

Consultative Group on International Agricultural Research (CGIAR)

Annual General Meeting 2001

October 30-November 1

The World Bank

Washington D.C.

**SUMMARY RECORD
OF
PROCEEDINGS AND DECISIONS**

The CGIAR Annual General Meeting was held at the World Bank, Washington D.C. from October 30-November 1. The meeting was held in two segments: a Stakeholder Meeting where major issues were discussed, and a Business Meeting for decision making. Twelve measures for further implementing the program of reform launched at International Centers Week 2000 were adopted. The main documents discussed or tabled at the meeting are posted on the CGIAR web site, www.cgiar.org.

*CGIAR Secretariat
(A CGIAR System Office Unit)
The World Bank
Washington D.C.
November 21, 2001*

ACRONYMS USED

AGM	Annual General Meeting
CAC	Central Asia and the Caucasus
CBC	Committee of Board Chairs
CDC	Center Directors Committee
CGIAR	Consultative Group on International Agricultural Research
CONDESAN	Consortium for the Sustainable Development of the Andean Eco-region
CP	Challenge Program(s)
CWANA	Central and West Asia and North Africa
EMBRAPA	Empresa Brasileira de Pesquisa Agropecuaria
EPMR	External Program and Management Review
ExCo	Executive Council
FAO	Food and Agriculture Organization
GFAR	Global Forum for Agricultural Research
GISP	Global Invasive Species Programme
IAC	International Agricultural Centre (The Netherlands)
ICW	International Centers Week
IEC	Interim Executive Council
IFAD	International Fund for Agricultural Development
INRM	Integrated Natural Resource Management
MTM	Mid-Term Meeting
MTP	Medium Term Plan(s)
NARS	National Agricultural Research Systems
NGOC	Non-Governmental Organizations Committee
OECD/DAC	Organization for Economic Cooperation and Development/Development Assistance Committee
PSC	Private Sector Committee
R&D	Research and Development
SC	Science Council
SG	Steering Group
SO	System Office
TAC	Technical Advisory Committee
TAC-SPIA	TAC-Standing Panel on Impact Assessment
TF	Task Force
TOR	Terms of Reference
UNDP	United Nations Development Programme
UNFPA	United Nations Population Fund
WANA	West Asia and North Africa
WB	World Bank
WFS	World Food Summit
WISARD	Web Information System for Agricultural Research And Development

International Agricultural Research Centers Supported by the CGIAR

Centro Internacional de Agricultura Tropical (CIAT)

Center for International Forestry Research (CIFOR)

Centro Internacional de Mejoramiento de Maiz y Trigo (CIMMYT)

Centro Internacional de la Papa (CIP)

International Center for Agricultural Research in the Dry Areas (ICARDA)

International Centre for Research in Agroforestry (ICRAF)

International Crops Research Institute for the Semi-Arid Tropics (ICRISAT)

International Food Policy Research Institute (IFPRI)

International Institute of Tropical Agriculture (IITA)

International Livestock Research Institute (ILRI)

International Plant Genetic Resources Institute (IPGRI)

International Rice Research Institute (IRRI)

International Service for National Agricultural Research (ISNAR)

International Water Management Institute (IWMI)

International Center for Living Aquatic Resources Management (The World Fish Center)
(ICLARM)

West Africa Rice Development Association (WARDA)

CONTENTS

	Page
Stakeholder Meeting:	
Revised Draft Agenda.....	5
Agenda Item 1: Opening Session.....	6
Agenda Item 2: Overview of the World Food Situation.....	6
Agenda Item 3: Centers' Forum	7
Agenda Item 4: 2001 CGIAR Excellence in Science Awards.....	8
Agenda Item 5: Updates	9
Agenda Item 6: Program Initiatives	9
Agenda Item 7: Change Design and Management in the CGIAR	10
Agenda Item 8: Other Business	11
Agenda Item 9: Closing Session	11
<i>Box: Special Events</i>	11
Business Meeting:	
Revised Draft Agenda	12
Agenda Item 1: Opening Session	13
Agenda Item 2: Evaluation (External Reviews)	13
Agenda Item 3: CGIAR Financing Plans	14
Agenda Item 4: Change Design and Management	15
<i>Box: Decisions Reached at MTM01</i>	15
<i>Executive Council</i>	16
<i>Challenge Programs</i>	19
<i>Science Council</i>	21
<i>System Office</i>	23
Agenda Item 5: Reports from TAC and TAC-SPIA	24
Agenda Item 6: Discussion on Future Harvest	24
Agenda Item 7: Other Business	24
Agenda Item 8: Closing Session	24
<i>Annex 1. Centers Forum: Summary of Presentations</i>	25
<i>Annex 2. Statement on Plant Genetic Resources</i>	33

