

Historic Ministerial Conference Aims To Raise Agricultural Productivity To Reduce Hunger

By Christian Foster, Patricia Wetmore and Linda Habenstreit

USDA in concert with USAID (U.S. Agency for International Development) and the U.S. Department of State, held the first-ever Ministerial Conference and Expo on Agricultural Science and Technology in Sacramento, Calif., in June.

This historic conference was one of the largest gatherings ever assembled to

discuss the critical role science and technology can play in raising agricultural productivity in developing countries in an environmentally sustainable way. Agriculture Secretary Ann M. Veneman invited ministers of agriculture, science and technology and environment or their designees from virtually every country in the world to attend.

Foreign delegates from 117 developing countries, economies in transition and developed countries accepted the invitation to exchange information with one another and with representatives from the U.S. government, the private sector, academia, research institutes, foundations and

non-governmental and international organizations.

Secretary Announces Conference at World Food Summit

In 1996, representatives from more than 180 countries from around the world gathered in Rome for the World Food Summit. At that meeting, the international community set an ambitious goal of reducing global hunger by half by 2015. In June 2002 in Rome, at the World Food Summit: *Five Years Later*, these same countries concluded that the efforts to date fell far short of what was needed to achieve this goal.



Only one-third of countries had seen a reduction in the number of hungry. Other countries either showed no improvement or their situations had worsened. Some 800 million people, mostly in rural areas, still suffered from hunger and malnutrition. This situation is expected to worsen as the world's population increases.

To address this urgent problem, Secretary Veneman, who headed the U.S. delegation, proposed focusing on three priorities in partnership with other donors and developing countries:

- reducing hunger by increasing agricultural productivity,
- ending famine and
- improving nutrition.

As part of that effort, Secretary Veneman announced that she would host a ministerial conference on agricultural science and technology. She said, "Achieving needed gains in global agricultural productivity and better food distribution will require broader dissemination, adoption and acceptance of existing and new technologies. Technology is part of the solution to global food security. We want to encourage countries to work together to take advantage of the opportunities it presents."



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Over Three Days, Conference Accomplishes Much

The conference opened with a videotaped welcome by U.S. President George W. Bush and a keynote speech by Secretary Veneman. These remarks were followed by presentations by Dr. John Marburger, science adviser to the President and director of the White House Office of Science and Technology Policy, and Andrew S. Natsios, USAID administrator. Ministers from Uganda, the Philippines and the Republic of Georgia, and Mexico's under secretary of agribusiness development addressed the conferees as well. They discussed:

- challenges facing low-income African countries,
- need for acceptance and dissemination of new technologies to the poor,
- examples of public-private partnerships that have overcome technological challenges and



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- integrating producers from economies in transition into the global economy.

At a press conference following the opening plenary, the Philippine Secretary of Agriculture Luis Lorenzo, Jr., addressed reporters' questions about the European Union's moratorium on biotechnology products and its effect on developing countries' acceptance of biotechnology. Secretary Lorenzo said, "... If we felt we had to have [a] 100-percent risk-free

Ministerial Conference and Expo Facts

- **Countries represented**—117
- **Foreign delegates (including ministers, international organization representatives and some speakers)**—400
- **U.S. delegates (including U.S. government, private-sector and non-governmental organization representatives, academics and speakers)**—150
- **Other participants (Expo exhibitors, field tour hosts, U.S. and foreign media and USDA facilitators)**—375
- **Media outlets represented**—66, with 135 national and international print, radio and television reporters from Australia, China, Nigeria, Philippines, Switzerland, Ukraine, United Kingdom and the United States
- **Plenary sessions**—two, with nine opening speakers and five closing speakers
- **Breakout sessions**—18, with nearly 90 speakers and moderators
- **Luncheons**—two, with two keynote

speakers: Dr. Rita Colwell, director of the National Science Foundation, and Dr. Norman Borlaug, Nobel laureate and president, Sasakawa Africa Foundation

- **Expo**—nearly 60 private firms and public organizations exhibiting
- **Field tours**—12, with nearly 175 foreign delegates from more than 77 countries
- **Conference report**—"21st Century Agriculture: A Critical Role for Science and Technology" Printed copies can be ordered from the National Technical Information Service at 1-800-553-6847 or (703) 605-6000. Request order number PB-2003-105830. The cost is \$25.50. Electronic copies are available at: www.fas.usda.gov/icd/stconf/pubs/scitech2003/index.htm
- **Conference Web site**—www.fas.usda.gov/icd/stconf/conf_main.htm



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environment, we would not have had the last 200 years of tremendous advancements that have helped humanity.”

At the closing plenary, developing country ministers from Afghanistan, Mali and Panama discussed the positive influence the conference had on setting priorities for policymaking and research to strengthen technological development and dissemination.

