



**CGIAR Annual General Meeting
Tuesday, December 4, 2007**

**STAKEHOLDER MEETING: SCIENCE FORUM
HARNESSING ADVANCES IN SCIENCE
FOR SUSTAINABLE AGRICULTURE
Beijing International Convention Center (BICC)
Level 2, Convention Hall 2**

Objectives of the forum:

1. Reflect on major scientific achievements in fostering sustainable agriculture.
2. Examine recent developments and advances in science that hold significant promise for enhancing the effectiveness of agricultural research.
3. Explore strategies by which CGIAR researchers can incorporate the concepts, tools, and methods of new science into their research while offering opportunities to colleagues from the scientific community-at-large to contribute to sustainable agriculture and its multiple roles.

Opening Plenary, Level 2, Convention Hall 2

0830 Opening Remarks - Rudy Rabbinge, CGIAR Science Council Chair

0835 Welcome – Katherine Sierra, CGIAR Chair

Presentations:

0845 Overview of the World Food Situation, Joachim von Braun, Director General, IFPRI

Abstract

New driving forces, such as climate change, biofuels production and evolving consumer demands, are drastically altering the world food situation, with worrying implications for the poor. As a result of surging demand and competing feed, food and fuel uses for basic cereals, their prices have increased in recent years and appear unlikely to fall any time soon. Global climate change heightens the risk that producers, especially in low-income countries, will be unable to keep pace with rising food demand. The resulting volatility in food prices will negatively impact both farmers and consumers. Growing demand for high-value commodities, such as vegetables, fruits and dairy products, offers farmers new opportunities to boost incomes, but they face high barriers to market entry.

Higher prices for cereals will obligate poor consumers to shift to less balanced diets, with adverse health impacts.

To avert this “business-as-usual” scenario, which would mean greater misery for the world’s poorest people, policy makers urgently need to pursue six main courses of action:

1. Elimination of trade barriers in developed countries to facilitate more flexible responses to price volatility;
2. Greater investment in rural infrastructure and agricultural input supply, so markets and producers can respond more easily to price signals;
3. Acceleration of international agricultural research to strengthen farmers capacity to respond to higher food demand;
4. Strengthening social safety nets where people are at risk because not enough food is available and their access to food is limited;
5. Strong emphasis on coping with the impacts of climate change on national and international policy agendas;
6. Greater private and public investments that contribute to pro-poor economic growth.

0920 World Development Report 2008: Agriculture for Development, Derek Byerlee, Sr. Adviser, World Bank

Abstract

The 2008 World Development Report (WDR), “Agriculture for Development,” calls for greater investment in agriculture in developing countries and warns that the sector must be placed at the center of the development agenda if the Millennium Development Goal of halving extreme poverty and hunger by 2015 is to be realized. The report says the agricultural and rural sectors have suffered from neglect and underinvestment over the past 20 years. While 75 percent of the world’s poor live in rural areas, a mere 4 percent of official development assistance goes to agriculture in developing countries. In Sub-Saharan Africa, a region heavily reliant on agriculture for overall growth, public spending for farming is also only 4 percent of total government spending and the sector is still taxed at relatively high levels.

According to the WDR, for the poorest people, GDP growth originating in agriculture is about four times more effective in reducing poverty than GDP growth originating outside the sector. The report argues that agriculture can offer pathways out of poverty if efforts are made to increase productivity in the staple foods sector; connect smallholders to rapidly expanding high-value horticulture, poultry, aquaculture, as well as dairy markets; and generate jobs in the rural nonfarm economy. The report also warns global food supplies are under pressure from expanding demand for food, feed, and biofuels; the rising price of energy; and increasing land and water scarcity; as well as the effects of climate change. This in turn is contributing to uncertainty about future food prices. The report recommends measures to achieve more sustainable production systems and outlines incentives to protect the environment.

0945 Agricultural Research in China and Its Impact, Zhai Huqu, President, CAAS

Abstract

In the last three decades, Chinese agriculture has experienced profound changes. Agricultural science and technology have played an important role in transforming Chinese agriculture in terms of productivity and quality. Based on the analysis of the challenges faced for agricultural research in China, the paper presents the ten major latest advances for agricultural research in China and outlines newly developed priority areas for international cooperation, development strategies for agricultural research in China.

1010 New Science for Agriculture: Challenges and Opportunities, Hans Herren, Member, CGIAR Science Council

Abstract

Agriculture and its supporting science will be facing a number of challenges in the decades ahead, new and old, for which there is a need to learn from the experiences of past practices and identify new opportunities to push the boundaries in science, technology and knowledge for agricultural development. New challenges are posed with addressing climate change and sustainability needs; older challenges that are as relevant as ever relate to feeding growing populations, while ensuring equity and food security.