AGM 2001—Stakeholder Meeting
(October 30-31, 2001)
Revised Draft Agenda

Agenda Item 1. Opening Session

- (a) Chairman's Opening Address
- (b) Adoption of the Agenda

Agenda Item 2. Overview of World Food Situation

- (a) Presentation by the Director General of IFPRI
- (b) Discussion

Agenda Item 3. Centers' Forum: *Research Impact: Today and Tomorrow*

- (a) Centers' Overview Presentation (Current and Incoming CDC Chairs)
- (b) Presentations by Centers
- (c) Discussion

Agenda Item 4. 2001 CGIAR Excellence in Science Awards

Agenda Item 5. Updates

- (a) CGIAR Gender and Diversity Program
- (b) Briefing on State of Agricultural R&D Worldwide (IFPRI)
- (c) Regional Priority Setting (GFAR and TAC)
- (d) Johannesburg Earth Summit and WFS+5 (Inter-center Task Force on JES and WFS+5 and CGIAR Secretariat)
- (e) CGIAR Partners
 - GFAR
 - NGOC
 - PSC
- (f) GRPC

Agenda Item 6. Program Initiatives

- (a) Climate Change
- (b) Water and Agriculture
- (c) Biofortification
- (d) Animal Diseases, Food Safety and Trade
- (e) INRM
- (f) Agriculture and Desertification
- (g) Research Information Systems/WISARD
- (h) Invasive Species

Agenda Item 7. Change Design and Management in the CGIAR

- (a) Overview of Interim Executive Council Integrated Proposal
- (b) Discussion (for consideration by the Business Meeting)

Agenda Item 8. Other Business

Agenda Item 9. Closing Session

- Chairman's Summation

Stakeholder
Meeting
(October 30-31, 2001)

Agenda Item 1. Opening Session

(a) Chairman's Opening Address

In his opening address, "*The Challenge of Change: Decisions on Reform in the CGIAR*," the Chairman urged the entire CGIAR community to approach the reform proposals on the agenda with a due sense of urgency. "We must leave this meeting on Thursday with decisions reached, future steps outlined, and commitment to action firmly in place," he emphasized.

The full text of the Chairman's address is on the CGIAR web site, www.cgiar.org. Click on Annual General Meeting 2001.

(In keeping with the spirit of reform, the "Chairman's Announcements" made in the past were dropped from the agenda. In its place, two publications -- *Nourishing a Peaceful Earth: The CGIAR's Contributions* and a special edition of *CGIAR News* -- were released. In addition, a special e-report that provides more in-depth coverage of Center's work, accomplishments, and impacts was posted at www.cgiar.org.)

(b) Adoption of the Agenda

The draft agenda was adopted.

Agenda Item 2. Overview of the World Food Situation

The Chairman congratulated the speaker, IFPRI Director General Per Pinstrup-Andersen, on being awarded the 2001 World Food Prize for his "contribution to agricultural research, to food policy, and for uplifting the status of the poor and starving citizens of the world."

Per Pinstrup-Andersen presented an overview of the developing world food situation, the demands it placed on agriculture, and the challenges and opportunities these presented to the CGIAR.

The full text of his presentation is available at www.cgiar.org. Click on Annual General Meeting 2001.

Agenda Item 3. Centers' Forum – *Research Impact Today and Tomorrow*

(a) Overview presentation

Two overview presentations, outlining the present and future work of the Centers, and introducing the audience to the thrusts and themes of the Centers' Forum, were made by Hank Fitzhugh, outgoing Director General of ILRI and Chair, Center Directors Committee (CDC), and Meryl J. Williams, Director General, ICLARM-The World Fish Center, incoming CDC Chair.

(b) Presentations by Centers

The "Centers' Forum" was divided into four segments, each of them featuring presentations by four Centers. Each block of presentations was chaired by a Board Chair as follows: 1. John Vercoe (ILRI), 2. Angeline Kamba (IRRI), 3. Kurt Peters (ICLARM), and 4. Moise Mensah (ISNAR). The presentations were followed by discussions and questions.