In summarizing conference results, Secretary Veneman noted that several themes emerged, which fit into four broad categories:

- Make applied research and technology accessible to farmers.
- Revitalize local and national research capacities.
- Strengthen and promote public-private partnerships.
- Give special attention to water quality and availability.

In between plenary sessions, delegates had the opportunity to attend technical breakout sessions clustered around three areas:

- increasing access to technologies: options for policymakers;
- agricultural production, processing and marketing technologies; and

- overcoming the technology divide in developing countries: integrating policy and science.

Nearly 90 speakers in 18 sessions discussed a wide spectrum of technologies available to improve productivity on both small- and large-scale farms using conventional or emerging methods. Conferees also examined the relationship between regulatory practices and innovation, and the policy and institutional frameworks needed to facilitate technology transfer and indigenous research and development.

Luncheon speaker Dr. Rita Colwell,



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director of the National Science Foundation, stressed that international cooperation in emerging genomics research will play a central role in ending hunger and promoting sustainable agriculture. She suggested that “twinning” or partnering among research institutions in the developing and developed world could make scarce resources go further.

Dr. Norman Borlaug, Nobel laureate and president, Sasakawa Africa Foundation, posited that we must transition from the “Green Revolution” to the “Gene Revolution” to produce sufficient

supplies of food to sustain the world’s continuing population growth. Dr. Borlaug challenged ministers from developing countries to duplicate the strong but controversial roles that India and Pakistan played in accelerating the Green Revolution by having the courage to find new solutions, such as biotechnology, and to base their decisions on scientific evidence rather than rhetoric. Africa cannot afford to miss this second revolution, he said.

On the final day of the conference, nearly 175 foreign delegates (including about 40 ministers) from more than 77 countries participated in field tours to observe first-hand the agricultural technologies used by California producers. Tours featured facilities producing and processing dairy products; breeding and milling rice; researching, managing and producing wine grapes; analyzing fruits and vegetables; detecting and identifying animal diseases; and developing new vegetable varieties.

Several business contacts and potential technology transfer partnerships have already been formed between delegates and host representatives, one of which was



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the University of California at Davis. Ministers learned how accessible and affordable certain technologies are, such as drip irrigation for small-scale producers.

In addition, an agricultural technology expo with close to 60 private and public sector exhibits ran in conjunction with the conference. Exhibits highlighted technology that could help developing countries raise agricultural productivity in an environmentally sustainable way and facilitate technology transfer.

Delegates appeared to be most interested in technologies related to precision farming, irrigation, biotechnology, irradiation, satellite imaging, water purification and organics. One private sector exhibitor said his company had made more contacts with senior policymakers from developing countries in three days than had been made in the previous year.

A number of delegates and companies displaying at the expo began discussions that are expected to lead to new business deals. For example, at the close of the conference an Illinois-based water conservation company announced a partnership with Namibia to reduce evaporation from reservoirs in that country.



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Conference Generates Enthusiasm, Action

Secretary Veneman summarized the event by saying, "The information presented here has been outstanding and will truly help ministers continue efforts to increase productivity in their agriculture sectors."

Conferees were similarly enthusiastic. One of the attendees said the conference was pertinent, informative, inspiring and "the most important workshop I've ever been to in my life." Another said, "The journey to California is the longest I have



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made in my life, but it is also the most rewarding. What I have gained here is more than I gained in four years in the classroom."

As Secretary Veneman pointed out in a media briefing after the conference ended, "...The interaction of the delegates... may very well be one of the most important outcomes here." Delegates from developing countries were able to meet with one another, in many cases for the first time, and discuss what works, what does not and how they might expand their own ability to produce.



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Immediate results from the conference included:

- Countries and international organizations have offered to host conferences on technologies, including biotechnology.
- Some participants told ministerial organizers that as a result of discussions and presentations, they have revised their opinions, and now hold more positive views of the possibilities of biotechnology as a tool to address hunger. Interest ranged from requests for more information or help with improving the evaluation of biotechnology products, to support for new laws paving the way for biotech crop commercialization, to field-testing biotech cassava in several African nations.

The tremendous level of energy and enthusiasm exhibited by delegates for science and technology to deliver solutions resulted in several priorities:

- Improve developing country understanding of the broad range of conventional and emerging agricultural technologies.
- Make applied research and technology accessible to farmers.



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- Strengthen market infrastructure.
- Support indigenous research in developing countries.
- Promote public-private partnerships.
- Recognize that water quality and water availability are special problems deserving special attention.
- Facilitate the benefits of technology through supportive policies and regulations.
- Emphasize the need to integrate programs that address the HIV/AIDS crisis.

Strategies for the Future

Officials at USDA, the Department of State and USAID have begun to develop a joint strategy for moving forward. Numerous developing country ministers who attended the conference have agreed

In Their Own Words

U.S. President George W. Bush—“By combining new technology and good policy, all the nations of the world can work together to increase living standards. Your participation in this conference shows that your countries share in this vision. I’m confident that many lives will be improved by the work you do here.”