Which new realms of knowledge, science and technology (KST) can be brought to bear on these challenges? From the latest assessment of the impact of agricultural KST up to the present, it is clear that major increases in terms of agricultural productivity have been achieved. It is however also clear that these achievements have been attained with a lack of evenness in respect of geographical distribution. Some regions of the world have been more or less bypassed by the progress and continue to suffer poverty and malnutrition, while others are suffering from production stresses, such as land degradation, pollution of waterways and loss of biodiversity. Others still find themselves facing both stresses of production and increasing levels of inequity.

In this Science Forum 07 (SF 07), the impact of the AKST from within and outside the CGIAR over the past 50 years on the present state of agriculture is being presented with a regional angle. Given the many challenges that remain, four areas where KSTs can be expected to provide new opportunities to tackle the above-mentioned challenges in a sustainable manner are being elaborated upon. These are molecular biology, an area of science that has raised very high expectations and where there are interesting new development beyond the now already more traditional genetic engineering. When it comes to sustainable increases of productivity, agro-ecology has an inherent potential that is in need of more research and much wider application. From agro-ecology to the next SF 07 topic of spatial information and climate risk, there is a natural link that presents a good number of opportunities to deal with the expected issues linked to adaptation and mitigation to climate change. Lastly, the social sciences address major issues that provide the context for effective agricultural science and technology: the future of small farmers in an increasingly globalizing world, market access and value chains, access to production capital, child labor, enabling environments for more equitable and sustainable production systems, amongst others.

A more effective interaction of the CGIAR with the rest of the world's agricultural scientific community can benefit from both a careful stocktaking and strategic thinking. The scientific community outside the CGIAR has a huge potential to

contribute to the challenges ahead. The CGIAR, on the other hand has a unique offer to make to that community by offering its partnership, facilities, scientific know-how and unique geographical position in the heart of the problem areas. With strategic mobilization, present challenges can be turned into opportunities for the many talents within and outside the CGIAR to have the impressive impacts on the perennial issues of hunger, poverty, food security, health, sustainable development and human livelihoods.

1030 Coffee

1100 ***Parallel Session Theme 1: Science at Work for Sustainable Agriculture with its Multiple Roles.***

This set of parallel sessions addresses the following question: *What have been the major scientific achievements in and beyond the CGIAR, and what lessons have been learned from these in the agricultural development of countries in the developing regions of world?*

Session 1A. Asia and the Pacific (Venue: Exhibit Hall 2 AH)

Moderator: Steve Hall (Dir. General, WorldFish Center)
Presentation: Danilo C. Cardenas (Dep. Exec. Director, PCARRD)
Comments from Panelists: Raj Paroda (Exec. Secretary, APAARI)
Achim Dobermann (Program Leader, IRRI)
Open Discussion
Summation: Moderator

Session 1B. Central and West Asia and North Africa (Venue: Exhibit Hall 2 BG)

Moderator: Shawki Barghouti (Dir. General, ICBA)
Presentation: Kawther Latiri (Dir. of Research, INRAT, Tunisia)
Comments from Panelists: Mahmoud Solh (Dir. General, ICARDA)
Ahmed Nasser Al-Bakry (President, AARINENA)
Open Discussion
Summation: Moderator

Session 1C. Latin America and the Caribbean (Venue: Exhibit Hall 2 CF)

Moderator: Pamela Anderson (Dir. General, CIP)
Presentation: Jesus Moncada (Former Dir., INIFAP, Mexico)
Comments from Panelists: Eliseo Contini (Head, Office of Int. Affairs, Embrapa)
Rodomiro Ortiz (Dir. Resources Mobilization, CIMMYT)
Nicolas Mateo (Exec. Sec., FONTAGRO)
Open Discussion
Summation: Moderator

Session 1D. Sub-Saharan Africa (Venue: Exhibit Hall 2 DE)

Moderator: Kwesi Atta-Krah (Dep. Dir. General, Bioversity)
Presentation: Ida Sithole-Niang (Prof., University of Zimbabwe)
Comments from Panelists: P. Hartmann (IITA) (Dir. General, IITA)
 Monty Jones (Exec. Dir., FARA)
Open Discussion
Summation: Moderator

1230 **Lunchtime Presentations**

- World Development Report (WDR) Roundtable Discussion Room 302
- Civil Society Perspectives on the Future of International Agricultural Research Room 310
- Young Scientists: Engaging the Next Generation Room 306
- The Global Rust Initiative Room 308
- Sharing Scientific Success: A Dialogue with Winners of the CGIAR Science Awards Room 307
- The International Year of Biodiversity 2010: Challenges and Opportunities Room 303
- Agriculture and Health Exhibit Hall 2AH
- Water:Key for Climate Change Adaptation Exhibit Hall 2BG

1400 **Parallel Session Theme 2: Advanced Science to Enhance Research Effectiveness**

This set of parallel sessions addresses the following question: *What developments in various fields of science are needed to better address challenges to achieving sustainable agriculture with its multiple roles?*

Session 2A. Molecular Biology (Venue: Exhibit Hall 2 AH)

