percentage of undernourished people in developing countries from 30% to 18% during the past 20 years, and the tripling of food productivity since 1950. However, he cautioned that the problem of chronic hunger has not been solved, with 24,000 people dying each day from the consequences of hunger – three-quarters of these being preschool children. He said that achieving the 1996 World Food Summit's goal of halving the number of hungry people by 2015, would require an enormous effort, including increasing food production and official development assistance (ODA), changing international trade rules, and supporting debt relief and the New African Initiative, recently developed by African leaders. He said this conference could help raise public awareness of the issue and place it at the top of the international agenda.

Apolo R. Nsibambi, Prime Minister of Uganda, highlighted internal and external factors preventing developing countries from achieving sustainable food security. He called for investment in market development and promotion, post-harvest handling, and effective market-oriented distribution systems. He identified subsidies as a bias in the global marketplace against illiterate farmers, as external

factors contributing to food insecurity, noting that surplus food donated by developed countries reduces pressure for sound food policies and destroys incentives for local farmers. He called for a concrete timetable to phase-out subsidies and create a level playing-field among farmers worldwide.

Heidemarie Wiczorek-Zeul, Germany's Federal Minister for Economic Cooperation and Development, recognized concerns associated with globalization and supported an equitable world trade system involving participatory and inclusive decision-making. She drew attention to several key issues, including development finance, land tenure, elimination of trade barriers and export subsidies, risk management and regulatory structures, the agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPs), and sovereignty over plant genetic resources for food and agriculture.

Bärbel Dieckmann, Mayor of Bonn, welcomed participants to Bonn, noting the city's role in hosting a number of key international conferences, and its plans to develop a United Nations campus.

Per Pinstrup-Andersen, Director General of IFPRI, noted that under business-as-usual scenarios there would be only limited progress on food security by 2020. He identified a number of prerequisites for achieving food security, including promotion of pro-poor growth, empowerment, effective provision of public goods, and prioritizing the issue.

#### **AWARD PRESENTATIONS**

On Tuesday, 4 September, the winners of an IFPRI youth poster and essay contest were announced, and the grand prize essayist, 17-year-old Thrishni Subramoney of Durban, South Africa, addressed the group. Participants were also informed that, for his creation of the 2020 Vision Initiative, IFPRI Director General Per Pinstrup-Andersen would be the next recipient of the World Food Prize, an award recognizing a substantial contribution by an individual to improving world food security and serving humanity.

#### **FOOD SECURITY IN A NEW CONTEXT: THE NEED FOR THIS CONFERENCE**

On Tuesday morning, 4 September, Rajul Panya-Lorch, Head of IFPRI's 2020 Vision Initiative, outlined the need for this conference, explaining that its purpose was to consider the implications of several new forces, and reassess the plan of action for achieving sustainable food security for all by 2020. She expressed the hope that participants could inform and educate each other, and that this would lead to concrete action.

#### **FOOD INSECURITY: WHY HAVEN'T WE SOLVED THE PROBLEM?**

The question of why the problem of food insecurity has not yet been solved was taken up in sessions held on Tuesday morning and early afternoon. Participants examined the level of commitment to ending hunger, successes and failures in achieving the goal of the 1996 World Food Summit, reasons for lack of progress, perspectives from the next generation, and alternative futures for future security.

#### **HOW COMMITTED ARE WE TO ENDING HUNGER?**

This session was chaired by Piet Bukman, President of EuronAid and former Minister of Development of the Netherlands. He stressed civil society's role and urged delegates to discuss practical solutions.

In his keynote presentation, Sartaj Aziz, Senator and former Agriculture Minister, Finance Minister and Foreign Minister of Pakistan, said the current international macroeconomic framework was ineffective in tackling food insecurity. He highlighted the "unlevel playing field" as a problem for developing countries, noting that industrialized countries provide US\$350 billion for agricultural subsidies annually. Underscoring the consensus on international hunger reduction targets, he called for action to promote real change. He hoped the EU would take a leading role on global hunger, as it had recently done on climate change.

**SUCCESSES AND FAILURES IN ACHIEVING THE GOALS OF THE WORLD FOOD SUMMIT:** Session Chair Michael Rewald, Director of CARE's Partnership and Household Livelihood Security Unit, noted that the lives of the poor are extremely difficult and complex, and discussed CARE's rights-based approach to empowering people to take responsibility and create change.

In his keynote presentation, William Meyers, Director of the FAO's Agriculture and Economic Analysis Division, recalled the goals and commitments of the 1996 World Food Summit, and presented statistics suggesting that success in reducing undernourishment is related to increasing per capita growth rates of real GDP and agricultural production, as well as to peace and social stability.

**EIGHT HUNDRED MILLION STILL HUNGRY: WHY HAVE WE MADE SO LITTLE PROGRESS?** Session Chair Angela Thoko Didiza, South African Minister for Agriculture and Land Affairs, said ongoing re-evaluation of policies is necessary to tackle this problem, and drew participants' attention to the New African Initiative.

Volker Hausmann, Secretary General of Deutsche Welthungerhilfe, focused on the role of non-governmental development organisations (NGDOs), noting that they are more responsive to the affected communities. He also emphasized the importance of political lobbying. He called for partnerships between NGDOs and private companies, and urged companies to make longer-term investments in technologies to promote food security.

Heinz Imhof, Chair of the Board of Syngenta, identified non-logistical factors affecting food production, and urged cooperative approaches in introducing new technologies. He said agribusiness can help by increasing the quantity and quality of yields per hectare, while reducing the burden on the environment, through advances in insecticides, herbicides, and seeds. He said businesses are open to cooperating with other stakeholders.

David Beckmann, President of Bread for the World, said progress has been slow due to a lack of serious effort, as demonstrated by declining ODA budgets. He said IFPRI's 2020 Vision documents define what needs to be done to accelerate progress on hunger reduction at a relatively low cost. Beckmann noted growing public support for reducing poverty and hunger, and urged others present to join in the international coalition against hunger, targeting in particular the next G-8 Summit.

In the subsequent audience discussion, David Beckmann agreed with one participant's comment that development assistance rarely reaches the "poorest of the poor," while Volker Hausmann disagreed with this assessment. One participant advocated expansion of farmland, in addition to increasing productivity, to raise food production. Another participant drew attention to controversial questions raised so far, including: whether poverty was a more critical issue than food; whether food targets are needed if we have poverty targets; whether the focus should be on food security or livelihood security; what the role of subsidies should be; and what part "safety net" programmes should play in alleviating food security.

**PERSPECTIVES FROM THE NEXT GENERATION:** In this session, David Dalrymple, a ten-year old university student and community volunteer from the US, compared the lives of children in developing countries with those of industrialized countries, focusing on the widespread hunger and illiteracy in developing countries. He said wealthy nations should not ignore developing countries' problems, and advocated the transfer of agricultural and computer technologies.