The following presentations were made:

1. Integrated Natural Resource Management (INRM)

ICRAF – Agroforestry for Integrated Management of Tropical Watersheds.

IITA – Sustainable Resource USE in the Dry Savannas of West Africa.

ICLARM – Global Fish Crisis Impacts Poor: There Are Not Plenty More Fish in the Sea.

IWMI – Dialogue on Water, Food and Environment.

2. INRM and Biodiversity

CIAT – Climate Change, Spatial Analysis and the Poor.

IFPRI – Spatial Frameworks for Policy Analysts: Growth, Environment and Poverty Linkages in Uganda.:

CIMMYT – Global Genetic Insurance: On-farm Benefits for the Resource Poor.

IPGRI – Managing Crop Diversity in Agroecosystems.

3. Innovative Partnerships

ISNAR – Innovative Partnerships Among Centers.

ICARDA – Value Obtained from Innovative Partnerships.

IRRI – Food Security by Design.

CIP – Broadening Boundaries in Agriculture: Impact on Health, Habitat, and Hunger.

4. Poverty Reduction

ILRI – Livestock Disease and the Poor.

CIFOR – Tropical Forests and Rural Livelihoods: The Role of Research.

WARDA – People, Food and Livelihood: A Sahelian Experience.

ICRISAT – Grey to Green Revolution through Science with a Human Face: Impact on Poverty Reduction.

A synopsis of the presentations is at Annex 1.

Agenda Item 4. 2001 CGIAR Excellence in Science Awards

The CGIAR Science Awards were established in 1996 to honor scientific research excellence and achievements in the CGIAR System. Each award consists of a certificate and a cash prize of \$5,000. An Evaluation and Selection Panel composed of the TAC Chair, the CBC Chair, Mauricio Lopes (EMBRAPA) and Bob Goodman (Univ. of Wisconsin and McKnight Foundation) evaluated the nominations and selected the winners.

The CGIAR Chairman presented the 2001 awards to:

1. Promising Young Scientist: **Alex Kahi**, Lecturer, Egerton University (Kenya) and former graduate fellow of ILRI – for his research work combining genetic analyses and simulation models to assess alternative options in livestock breeding, work that is being adapted for smallholder sheep production in Africa and Asia.
2. Outstanding Scientist: **Hari C. Sharma**, Entomologist, ICRISAT – for his contributions in the areas of insect bionomics and toxicology, host-plant resistance, natural pesticides, biocontrol, integrated pest management, and biotechnology.
3. Outstanding Scientific Support Team: **Hybrid Rice Breeding Team, IRRI** – for greatly facilitating a smooth and continuous supply of new and improved parental lines and hybrids, as well as advancing the frontiers of knowledge about hybrid rice technology.
4. Outstanding Scientific Article: **“Genetic Diversity and Disease Control in Rice” with 14 co-authors from Yunnan Agricultural University and Plant Protection Stations of Yunnan Province, China and from IRRI** – published last year in the journal *Nature*, the paper documents the research done by a partnership combining IRRI and Chinese institutions on the use of genetic diversity to control rice blast disease. The co-authors are **Youyong Zhu, Hairu Chen, Jinghua Fan, Yunyue Wang, Yan Li, Jianbing Chen, JinXiang Fan, Shisheng Yang, Lingping Hu, Hei Leung, Tom W. Mew, Paul S. Teng, Zonghua Wang, and Christopher C.Mundt.**
5. Outstanding Scientific Partnership: **“Sustainable Land Management of Acid Soil Savannas” with CIAT and 10 partner organizations** – Work done over seven years under this partnership has characterized the agroecology of acid soil savannas, developed sustainable land management practices, and identified indicators of land quality. The partnership involved farmers in Brazil, NARS institutions in Brazil and Colombia, universities and advanced research institutions in France and Germany, and CIAT. It has been instrumental in helping protect the American savannas, a vast but fragile agricultural frontier.

For further details, see CGIAR News, October 2001.

Agenda Item 5. Updates

The following updates were presented:

- (a) Gender and Diversity in the CGIAR -- Vicki Wilde, Program Leader, Gender and Diversity Program.
- (a) State of Agricultural R&D Worldwide -- Philip Pardey, IFPRI
- (c) Regional Priority Setting Progress Report on Regional Approach to Research -- Emil Javier, TAC, and Fernando Chaparro, GFAR
- (d) World Summit on Sustainable Development -- Coosje Hoogendoorn, IPGRI
- (e) CGIAR Partners -- GFAR: Raj Paroda, NGOC: Ann Waters-Bayer, PSC: Sam Dryden.
- (f) GRPC -- Geoff Hawtin, IPGRI on behalf of GRPC Chair M. Swaminathan.