Moderator: Jean Marcel Ribaut (Director, Generation CP)
Presentation: Hei Leung (Program Leader and Sr. Scientist, IIRI)
 Scott Miller (Office of the Under-Secretary for Science, Smithsonian Institution)
Comments from Panelists: Mike Gale (Member, Science Council)
 Michael Baum (Biotechnologist, ICARDA)
Open Discussion
Summation: Moderator

Session 2B. Agroecology (Venue: Exhibit Hall 2 BG)

Moderator: Dennis Garrity (Dir. General, World Agroforestry Center)
Presentation: Jeff McNeely (Chief Scientist, IUCN)
Comments from Panelists: Bernard Hubert (Dir, GIP/IFRAI CIRAD-INRA, France)
 Richard Thomas (Sr. Scientist, ICARDA)
Open Discussion
Summation: Moderator

Session 2C. Spatial Information Technology (Venue: Exhibit Hall 2 CF)

Moderator: Colin Chartres (Dir. General, IWMI)
Presentation: Robert Zomer (Landscape Ecologist, WAC)
Comments from Panelists: Weili Zhang (Inst. of Natural Resources Management, CAAS)
Andrew Jarvis (Sr. Scientist, Bioversity and CIAT)
Open Discussion
Summation: Moderator

Session 2D. Social Sciences/Economics (Venue: Exhibit Hall 2 DE)

Moderator: Ruth Meinzen-Dick (Sr. Res. Fellow, IFPRI)
Presentation: Ruth Haug (Dir./Prof., Noragric, Norway)
Keijiro Otsuka (Professor, Tokyo Metropolitan Univ)
Comments from Panelists: Gopal K. Chadha (Member, Prime Minister's Economic Advisory Council, India)
Brent Swallow (Glo. Proj. Leader, World Agroforestry Center)
Open Discussion
Summation: Moderator

1530 **Parallel Session Theme 3: Strategies for Harnessing Advanced Science**

This set of parallel sessions addresses the following question: *What are the strategies by which CGIAR researchers can incorporate the concepts, tools, and methods of new science into their research while offering opportunities to colleagues from the scientific community-at-large to contribute to sustainable agriculture?*

Session 3A. Knowledge Systems and Innovation for Agricultural and Rural Development (Time: 15:30 – 16:45; Venue: Exhibit Hall 2 AH)

Moderator: Enrica Porcari (Chief Info Officer, ICT-KM)
Panel: Venancio Massingue (Min. of Sci. & Tech., Mozambique)
Bill Neibur (Chair, Private Sector Committee)
Carlos Sere (Dir. General, ILRI)
Inquisitor: Bob Day
Open Discussion
Summation: Moderator

Session 3B. Making IPRs work for Pro-poor Agricultural Innovation (Venue: Exhibit Hall 2 BG)

Moderator: Kenneth Fischer (Member, Science Council)(TBC)
Presentation: Niels Louwaars (CGIAR Liaison, Wageningen University)
Comments from Panelists: Carl-Gustaf Thornstrom (Asst. Prof., Swedish Univ. Agric

Sciences)
Victoria Henson-Apollonio (Sr. Scientist, CAS-IP)
Open Discussion
Summation: Moderator

Session 3C. Research Management Strategies (Venue: Exhibit Hall 2 CF)

Moderator: Rodney Cooke (Dir., Tech Adv. Div., IFAD)
Presentation: Michel Dodet (Vice-President International, INRA, France)
Comments from Panelists: William Dar (Dir. General, ICRISAT)
Masa Iwanaga (Dir. General, CIMMYT)
Frances Seymour (Dir. General, CIFOR) (TBC)
Open Discussion
Summation: Moderator

Session 3D. Resource Mobilization (Venue: Exhibit Hall 2 DE)

Moderator: Mark Cackler (Dir., ARD, World Bank)
Presentation: Jonathan Wadsworth (Sr. Rural Livelihoods Adviser, DFID)
Comments from Panelists: Franklin Moore (Director, USAID)
Ayman Abou Hadid (President, ARC, Egypt)
Emile Frison (Dir. Bioversity and Chair, AE)
Open Discussion
Summation: Moderator

Session 3E. Mobilizing Partners and Promoting More Inclusive Research Partnerships (Venue: Room 307)

Moderator: Christoph Kohlmeyer (Head of Division, BMZ, Germany (TBC))
Presentation: Jonathan Woolley (Program Coordinator, CPWF)
Adel El-Beltagy (Chair, GFAR)
Open Discussion
Summation: Moderator

1630 Coffee

1700 **Closing Plenary**, Convention Hall 2
Chair: Katherine Sierra
Remarks: Romano Kiome (Permanent Secretary, Min. of Agric., Kenya)
Rudy Rabbinge (Science Council Chair)
Ren Wang (CGIAR Director)

1730 Closing: Katherine Sierra

1800 Buses depart entrance BICC for Great Hall of the People