**ALTERNATIVE FUTURES FOR FOOD SECURITY:** Manfred Kern, Head of Global Technology Communication, Aventis CropScience, chaired this session. He stated that the provision of food security is a multi-disciplinary challenge, and noted the need to double food production within the next 25 years to meet projected demand.

Based on projections from IFPRI models and scenarios, Mark Rosegrant, Senior Research Fellow at IFPRI, called for urgent investment in agriculture, water and education to reduce malnutrition among children, noting that agricultural productivity growth has slowed due to declining investments in research and infrastructure, and to environmental problems. He suggested that rapid economic growth in China or India and the consequent rise in domestic demand for food would not greatly affect international food prices, and thus would not be detrimental to other developing countries' food security. He also stressed the benefits for developing countries of trade liberalization in the agricultural sector.

In the ensuing discussion, participants explored the roles and responsibilities of different stakeholders, and the assumptions underlying the IFPRI models. Mark Rosegrant responded to a proposal to shift food consumption from meat to grains by noting that many farmers in developing countries would lose livelihoods and export opportunities. Regarding pessimistic projections for malnutrition in Africa in 2020, Rosegrant noted that the IFPRI model predicts problems not with increasing supply, but with population-induced demand growth. In estimating the funds that would be needed to eliminate malnutrition completely, Rosegrant drew attention to decreasing marginal returns on investment.

#### **EMERGING FORCES: FROM HERE TO 2020**

From Tuesday afternoon to Thursday morning, 4-6 September, participants heard keynote presentations and engaged in discussions on emerging forces affecting efforts to achieve sustainable food security. On Tuesday afternoon, they examined demographic, health, and nutrition forces. This was followed later on Tuesday afternoon and on Wednesday morning by an in-depth consideration of economic forces, which included sessions on: productive resources needed by the poor to escape poverty; the role of the World Trade Organization (WTO) in making globalization work for developing countries; methods to make globalization benefit the poor; the impacts of industrialized countries' agricultural policies on food security; and an EU perspective on promoting broad-based economic growth and food security.

On Wednesday afternoon, participants examined technological and environmental forces, including the future of agriculture in Sub-Saharan Africa and South Asia, and the impact of climate change, food production technologies, and water issues. Sociopolitical forces were addressed on Wednesday afternoon and Thursday morning, with sessions specifically dealing with food security as a symptom of poverty, with the need to empower low-income women, and with governance problems.

#### **DEMOGRAPHIC, HEALTH AND NUTRITION**

**FORCES:** On Tuesday afternoon, Jochen de Haas, Head of World Food Security and Rural Development with the German Federal Ministry for Economic Cooperation and Development, chaired the session on changing population profiles and needs, demography, nutrition, dietary changes and HIV/AIDS, and introduced the panel of speakers.

On the issue of demography, John Bongaarts, Vice President of the Population Council, highlighted unprecedented demographic change in recent decades. He noted that population is growing rapidly, with an additional three billion people projected by 2050, almost entirely in cities in developing countries. He identified various policy options, including: strengthening family planning and reproductive health programmes; investing in human capital and improving the status of women; and delaying childbearing and addressing the needs of adolescents.

Focusing on issues of nutrition, Lawrence Haddad, Director of IFPRI's Food Consumption and Nutrition Division, challenged what he described as nutrition-related myths, presenting evidence to disprove commonly-held views that: good progress is being made in reducing child malnutrition; nutrition has little to do with economic growth and poverty reduction; increases in income will quickly lead to reductions in malnutrition; malnutrition represents a

parental failure; we do not know what actions to take; and it is too expensive to deal with these problems effectively. He proposed that developed countries target ODA more towards least developed countries (LDCs), and that developing countries divert health resources from their wealthy citizens to the poor.

On dietary changes, Susan Horton, Professor of Economics and Chair of Division of Social Sciences, University of Toronto, discussed the effects and costs of over-nutrition, including increases in diet-related non-communicable diseases. She advocated policies supporting integrated food and nutrition plans and promotion of healthy and traditional diets.

Gabriel Rugalema, Senior Policy Advisor, United Nations Development Programme (UNDP) HIV Project for Sub-Saharan Africa, defined the relationship between food security and HIV/AIDS as "bi-directional," positing that food insecurity and risk behavior exacerbate one another. In outlining the threats of each to social stability, economic security and labor, he stressed that food security can play a significant role in addressing populations at risk and reducing infection.

In the ensuing discussion, participants further explored the implications for food security of HIV/AIDS, globalization, conflict, migration, and income and gender inequality. Participants noted that: HIV/AIDS increases vulnerability to other epidemics, such as malaria and dengue fever; conflict can disrupt food production and spread disease; and genuine food security requires not only adequate supply, but also physical, economic, social, and physiological access. Participants also discussed the relationships between childhood malnutrition and future productivity.

**ECONOMIC FORCES: What Productive Resources Do the Poor Really Need to Escape Poverty?** On Tuesday afternoon, 4 September, Christian Friis Bach, former Chair of the Board of Mellemfolkeligt Samvirke and Associate Professor at Denmark's Royal Veterinary and Agricultural University, chaired this session on economic forces and on productive resources the poor need to escape poverty. He noted that achieving international development targets requires political will and economic redistribution.

Keynote speaker Michael Lipton, Research Professor of Economics at Sussex University's Poverty Research Unit, highlighted the paradox that while the need to address rural and agriculture problems is recognized, relevant aid is declining, and donors and domestic governments are not focusing on rural development. He underscored governments' role in promoting land redistribution, and also highlighted rural water supply problems. He reiterated that without additional action, the 2015 hunger reduction target would not be achieved.

In the ensuing discussion, one participant drew attention to demand side as well as supply side issues. Another noted that the focus on raising people above the "dollar a day" income level might distract attention from those earning well below this level, and is not necessarily an appropriate concept to focus on in addressing poverty and hunger.

**Making Globalization Work for Developing Countries: The Role of the WTO:** Mahmud Duwayri, Minister of Agriculture for Jordan, chaired this session on Wednesday morning, 5 September, asking participants to consider whether or not globalization promotes food security and helps alleviate hunger and poverty.

Keynote speaker Supachai Panitchpakdi, Designate Director General of the WTO, said globalization can bring benefits but also risks. He speculated that damage caused by the Asian crisis of 1997-98 could be repeated elsewhere, and urged global preparedness to address such scenarios. On trade, he supported changes at the WTO to improve the preparation and participation of developing countries. He said the next trade round should address issues of importance to developing countries, including anti-dumping measures, textiles and agriculture.