The texts of updates presented are posted on the CGIAR web site. Click on Annual General Meeting 2001.

Agenda Item 6. Program Initiatives

Discussions were held in three parallel sessions on the following program initiatives:

Session 1. Chair: Leen Boer

- i. Climate Change – Dennis Garrity (ICRAF).
- ii. Water and Agriculture – Frank Rijsberman (IWMI).
- iii. Biofortification – Joachim Voss (CIAT) and Per-Pinstrup Andersen (IFPRI).

Session 2. Chair: Joseph Mukiibi

- i. Animal Diseases, Food Safety, Trade and Poverty – David Taylor (ILRI) and Chris Delgado (IFPRI).
- ii. Agriculture and Combating Desertification – Barry Shapiro (ICRISAT) and William Erskine (ICARDA).
- iii. INRM – Jacqueline Ashby (CIAT).
- iv. Research Information Systems/WISARD – Frans Neuman (IAC, Wageningen, The Netherlands).

Session 3. Chair: Thomas Lovejoy

- i. Invasive Alien Species, Agricultural Development, and the Aid Trade – Jeff Waage (GISP).

Background documentation on the presentations and summary reports from the parallel sessions are posted on www.cgiar.org. Click on Annual General Meeting 2001.

Agenda Item 7. Change Design and Management in the CGIAR

The Chairman invited the stakeholders to comment on the Interim Executive Council's Integrated Proposal on change design and management. He noted that the CGIAR welcomes the views of the stakeholders, which would be taken into account during CGIAR decision-making at the Business Meeting.

Points raised on the four pillars of reform included the following:

Executive Council

- Foundations and regional banks should not be grouped together. The regional Banks could be included in the respective developing country grouping.
- CWANA¹ should be listed as a separate region.
- GFAR should have a non-rotating membership and not be included as alternatives to NGOC, PSC, and regional fora.
- Regional forum chairs should be provided a seat in the ExCo.
- Farmers' organizations should be represented in the CGIAR with a separate committee and the chair of that committee should be a member of the ExCo.
- ExCo should reach its decisions by consensus, not by voting.
- Decisions on resource allocation should be by the general body, not just ExCo.
- Members should rotate every two years (instead of three), where this is applicable.
- Each constituency should agree on its own rules that would be applicable to selections and to alternates.

Challenge Programs

- The CGIAR should consider not only the CP proposals listed in the IEC Integrated Proposal, but also others. These should include a CP on Africa, and one on genetic resources.
- It should be clarified how accountability of CPs to ExCo would be reinforced.
- Consortia that are not selected for full proposal development could be considered for small grants to develop their ideas further, for possible financing through other sources.

Science Council

- An eight-person Science Council could be too small. Consideration should be given to increasing its size to 12.

¹ A new regional grouping that combines Central Asia with WANA (West Asia and North Africa).

- The Science Council should continue TAC’s present involvement with regional priority setting. In addition, it should strive to strengthen the regional fora by provoking them with ideas.
- The TOR of the SC should be reconciled with that of the Program Committee of ExCo.

System Office

- The terms-of-reference of the System Office are not clear. It is also not clear how it would operate in a virtual and decentralized mode.
- The System Office should not impose a uniform vision, but promote diversity and flexibility in the System.

In addition, it was pointed out that there were several inconsistencies between the recommendations and the attachments. The Chairman noted that the text of the attachments would be reviewed carefully to remove the inconsistencies. He thanked participants for their comments and assured them that these would be considered during decision-making.

Agenda Item 8: Other Business

None.

Agenda Item 9. Closing Session

The Chairman thanked participants for helpful and constructive discussions that would contribute to the effectiveness of the next day’s decision-making session.

SPECIAL EVENTS

- A public exhibit “**We Can Feed the World *and* Keep it Green**” was launched by **James D. Wolfensohn**, World Bank President, **Carole Brookins**, World Bank US Executive Director, and **Ian Johnson**, World Bank Vice President and CGIAR Chairman, on October 29 in the atrium of the World Bank’s main complex. The exhibit demonstrated how research by the CGIAR-supported Centers provides solutions to 21st century problems of hunger, poverty, and environmental degradation.
- **Nafis Sadik**, Special Adviser to the U.N. Secretary General and former Executive Director of the UN Population Fund (UNFPA) delivered the 2001 Sir John Crawford Memorial Lecture, “***Feeding the World, Sustaining the Earth: The Critical Importance of Population Issues***”, on October 31.