U.S. Agriculture Secretary Ann M. Veneman—“Technology alone is not a solution. It is merely a tool and without supportive policies and regulations its benefits will not be fully realized. Policies that promote free markets and good governance produce economic growth. An open trading system is also vital. It provides greater market access, attracts investment, stimulates growth and contributes to food security.”

Dr. John Marburger, Science Advisor to the President and Director of the White House Office of Science and Technology Policy—“Getting what we know into the

hands of those who need the knowledge is as great a challenge as scientific discovery and innovation.”

Andrew S. Natsios, Administrator of the U.S. Agency for International Development—“Expanding farmers’ commercial opportunities is a critical element for ensuring adequate returns. We believe, in AID, we must always make sure that agricultural scientists work with agricultural economists. If you separate the two, the improvements we all seek in productivity will fail.”

Wilberforce Ksamba Mugerwa, Minister of Agriculture, Animal Industry and Fisheries, Republic of Uganda—“Developing countries, including Uganda, cannot afford to be left behind in this technological advance. We need to embrace biotechnology and other sciences, not just for curiosity but for survival of our nation in a globalized and liberalized world. We need to increase productivity. [We] increase productivity through adopting such technologies, which can permit sustainable production.”

Luis Lorenzo, Jr., Secretary of Agriculture, Philippines—“Today we stand at the gate not to, but of, the future ... never in the history of man has his stewardship of this planet been so close to delivering permanent solutions to its problems.”

David Kirvalidze, Minister of Food and Agriculture, Republic of Georgia—“Overcoming these problems will not be easy, but great care is needed in order not to create a backlash of public opinion against technology transfer initiatives and to increase the awareness of the benefits of public-private partnerships...”

Roberto Newell Garcia, Under Secretary of Agribusiness Development, Secretariat of Agriculture, Livestock, Rural Development, Fisheries and Food, Mexico—“However, technological change is not solely limited to the hard technologies that are produced in university laboratories or in the R&D areas of multi-national corporations. Other softer technologies are perhaps making a bigger

to partner with USDA to keep the momentum going.

Recommendations and activities under study or already begun include:

- Hold in-depth briefings on conference outcomes. A briefing for Ambassadors from foreign embassies in Washington, DC, by year end.
- Sponsor special events to reinforce the themes and priorities of this conference at meetings of international and regional bodies. A Central American regional conference is now scheduled to take place in Costa Rica in the spring of 2004. A regional conference for Africa is planned for mid-2004.
- Reinforce priorities and follow-up activities with developing countries through U.S. embassies.
- Strengthen ties with international and

regional organizations to reexamine priorities, mobilize resources to raise agricultural productivity and assist with capacity building to promote technology transfer and development. ■

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difference.... The adoption of management technologies, marketing, new financial products might actually be much more strongly correlated with economic performance improvements than any other technology that we might point to.... It is soft technology that is gradually taking hold in our producers and changing their habits and behaviors and, with that, their performance in markets."

Dr. Rita Colwell, Director, National Science Foundation—"If we are serious about making hunger and famine a thing of the past, we must use every tool we can develop.... Plant genomics is a tool that holds fantastic potential to contribute to the well-being of humanity and to the planet we call home. This international conference is both a testament to the urgency of hunger and to the shared commitment to promote a new sustainable agriculture."

Dr. Norman Borlaug, Nobel Laureate and President, Sasakawa Africa Foundation—"When I was born 89 years ago, world popula-

tion was about 1.6 billion people. Today we're at 6.2 billion and we're adding 80 million more every year. That's the problem that all of us must address in order to produce not only enough food to help them to survive, but at the same time to improve their nutrition and standard of living in general.... The world has the technology, either available or well advanced in the research pipeline, to feed 10 billion people.... Extending the Green Revolution to the Gene Revolution will provide a better diet at lower prices to many more food-insecure people."

Yusuf Nuristani, Minister of Irrigation, Water Resources and Environment, Afghanistan—"This conference has been invaluable. We...will attempt to take back from here technologies, ideas and hopes."

Seydou Traore, Minister of Agriculture, Livestock and Fisheries, Mali—"The private sector and the public sector should seize the results of this conference—collaborate and innovate to assure peace to the world, which

is indispensable to development and to commerce."

Lynette Stanzola, Minister of Agriculture and Livestock Development, Panama—"It's necessary to design national and international information systems to facilitate the process of integrating information throughout our hemisphere and to overcome institutional differences."

U.S. Agriculture Secretary Ann M. Veneman—"While our stated goal is to reduce by half the 800 million hungry people around the world, even one hungry person is unacceptable. That one person is someone's child, or mother, or father. It is one person who is denied the sustenance they need to be a productive member of society. It is one person who is prevented from meeting their full potential. Behind our efforts here, there are a lot of statistics, but there is also a human face.... We must always remember that human face."