During the ensuing discussion, Supachai Panitchpakdi highlighted WTO accession procedures as an area for improvement. Noting that 30 countries are seeking to join the WTO, he proposed discussion on allowing countries to become WTO members or associate members while deferring implementation of necessary but time-consuming domestic legal reforms. He also praised the EU's "Everything but Arms" initiative, which removes trade barriers from most LDC exports, and urged the phase-out of remaining exceptions.

**Putting Globalization to Work for the Poor:** This session took place on Wednesday morning, and was chaired by Isher Judge Ahluwalia, Director and Chief Executive of the Indian Council for Research on International and Economic Relations, who highlighted opportunities for trade, investment and technology transfer offered by globalization. Identifying problems and possible barriers, Chair Ahluwalia asked whether developing countries have market access to developed countries, how the TRIPs Agreement affects technology transfer, and what should be done to address non-tariff barriers.

Eugenio Diaz-Bonilla, Research Fellow, IFPRI, drew attention to disputes on whether globalization is benefiting or hurting the poor. He discussed drivers of globalization at the domestic and global levels in relevant areas, including governance, international trade and finance, technology and environment. He stressed the need to prioritize pro-poor policies to ensure that globalization helps those suffering from poverty and hunger.

Robbin Johnson, Senior Vice President, Cargill Inc., highlighted the need for domestic reforms within poor countries, with a focus on rural development and small farmers. He discussed globalization's effects on domestic transformation, and said making globalization work for the poor requires attention to broadening socioeconomic transformation while avoiding external control.

Ango Abdullahi, Special Advisor on Food Security to the President of Nigeria, expressed disillusionment over realizing globalization's potential benefits for developing countries, due to unequal standards and an uneven playing field. He said that while globalization should address trade, investment, technology transfer and development assistance, the current emphasis on trade over investment often leaves developing countries unable to access technology and conduct research.

Chee Yoke Ling, Legal Advisor, Third World Network, drew attention to two conflicting paradigms: that of sustainable development that promotes increased cooperation and collaboration, and that of market access and trade rules that promote protectionism. Stating that current trade rules are biased against the poor, she advocated trade policy reform. She opposed further extension of WTO rules into areas that do not relate directly to trade, and called for revision of International Monetary Fund (IMF) conditionalities.

Robert Thompson, Director of the World Bank's Rural Development Department, highlighted the problems faced by farmers in developing countries resulting from OECD rules, and said upcoming WTO negotiations should reduce subsidies and protectionism. He expressed concern that support to agriculture has "fallen off the donor agenda," and drew attention to pro-poor measures in the World Bank's current review of its rural development strategies.

During the subsequent discussion, participants addressed a number of issues, including: farmers' cooperatives; social safety nets; bias against the rural poor; problems of market liberalization; and the link between low food prices and lack of ODA for agriculture. One participant explained the paradox of the "90/10 Rule," that while most grain is consumed near where it is produced, the 10% exchanged across borders sets world prices.

**The Long Arm of Industrialized Countries: How Their Agricultural Policies Affect Food Security:** On Wednesday morning, Win Simej, Professor at the Institute of Economic Development at South China Agricultural University, introduced the session on how

industrialized countries' policies affect food security, reflected on personal experiences with food insecurity, and urged speakers to provide possible solutions to this issue.

Alex McCalla, Professor Emeritus in Agricultural Economics, University of California-Davis, argued that agriculture should drive developing countries' export-led growth, but noted that this is blocked by developed country protectionism. He expressed pessimism about the prospects for reduced developed country protectionism, given the delays in launching a new trade round and renewed calls for subsidies within the US and EU.

Shishir Priyadarshi, South Centre, examined how industrialized countries' agricultural policies affect food security in developing countries. He described the negative effects of domestic support, export subsidies, tariff escalation and non-tariff barriers. Linking food security to increased rural incomes, he advocated protection from cheap imports, free and fair market access, and support for small farmers.

In the ensuing discussion, participants were informed of a proposed food aid fund to be submitted to the WTO, considered the distinctions between distorting and non-distorting subsidies, and concluded that subsidies can have both beneficial and negative impacts.

**Promoting Broad-Based Economic Growth and Food Security: A View from the European Union:** Keynote speaker Poul Nielson, EU Commissioner for Development and Humanitarian Aid, labeled food security a "moral imperative." He outlined the European Commission's approach to food security as an integral part of poverty reduction. He noted progress on linking the EU's trade and development policies, and highlighted its "Everything but Arms" initiative and the Cotonou trade agreement that supports developing country exports, as well as its support for a new WTO round emphasizing developing countries' interests. He said the EU's food aid policy has evolved and improved. He also noted reductions in EU export subsidies, and suggested that the EU's current Common Agricultural Policy cannot continue after EU enlargement.

**TECHNOLOGICAL AND ENVIRONMENTAL FORCES: The Future of Agriculture in Sub-Saharan Africa and South Asia:** On Wednesday afternoon, Peter Hazell, Director of IFPRI's Environment and Production Technology Division, introduced the session on technological and environmental forces affecting food security in relation to the future of agriculture and of the small farm in Sub-Saharan Africa and South Asia. He identified new challenges for small farms that threaten farmers' critical role in pro-poor development policies, and raised the question of how to rise above subsistence.

Dunstan Spencer, Managing Director of Dunstan Spencer and Associates, Sierra Leone, discussed prospects for small farmers in sub-Saharan Africa, who face challenges of globalization, declines in prices for traditional exports, increasing input costs, loss of competitive advantages and insufficient access to credit. He called for global cooperation to further good governance, improve health, and invest in people-centered development.

Ashok Gulati, Director of IFPRI's Markets and Structural Studies Division, described challenges facing farmers in South Asia, where 2% of the world's income supports 20% of its people. Challenges include efficiency of small landholdings, population growth, globalization, rapid economic growth and rising water scarcity. He urged the reform of rules governing the buying and selling of land, water pricing reforms, credit provision, investment in research and infrastructure, and liberalization of trade in rice, milk and sugar.

**How Will Agriculture Weather Global Climate Change?** Pedro Sanchez, Director General of the International Center for Research in Agroforestry, chaired this session on Wednesday afternoon. Stressing that climate change is a development issue, he noted

that Africa is predicted to be the region most vulnerable to the adverse effects of climate change, and urged both adaptation and mitigation.

In his keynote address, Martin Parry, Director of the University of East Anglia's Jackson Environment Institute, highlighted key conclusions from the Intergovernmental Panel on Climate Change's Third Assessment Report, including that climate change is occurring already, and that some regions, including Africa and parts of Asia, will suffer from increased drought risk and will find their crop yields and agricultural output adversely affected. This is projected to increase the additional number of people at risk of hunger by 10%, mostly in Africa. Arguing that mitigation measures alone will not solve the problem, he supported adaptation measures, with particular emphasis on investment in Africa, the Indian subcontinent, and small islands.