CGIAR AGM 2001—Business Meeting
(November 1, 2001)
Revised Draft Agenda

Agenda Item 1. Opening Session

- (a) Chairman's Opening Remarks
- (b) Adoption of the Agenda

Agenda Item 2. Evaluation

- (a) External Program and Management Review of IITA
 - (i) Presentation by Panel Chair
 - (ii) Discussion
- (b) External Review of the Systemwide Livestock Program
 - (i) Presentation by Panel Chair
 - (ii) Discussion

Agenda Item 3. CGIAR Financing Plans

- (a) Financing Plan for 2002
 - (i) Report from the Secretariat
 - (ii) Discussion
- (b) 2003 Financing Planning Calendar
 - (i) Report from the Secretariat
 - (ii) Discussion
- (c) Chairman's summary of conclusions reached

Agenda Item 4. Change Design and Management

- (a) IEC Recommendations
- (b) Discussion
- (c) Appointment of the CGIAR Executive Council
- (d) Chairman's summary of decisions reached

Agenda Item 5. Reports from TAC and TAC-SPIA

Agenda Item 6. Discussion on Future Harvest

Agenda Item 7. Other Business

Future CGIAR Meetings

Agenda Item 8. Closing Session

Business Meeting
(November 1, 2001)

Agenda Item 1: Opening Session

(a) Chairman's Opening Remarks

CGIAR Chairman Ian Johnson, welcomed members to the decision-making stage of the first Annual General Meeting of the CGIAR. He said that the Interim Executive Council and the Stakeholder Meeting had provided important inputs to the Business Meeting which could now move forward with key decisions that would maintain the momentum of change in the CGIAR. It was essential, he emphasized, to reach closure on the program of reform launched at ICW2000.

The Chairman reported that he had invited the International Fund for Agricultural Development (IFAD) to join the cosponsors' group and that IFAD had agreed. The meeting endorsed IFAD's entry into the cosponsors' group by acclamation. The Chairman bade farewell to members, Center Directors, and Board Chairs who were ending their terms, and welcomed their successors.

(b) Adoption of the Agenda

NGOC Co-Chair Ann Waters-Bayer requested inclusion of AGM Evaluation under Other Business. The agenda was adopted with this addition.

Agenda Item 2: Evaluation

Two external reviews were considered: the **IITA External Program and Management Review (EPMR)** and the **External Review of the System-wide Livestock Program**. Introducing the agenda item, the Chairman pointed out that by bringing the reviews into plenary, the CGIAR was reaffirming the importance of evaluation.

IITA

Panel Chair Ken Cassman, presenting the highlights of the IITA review, said that the institute had made a significant impact on poverty and natural resource management. He foresaw a strong program and role for IITA in the future. The key point for attention was strengthening leadership of the research program. Mr. Cassman's comments were followed by an exchange of views centered on the main recommendations of the EPMR.

The meeting:

- **commended** the panel for conducting a thorough review, and IITA for its collaboration with the panel and for its constructive responses;
- **endorsed** the EPMR recommendations and IITA's proposed follow-up;
- **recommended** that a IITA's board should submit a follow up report to the ExCo on the implementation of EPMR recommendations.

Livestock Research

Panel Chair Jock Anderson presented the highlights of the System-wide Livestock Research Program review. He emphasized the importance of the research that had been conducted, the significance of inter-center collaboration that the program brought about, and the benefit of the experience it created. Mr. Andersen's comments were followed by a discussion on the lessons to be drawn from the program for the future, and particularly for the establishment of Challenge Programs.

The meeting:

- **commended** the panel for conducting a thorough review; ILRI for serving as lead Center, other Centers engaged in the program, and donors who made this program possible;
- **noted** the panel's critical and constructive remarks about governance mechanisms for a multi-Center/multi-partner program;
- **endorsed** the panel's recommendation (supported by TAC) for a strategic research program on livestock involving ILRI, other CGIAR Centers, and non-CGIAR Centers.