**Complementary Technologies, One Goal: Approaches to Sustainable Food Production:** On Wednesday afternoon, session Chair Klaus Amman, Director of Bern University's Botanical Garden, introduced the issue of complementary technologies for achieving the goal of food security. He expressed his support for regional and country-based decision making, and advocated integration of organic and high-technology farming. He then introduced the panel speakers, who addressed agroecological, conventional, and biotechnological approaches to food security.

On agroecological approaches, Jules Pretty, Professor at the Center for Environment and Society at the University of Essex, drew on research showing that increasing agricultural productivity is possible through sustainable agriculture, which he defined as the integration of ecology, local knowledge and biodiversity in food production, to improve natural assets and create public goods. Manuel de Jesus Reyes, a smallholder farmer in Honduras, recalled his experience with the traditional practice of burning forests to create fields, and explained that this approach was unable to meet his family's nutritional and economic needs, as soil rapidly became unproductive. He described his subsequent success in reducing erosion and dramatically increasing productivity by using sustainable agricultural techniques, including incorporating organic material to fertilize soil and utilizing natural means to control insects.

Regarding conventional approaches, Prabhu Pingali, Director of the Economics Programme, International Maize and Wheat Improvement Center, discussed conventional research-based technology. He stated that conventional breeding and research still has much to offer, but that integration of new technologies, including genetic engineering and genomics, would become essential to offset declining food production. K. Rajarathinavelu, a farmer from Allivaram Village, Tamil Nadu, India described the effects of the Green Revolution in his village, where rice is cultivated three seasons a year. He related how mechanization, irrigation, fertilization, pest management and electrification have tripled production yields, increased standards of living and helped the local economy.

On biotechnological approaches, Jennifer Thomson, Professor of Microbiology, University of Cape Town, urged a "doubly Green Revolution," and advocated the use of biotechnology to deliver crops with properties such as virus resistance, drought tolerance, and fungi and insect resistance.

Participants then discussed a number of issues, including: public-private partnerships; corporate control of seeds; traditional knowledge and benefit sharing; and environmental and health implications of modern biotechnology. Participants urged transparent assessment of alternative techniques, and greater investment in agroecology and farmer-led innovation.

**Troubled Water, Water Troubles: Overcoming an Important Constraint to Food Security:** Margaret Catley-Carlson, Chair of the Global Water Partnership, chaired this session, which was held Wednesday afternoon. She noted that 70% of water supplies are used for agriculture, and highlighted problems of population, pollution and extreme weather events that deplete available water supplies.

Keynote speaker Frank Rijsberman, Director General, International Water Management Institute, noted a recognition among previous speakers that water is one of the biggest constraints to food security. He examined global water use and problems resulting from scarcity. He also defined land, water, nutrients and genetic resources as "an integrated set of resources" to be managed by all stakeholders, and concluded by stressing the global challenge of growing "the food we need with the water we have."

**SOCIOPOLITICAL FORCES: Food Insecurity: A Symptom of Poverty:** Courage Quashigah, Minister of Agriculture for Ghana, introduced this session on Wednesday evening, 5 September, highlighting linkages between food insecurity and poverty, and supporting clear goals and indicators.

Keynote speaker Clare Short, Secretary of State for International Development, United Kingdom, stated that most people living in poverty are not self-sufficient in food production and therefore need money to purchase food. She argued that as a result, focusing on agricultural production alone does not offer a solution to poverty or hunger. She highlighted development of national poverty reduction strategies as a way to incorporate food security into broader development goals. She also supported the "sustainable livelihoods approach" to poverty reduction, and noted inadequacies in a purely sectoral approach. She said food aid should be both a "last resort" and untied. She also supported the Paris 21 initiative on monitoring and indicators as a means to identify groups where hunger is leading to deepening chronic poverty.

**Empowering Low-Income Women:** The issue of empowering low-income women was taken up in a session held on Thursday morning, 6 September. Agnes Quisumbing, IFPRI Senior Research Fellow, chaired this session. She stated that empowering low-income women increases food security because women are critical to agricultural production, family nutrition and management of natural resources. Presenting key research findings, she indicated that increasing women's incomes and capital generates improvements in education, child health, households and prospects for the next generation. While legal and institutional frameworks still need to be strengthened, she said efforts to empower women are succeeding. She then introduced the panelists, each of whom addressed one of the following issues in relation to empowering low-income women: education, agricultural programmes, and property rights.

On the issue of education, Elizabeth King, Lead Economist, World Bank, stressed the importance of girls' education as a development goal and strategic investment. She offered data showing that gender gaps are often larger among the poorest income groups; poor households bear the costs of gender inequality in education and limit girls' future opportunities; HIV infection rates are higher where gender gaps in literacy are wider; and societies that discriminate on the basis of gender suffer increased child mortality, poor health, and less effective investments by women in their own or their children's education. Noting that gender disparities persist due to societal structures and institutions, economic policies and control in household decision-making, she emphasized a strategy of economic pricing policies, such as school fee vouchers to promote enrollment, that could increase demand for girls' schooling by reducing costs.

On agricultural programmes, Wilberforce Kisamba-Mugerwa, Minister of Agriculture, Animal Industry and Fisheries in Uganda, stressed women's important role in food security both at the national and the household level, noting that they produce 78% of food in developing countries. He supported mainstreaming their needs into agricultural programmes through participation in design and monitoring, gender-disaggregated statistics, and access to land and technology. He also highlighted the impact of HIV/AIDS on the rural labor force and rural families.

On property rights, Ruth Meinzen-Dick, IFPRI Senior Research Fellow, stressed that while women are often responsible for food, property rights are usually held by men, with women often being

deprived of these rights. Noting that improved access to property rights raises women's status and security, she added that it also increases investment in children. Highlighting the increasing devolution of resource management responsibilities to local communities, she said this shift should involve women's participation and be sensitive to public perceptions and norms. She concluded that investment in women's groups could build long-term social capital.

In subsequent discussion, education was highlighted as important for the empowerment of women, and the differences between the roles and status of men and women in developing countries were stressed. One participant underscored the important role of women's movements in advocacy and activism to promote women's rights, and in this context globalization was identified as a positive factor. Noting the lack of women in high-level political and other senior positions in many developing countries, one participant called for change at all levels in attitudes towards women. Participants also highlighted the need to measure the impacts of projects on women's empowerment.

#### **Governance and Food Security: Acting in the Public**

**Interest:** Solita Monsod, former Minister of Economic Planning of the Philippines and Chair of the Philippine Human Development Network, chaired this session. She drew attention to comments made in earlier sessions emphasizing good governance at the national and international levels, described governance as a cross-cutting theme, and highlighted the impact an organized, coordinated civil society can have on government decisions. She then introduced the panelists, noting that they would each focus on one of the following three issues: conflict and food security, the right to food, and corruption.

On conflict and food security, Philippe Guiton, Africa Relief Manager, World Vision, drew attention to the many conflicts since the end of the Cold War, noting that 90% of conflict victims are civilians. He said food insecurity can be both a consequence and a cause of conflict. Citing examples of countries – such as Sudan – that could easily feed themselves but for ongoing conflict, he stated that “food security for all will remain a dream as long as conflict exists.” He recommended that donors increase targeted assistance to poor countries with strict conditions to avoid misappropriation, and that they develop sensible long-term goals. He also recommended that donors, international organizations, and NGOs incorporate conflict prevention and mitigation into relief and development programmes, and that NGOs should constantly measure the impact of their work on assisted populations to improve their programmes, help avoid dependency on food aid and ensure that they do no harm. Finally, he urged the international community to take action to “break the economy of war.”

In her presentation on the right to food, Charlotte V. McClain, Commissioner of Economic and Social Rights, South African Human Rights Commission, highlighted the universal right to food safety as formulated in the South African constitution and stressed the South African Government's obligation to ensure reliable access to food through appropriate policies and planning. She emphasized the need to focus on vulnerable groups and the importance of good governance and stable democracy.

On the issue of corruption, Tunku Abdul Aziz, Vice-Chairman of Transparency International, stressed that good governance is the key to sustainable food security. He said corruption undermines private sector development and discourages investment, as it leads to decisions that are contrary to the common good. He stated that countries with weak institutions are particularly prone to corruption and that such countries should be assisted in strengthening political and economic environments. He advocated exposing corruption wherever possible and said corruption may be the “missing factor in the equation” for many countries in seeking to achieve food security.

In the ensuing discussion, participants highlighted the need for: a global institution supporting the right to food; a more active and aware civil society; an independent judiciary; and empowerment of women. Participants also supported increased resources and

capacity building for developing country governments to implement biosafety and anti-corruption regulations. They highlighted the contribution of the OECD Convention on Corruption, and the ineffectiveness of sanctions. They also urged further research on: the social construction of good governance; measurements of food security and corruption; and the impacts of development assistance on food security and social tension.

#### **SUSTAINABLE FOOD SECURITY FOR ALL: REALIZING THE VISION**

During the conference's final afternoon on Thursday, 6 September, participants addressed the issue of realizing the vision of sustainable food security for all. They convened first for a session on the roles and responsibilities of industrialized countries, before engaging in extensive discussions aimed at setting clear priorities for action to achieve this vision. Finally, they concluded with a session to identify who is responsible for achieving food security.

**THE ROLES AND RESPONSIBILITIES OF INDUSTRIALIZED COUNTRIES IN ASSURING SUSTAINABLE FOOD SECURITY:** This session was chaired by Grace Akello, Minister of State for Entandikwa in Uganda, who encouraged participants to help define a common vision on how to eradicate hunger.

Uschi Eid, Parliamentary State Secretary to the German Federal Ministry for Economic Cooperation and Development, said determining priorities requires designating responsibility for ending hunger. As input to the panel discussion to follow, she hypothesized that food security demands good governance, revision of protectionist agricultural policies and subsidized exports, and a higher place on the public agenda. On actions needed, she prioritized: agricultural development; women's access to land and credit; income generation and poverty relief; access to food for hungry people; and the fight against HIV/AIDS. On WTO rules and agreements relating to biodiversity and intellectual property rights that affect food security, she recommended that TRIPs Agreement not contradict the goals of the Convention on Biological Diversity, adding that developing countries must retain rights to seeds that can be reused, and that sovereignty over traditional knowledge and genetic resources must be preserved. She further emphasized that Germany is committed to: using WTO negotiations to reduce EU export subsidies; assisting developing countries to make choices in opening their markets; mitigating the effects of climate change; and supporting agrarian reform and rural credit systems.

**SETTING THE PRIORITIES FOR ACTION:** On Thursday afternoon, session Chair Keith Bezanson, Director of the Institute of Development Studies at the University of Essex, challenged participants to set key priorities for action to make sustainable food security a reality. Noting that international conferences often identify “so many priorities that nothing can be a priority,” he said this conference should identify just a few issues that are the top priorities, thus providing clear guidance for action.

Rajul Pandya-Lorch, Head of IFPRI's 2020 Vision Initiative, presented a draft paper produced by IFPRI that suggests the priority policy actions required to achieve the 2020 Vision of a food-secure world for all. The paper notes that much more needs to be done to achieve sustainable food security for all. It states that appropriate action must take into account driving forces influencing the prospects for global food security: accelerated globalization, including trade liberalization; technological changes; degradation of natural resources and water scarcity; crises in health and nutrition; rapid urbanization; the rapidly changing structure of farming; ongoing conflict; climate change; and changing roles and responsibilities of key actors. Rajul Pandya-Lorch then outlined seven broad areas the paper recommends for high priority policy action: investing in human resources; improving access to productive resources and remunerative employment; improving markets, infrastructure, and institutions; expanding appropriate research, knowledge, and technology; improving natural resource management; promoting good

governance; and supporting sound national and international trade and macroeconomic policies. She welcomed comments and feedback on the paper.

Ian Johnson, Chair of the Consultative Group on International Agricultural Research (CGIAR) and World Bank Vice President, said priorities would differ among countries. In supporting greater visibility of food security at the international level, he emphasized a focus on: agricultural policies directed at poor people; economic growth and increased agricultural productivity framed within the context of environmental responsibility; new institutions and arrangements, including a platform for discussion among all stakeholders on biotechnology; increased investment in national and international research; and changes in subsidies, pricing policies and non-market barriers to trade.

Stewart Wallis, International Director, Oxfam GB, identified women's empowerment, trade reform and conflict as three areas especially relevant to the work of Oxfam. On women's empowerment, he highlighted the need for this to be supported at all levels, particularly in the area of girls' education. On trade, he indicated that harnessing trade for employment, income and food security meant reforming trade rules and creating a development agenda within market liberalization efforts to protect the most vulnerable. In the area of conflict, he stated that governments should be held accountable for dealing in and profiteering from small arms.

Mercy Karanja, Chief Executive of Kenya's National Farmers Union, outlined Kenyan farmers' priorities, which include access to markets and resources such as land and water, cost-saving technologies, including biotechnology, and finance. She called for policies to reduce farmers' reliance on favorable weather for food production, increased farmer-farmer cooperation between North and South, and assistance to prevent conflict in rural areas.

Klaus Leisinger, Executive Director of Novartis Foundation for Sustainable Development, supported prioritizing good governance, constructive cooperation, and research and technology transfer. He expressed concern over lack of political will, and advocated farmer empowerment and participation, landholding law reforms, and a reduction in market protectionism. He encouraged research in biotechnology and alternative agricultural practices, stressing the value of cooperation between actors and of competition between ideas. Addressing the issue of public-private partnerships, he urged integration of resources other than finance from companies, and greater investment in public research.

In the subsequent discussion, participants discussed priorities for action on the basis of those set out in IFPRI's draft policy paper. Participants stressed a number of areas, including: forging political will for action through informed advocacy on unifying causes, such as debt relief; ensuring good governance; building farmers' collective capacity for action; alleviating domestic market bottlenecks; and involving the media more effectively. They also urged revision of the list of priorities to better reflect links to the hungry and poor, and to demonstrate their relevance to international development targets. Researchers were urged to engage in public debates and to communicate with opinion leaders and policy makers on priorities for action. Ian Johnson called for the development of institutions that guide markets, as markets are short term and not focused on equity and public goods. In his closing remarks, Chair Bezanson stressed that tangible deliverables can be used to build a constituency and increase the momentum to ending hunger.

Using a digital instant voting system, participants indicated which of the seven policy action areas included in the IFPRI draft paper they attached the greatest importance to. The poll showed a preference for prioritizing investment in human resources, followed closely by the promotion of good governance. Improving markets, infrastructure and institutions was the third most popular area for action.

#### **WHOSE RESPONSIBILITY IS IT TO END HUNGER?**

Joachim von Braun, Director of the Center for Development Research, ZEF-Bonn, chaired this session. Noting that participants

had expressed clear priorities and offered many suggestions on how to organize action, he called on them to explore who could best and most appropriately take responsibility to end hunger.

Robert Paarlberg, Professor of Political Science, Wellesley College, and Associate at the Weatherhead Center for International Affairs, Harvard University, recalled the advice to "think globally, act locally," observing that circumstances of hunger often result from a breakdown of local systems due to natural disasters or government failures. He said it would be misleading only to think globally about hunger, since not all import and local prices are dependent on the world food market, and international institutions have often failed in their efforts to assist countries. Rather, he advocated thinking locally and acting nationally, urging governments to take responsibility for financial assistance to rural areas and for good governance.

Klemens van de Sand, Assistant President, Project Management Department of the International Fund for Agricultural Development, said national governments bear the primary responsibility for ending hunger by providing public goods. He suggested that governments may fail in this regard due to lack of political will, which he said was more of a problem than lack of resources or capacity. Declaring that political will is generated by pressure from the poor people affected by hunger, who have the need and the will to seek change, he said this group must be able to organize itself to secure its aims. This requires a partnership based on a new approach to development policy that focuses on restoring poor people's dignity and rights. He said the poor should be empowered through local institutions serving their interests, such as farmers associations, locally-based savings and credit organizations, and self-employed women's associations. Development partners should help "enable the enablers" in achieving food security. He urged participants to demand governments to incorporate food security into the poverty reduction strategy agenda.

Julian Gonsalves, former Vice President for Programme at the International Institute for Rural Reconstruction, drew attention to a significant amount of underutilized research, highlighting a divide between research and its application. He underscored civil society's role in pressing the private sector to make technology available to the poor, as has been achieved in the case of AIDS medicines. He also advocated a shift toward farmer-led and people-centered approaches, and stated that local, accountable and representative institutions are at the core of addressing poverty and hunger.

Usha Barwale Zehr, Joint Director of Research, Mahyco Seeds Co. Ltd., underscored the fundamental right to food and stressed the responsibility of national governments to end hunger. She noted differences in productivity within countries, and stressed the need for new types of partnerships to ensure food security. She further advocated that information on the causes of hunger be made available at the local level so that local people are empowered to address hunger themselves.

Harris Mule, Executive Director, Top Investment and Management Services, and former Permanent Secretary of Kenya's Ministry of Finance, stressed the responsibility, but disempowerment, of both small-scale farmers and governments in ending hunger. He highlighted the roles of civil society and the private sector and underscored the responsibility of the international community to create a level playing field through the WTO and other relevant fora.

In the subsequent discussion, participants identified responsible groups, including: international financial institutions; national governments that exploit the poor; farmers and local governments; the public in affluent countries; and the media. One participant stressed the need for this conference to provide guidance on how participants can best advance food security among their respective constituencies. Another underscored competing needs for fieldwork and advocacy among NGOs. Participants also urged local partnerships between relevant stakeholders, and expressed support for a suggestion that an annual "food security index" be established to

gauge food security country-by-country. Some also expressed support for changing the focus from needs-based to rights-based approaches to alleviating hunger. One participant pointed to the success of the Green Revolution, and noted that problems are more sociological than technical. Another concluded that IFPRI should influence the upcoming World Food Summit's five-year review through the knowledge and data it has gathered.

Summing-up the discussions and presentations, Chair Joachim von Braun stated that countries should mobilize national networks and lobby to fight poverty and hunger. On connecting priorities to responsibilities for action, he said empowerment requires strengthening democracy and public policy reforms such as decentralization, and noted that such actions involve different groups of actors and alliances. He also emphasized the importance of continued action at the international level, and urged those at the local level to exploit opportunities offered by new communications technologies.

### CONCLUDING REMARKS

Late Thursday afternoon, 6 September, Per Pinstrup-Andersen, IFPRI Director General, presented his concluding remarks on the conference. Recalling the conference's three objectives of knowledge exchange, breaking complacency and catalyzing action, he stated that this had been an extremely productive meeting.

Summarizing the discussions of the past three days, he drew attention to consensus that efforts to attain food security for all by 2020 must be given a far higher priority, and took note of agreement that lack of political will forms a major barrier to reform. He noted that some speakers had urged empowerment of the poor to advocate their own interests as being critical to building political momentum. Some participants had suggested that even with political will, however, lack of capacity remained a significant obstacle.

He said the conference had made it clear that achieving the 1996 World Food Summit's goal for 2015 and the vision of food security for all by 2020 depended on three prerequisites: pro-poor economic growth; empowerment of the poor; and the effective provision of public goods. Observing that the key aim of both is to bring people out of poverty in any way possible, he noted that the fact that 75% of poor people live in rural areas means agriculture was an important area of focus.

Commenting on the discussions on technological means for increasing food production, Per Pinstrup-Andersen drew attention to speeches and comments suggesting that agroecological, conventional and biotechnological approaches all worked, and suggested this meant it was time to stop arguing about which approach is best and focus instead on designing an appropriate solution based on all available technological knowledge. He also took note of comments on the need to move to "full costing," taking into account elements such as agriculture's damage to the environment.

On globalization, he said the key question should not be whether it is good or bad, but how it can be targeted and accompanied by policy reform so it benefits the poor. He highlighted other lessons from this conference, including that: industrialized countries' policies and actions can have a profound and in some cases damaging effect on the developing world and on food security; developing countries should reform national policies so changes such as trade liberalization reach and benefit the poor; agriculture is the largest water user, meaning serious efforts should be made to increase efficiency in this area; sustainable food security can only be achieved in a conflict-free environment; effective anti-corruption laws should be applied internationally; women's empowerment is essential; multi-stakeholder cooperation and collaboration is invaluable; and the intended beneficiaries of assistance should play an integral role in designing relevant policies. He also took note of discussions on the future of small-scale farming and the impact of HIV/AIDS on food security.

Per Pinstrup-Andersen said participants must take the food security message to high-level decision makers who can transmit it to other fora and take appropriate action, and drew attention to the

creation of a multi-stakeholder "Bonn Food Policy Circle" to convey this message to a wider audience. He concluded by thanking the cosponsors, advisory panel, German Government, IFPRI colleagues, chairs, presenters and participants for their roles in producing what had been an extremely productive conference.

Geoff Miller, Chair of IFPRI's Board of Trustees, expressed the hope that every participant would depart from Bonn with their commitment and knowledge strengthened and their relationship with IFPRI deepened. Noting his own background in trade issues, he drew attention to commitments made at the conference by several high-level speakers to resolve the problem of industrialized countries' agricultural subsidies at the next WTO trade round. Suggesting that every individual participant can make a significant difference to the cause of food security if they are sufficiently determined, he encouraged participants to identify specific, practical actions they could take to further the cause of achieving food security for all. He thanked Per Pinstrup-Andersen for his outstanding work and achievements, and declared the conference over at 6:25 pm.

### THINGS TO LOOK FOR

#### SPECIAL SESSION OF THE UN GENERAL ASSEMBLY

**ON CHILDREN:** The Special Session of the United Nations General Assembly on Children will take place from 19-21 September 2001 at UN Headquarters in New York. This meeting is being held ten years after the World Summit for Children. For more information contact: Secretariat for the Special Session on Children, UNICEF House, 3 UN Plaza, New York NY 10017, USA; Internet: <http://www.unicef.org/specialsession/>

#### WTO COUNCIL FOR TRADE-RELATED ASPECTS OF

**INTELLECTUAL PROPERTY RIGHTS MEETINGS:** During 2001, the TRIPs Council will meet from 20-21 September and 26-29 November in Geneva, Switzerland. For more information contact: Peter Ungphakorn; tel: +41-22-739-5412; e-mail: [peter.ungphakorn@wto.org](mailto:peter.ungphakorn@wto.org); Internet: [http://www.wto.org/english/tratop\\_e/trips\\_e/trips\\_e.htm](http://www.wto.org/english/tratop_e/trips_e/trips_e.htm)

#### OPEN-ENDED MEETING OF EXPERTS ON A COMPLIANCE REGIME UNDER THE CARTAGENA PROTOCOL

**ON BIOSAFETY:** This meeting will take place from 26-28 September 2001 in Nairobi, Kenya, prior to the Second Meeting of the Intergovernmental Committee for the Cartagena Protocol. Experts will convene to review the synthesis report prepared by the Executive Secretary. For more information visit: <http://www.biodiv.org/biosafety/mtg-te-cmpl.asp>

#### SECOND MEETING OF THE INTERGOVERNMENTAL

**COMMITTEE FOR THE CARTAGENA PROTOCOL:** This meeting will take place in Nairobi, Kenya, from 1-5 October 2001. For more information contact: CBD Secretariat, Montreal, Canada: tel: +1-514-288-2220; fax: +1-514-288-6588; e-mail: [secretariat@biodiv.org](mailto:secretariat@biodiv.org); Internet: <http://www.biodiv.org>

#### WORLD CONGRESS ON CONSERVATION AGRICULTURE - A WORLDWIDE CHALLENGE:

This congress will take place from 1-5 October 2001 in Madrid, Spain. For more information contact: Armando Martinez, Institute for Sustainable Agriculture, Córdoba, Spain; tel: +34-957-760797; e-mail: [conservation.agriculture@ecaf.org](mailto:conservation.agriculture@ecaf.org); Internet: <http://www.ecaf.org/English/englis.htm>

#### FIFTH SESSION OF THE CONFERENCE OF THE PARTIES TO THE UN CONVENTION TO COMBAT

**DESERTIFICATION:** COP-5 is scheduled to meet from 1-12 October 2001 in Geneva, Switzerland. For more information contact: UNCCD Secretariat; tel: +49-228-815-2800; e-mail: [secretariat@unccd.int](mailto:secretariat@unccd.int); Internet: <http://www.unccd.int/cop/cop5/menu.php>

#### FIRST UNEP/GEF GLOBAL INTERNATIONAL WATERS ASSESSMENT (GIWA) GENERAL ASSEMBLY:

This General Assembly of the GIWA project will take place from 9-

11 October 2001 in Kalmar, Sweden. For more information contact: GIWA Coordination Office, Kalmar; tel: +46-480-447350; fax: +46-480-447355; Internet: <http://www.giwa.net>

**INTERNATIONAL CONFERENCE ON BIOTECHNOLOGY AND SUSTAINABLE DEVELOPMENT:** This conference will be held from 15-17 October 2001 in Alexandria, Egypt. It is targeted at both government and civil society representatives, scientists and the media. The conference will focus on scientific, ethical, and safety issues as well as the regulatory, intellectual property rights and trade and economic issues in the biotechnology debate. It will highlight a Southern perspective. For more information contact: Ismail Serageldin, Programme Committee Chair, International Center for Agricultural Research in the Dry Areas (ICARDA) Cairo office; tel: +20-2-572-4358; e-mail: [icarda-cairo@cgiar.org](mailto:icarda-cairo@cgiar.org); Internet: <http://www.egyptbiotech2001.com>

**INTERNATIONAL WATER ASSOCIATION (IWA) 2001 WORLD WATER CONGRESS:** This conference, which is expected to attract over 3000 participants, will take place from 15-19 October 2001 in Berlin, Germany. Discussions will focus on water economics and politics and enabling efficient water management. For more information visit: <http://www.iwa-berlin.de>

**FIRST SESSION OF THE AD HOC OPEN-ENDED WORKING GROUP ON ACCESS AND BENEFIT-SHARING:** This meeting will be held in Bonn from 22-26 October 2001. For more information contact: CBD Secretariat, Montreal, Canada; tel: +1-514-288-2220; fax: +1-514-288-6588; e-mail: [secretariat@biodiv.org](mailto:secretariat@biodiv.org); Internet: <http://www.biodiv.org>

**SEVENTH CONFERENCE OF THE PARTIES TO THE UN FRAMEWORK CONVENTION ON CLIMATE CHANGE:** COP-7 will take place from 29 October - 9 November 2001, in Marrakech, Morocco. For more information contact: the UNFCCC Secretariat, Bonn, Germany; tel: +49-228-815-1000; e-mail: [secretariat@unfccc.int](mailto:secretariat@unfccc.int); Internet: <http://www.unfccc.int/>

**FAO GOVERNING BODIES:** Sessions of the FAO Council will be held from 30 October - 1 November and 14 November 2001, in Rome. The 31st FAO Conference will take place from 2-13 November 2001 in Rome. For more information on specific meetings, visit: <http://www.fao.org/events/index.asp>

**WORLD FOOD SUMMIT - FIVE YEARS LATER:** This meeting is scheduled for 5-9 November 2001 at a venue to be decided. Participants will review progress made towards the 1996 World Food Summit goal of reducing the number of people who suffer from hunger by half by 2015, and consider ways to accelerate the process. For more information contact: Mieko Ikegame, FAO; tel: +39-06/5705-4706; e-mail: [meiko.ikegame@fao.org](mailto:meiko.ikegame@fao.org); Internet: <http://www.fao.org/news/2001/010304-e.htm>

**WTO FOURTH MINISTERIAL MEETING:** The World Trade Organization's fourth ministerial meeting will be held in Doha, Qatar from 9-13 November 2001. For more information contact: WTO; tel: +41-22-739-5111; e-mail: [enquiries@wto.org](mailto:enquiries@wto.org); Internet: [http://www.wto.org/english/news\\_e/meets.doc](http://www.wto.org/english/news_e/meets.doc)

**WORKSHOP ON RISK MONITORING AND PUBLIC PERCEPTION OF BIOTECHNOLOGY:** This workshop will be held from 12-16 November 2001 in Caracas, Venezuela. It will focus on biosafety and risk assessment, risk monitoring of GMOs, and public perception. For more information contact: Efrain Salazar Yamarte, Centro Nacional de Investigaciones Agropecuarias, Venezuela; tel: +58-43-471066; e-mail: [efra63@hotmail.com](mailto:efra63@hotmail.com); Internet: <http://www.icgeb.trieste.it/TRAINING/CRS01/crsps01.htm>

**WTO SUB-COMMITTEE ON LEAST DEVELOPED COUNTRIES:** This sub-committee will meet from 27-28 November 2001. For more information contact: WTO; tel: +41-22-739-5111; e-mail: [enquiries@wto.org](mailto:enquiries@wto.org); Internet: [http://www.wto.org/english/news\\_e/meets.doc](http://www.wto.org/english/news_e/meets.doc)

**INTERNATIONAL CONFERENCE ON FRESHWATER:** This conference, hosted by the German Federal Environment Ministry and the German Federal Ministry for Development Coop-

eration, will be held from 3-7 December 2001 in Bonn, Germany. It will serve as preparation for the World Summit on Sustainable Development in Johannesburg, South Africa, in 2002, and will review Chapter 18 of Agenda 21 focusing on freshwater issues. For more information contact: Angelika Wilcke, Conference Secretariat; tel: +49-228-28046-57; e-mail: [info@water-2001.de](mailto:info@water-2001.de); Internet: <http://www.water-2001.de>

**WIPO SECOND SESSION OF THE INTERGOVERNMENTAL COMMITTEE ON INTELLECTUAL PROPERTY AND GENETIC RESOURCES, TRADITIONAL KNOWLEDGE AND FOLKLORE:** This session will be held in Geneva from 10-12 December 2001. Participants will consider a variety of issues, including access to genetic resources and benefit-sharing, and protection of traditional knowledge, creativity and folklore. For more information contact: Francis Gurry, Assistant Director-General of the World Intellectual Property Organization; tel: +41-22-338-9428, e-mail: [francis.gurry@wipo.int](mailto:francis.gurry@wipo.int)

**INTERNATIONAL CONFERENCE ON IMPACTS OF AGRICULTURAL RESEARCH:** This international conference will take place from 4-7 February 2002, in San José, Costa Rica, and is being organized by the International Centre for the Improvement of Maize and Wheat (CIMMYT), in partnership with the Standing Panel on Impact Assessment of the CGIAR's Technical Advisory Committee. The conference will assess the impacts of agricultural research and development and examine why impact assessment research has not had more of an impact. For more information contact: Prabhu Pingali, Director of CIMMYT's Economics Programme, Mexico City, Mexico; tel: +52-5-804-2004; e-mail: [impacts@cgiar.org](mailto:impacts@cgiar.org); Internet: <http://www.cimmyt.org/research/economics/impacts>

**INTERNATIONAL CONFERENCE ON FINANCING FOR DEVELOPMENT:** The UN International Conference on Financing for Development will be held from 18-22 March 2002 in Monterrey, Mexico. It will bring together high-level representatives from governments, the United Nations, and other leading international trade, finance and development-related organizations. The Preparatory Committee will meet from 15-19 October 2001 in New York. For more information contact: Financing for Development Coordinating Secretariat, United Nations Headquarters, New York, Harris Gleckman, tel: +1-212-963-4690; e-mail: [gleckman@un.org](mailto:gleckman@un.org) or Federica Pietracci, tel: +1-212-963-8497; e-mail: [pietracci@un.org](mailto:pietracci@un.org); Internet: <http://www.un.org/esa/ffd>

**SIXTH CONFERENCE OF THE PARTIES TO THE CONVENTION ON BIODIVERSITY/CARTAGENA PROTOCOL MOP-1:** CBD COP-6 will take place in The Hague, the Netherlands, from 8-26 April 2002. This gathering is also expected to serve as the First Meeting of the Parties (MOP-1) to the Cartagena Protocol. CBD Secretariat, Montreal, Canada; tel: +1-514-288-2220; fax: +1-514-288-6588; e-mail: [secretariat@biodiv.org](mailto:secretariat@biodiv.org); Internet: <http://www.biodiv.org>

**WORLD SUMMIT ON SUSTAINABLE DEVELOPMENT:** The World Summit on Sustainable Development will take place in Johannesburg, South Africa, from 2-11 September 2002. It is being preceded by a variety of preparatory meetings at the international, regional, and sub-regional levels. For more information contact: Andrey Vasilyev, DESA, New York; tel: +1-212-963-5949; e-mail: [vasilyev@un.org](mailto:vasilyev@un.org); Major groups contact: Zehra Aydin-Sipos, DESA; tel: +1-212-963-8811; e-mail: [aydin@un.org](mailto:aydin@un.org); Internet: <http://www.johannesburgsummit.org/>

**INTERNATIONAL CONFERENCE ON SUSTAINABLE AGRICULTURE FOR DRY AREAS FOR THE SECOND MILLENNIUM:** This conference will be held from 15-19 September 2002, in Shijiazhuang, China. For more information contact: Catherine Vachon, Lethbridge Research Center, Agriculture and Agri-Food Canada; tel: +1-403-317-2257; fax: +1-403-382-3156; Internet: <http://res2.agriculture.ca/lethbridge/hebei/coindex.htm>