Agenda Item 3: CGIAR Financing Plans

Shey Tata, Senior Finance Officer, CGIAR Secretariat, presented the 2002 CGIAR Research Agenda requiring \$340 million in funding. The total amount had been reduced from an earlier, higher estimate of \$362 million, in consultation with TAC and the Centers, because a few members had indicated expected changes in their respective contributions. The 2001 budget, however, was on track, although the flow of disbursements to Centers was uneven and continued to cause some problems. Shey Tata also proposed that the earlier two-step approval process for the financing plan be replaced by a single step process. In the discussion that followed members agreed that it would be useful if future presentations provided a more detailed breakdown of figures. In connection with references to World Bank funding, the meeting was reminded that a meta-evaluation was being conducted by the Operations Evaluation Department of the World Bank, as requested by the Development Grant Facility of the Bank. Regional concerns were expressed about CGIAR investment, particularly in Latin America and CWANA.

The Group:

- **approved** the proposed 2002 financing plan requiring \$340 million in funding support;

- **agreed** that with the switch from two meetings to one CGIAR meeting per year, the two-step financial planning calendar (approval of medium term work plans at MTM, followed by approval of financing plans at ICW) should be replaced by simultaneous approval of the medium term work plans and financial plans at each AGM, with major revision of a MTP requiring review and recommendation by the Science Council;
- **authorized** commissioning of the 2003 planning process, and issuance by the CGIAR Secretariat of guidelines for 2003 planning under the oversight of the Executive Council.

Agenda Item 4: Change Design and Management

The Chairman urged the meeting to reach firm decisions on the recommendations contained in the IEC's Integrated Proposal. The thrust of the recommendations originated in a change design and management initiative that was launched at International Centers Week 2000 (ICW2000), and culminated in the adoption by the CGIAR at its May 2001 Mid-Term Meeting (MTM01) of four pillars of reform.

DECISIONS REACHED AT MTM01

1. Executive Council

- (a) The CGIAR as a whole will meet once a year. The CGIAR will create an Executive Council, which will report to and carry out responsibilities delegated to it by the Group.
- (b) The Interim Executive Council will consist of the Cosponsors, the CGIAR Director, members of the current Oversight and Finance Committees, and the Chairs of CBC, CDC, TAC, NGOC, PSC and GFAR.
- (c) The Interim Executive Council will function from May to October 2001 and be dissolved upon the appointment of the Executive Council at the 2001 Annual General Meeting.

2. Challenge Programs

The CGIAR will incorporate a programmatic approach to research planning and funding, to complement existing approaches, and initiate the formulation and implementation of Challenge Programs.

3. Science Council

TAC will be transformed into a Science Council.

4. System Office

- (a) The CGIAR will establish a System Office.
- (b) A single, integrated communication strategy, for coherent communication and fund-raising, should be developed by the System Office, the Centers, and Future Harvest.

An Interim Executive Council (IEC) was established to facilitate implementation of these decisions. The IEC set up a task force for each of them. The task forces consulted

broadly with stakeholders at each stage of their deliberations. Each task force prepared a draft proposal. These were integrated into a single proposal by the co-chairs of the task forces and the CGIAR Secretariat. The Proposal contained twelve recommendations in four clusters, each dealing with a pillar of reform, as well as a series of attachments outlining procedures and criteria applicable to the implementation phase of the recommendations. The Proposal was fully discussed by the IEC on the eve of the CGIAR Annual General Meeting, by the Stakeholder Meeting, and by the Business Meeting.

The Business Meeting endorsed the twelve recommendations, with clarifications and modifications that were required to accommodate the consensus view of members on specific aspects of the Proposal. Discussion of the recommendations included comments on the contents of the attachments and, in some instances, suggestions for change.

The Chairman assured the meeting that the attachments would be modified to reflect fully the consensus views of the meetings. The revised attachments will be circulated among CGIAR members and stakeholders.

A summary of the sense of the discussions, and the text of the decisions reached, i.e. the texts of the recommendations as adopted, appear below.

Executive Council (ExCo)

Recommendation 1, 2, and 3 dealt with the establishment of an Executive Council to act on behalf of the Group on matters delegated to it by the Group. The ExCo, with the CGIAR Director as Secretary, would be a committee of stakeholders, incorporating perspectives from all components of the CGIAR. A possible composition of an ExCo of non-rotating and rotating members was set out. It was also proposed that two ExCo committees, one on Programs and the other on Finance, should be established at AGM01.

The spirit of the recommendations was endorsed but several points of clarification were raised. One of the points requiring further clarification was the role of cosponsors in the reformed CGIAR. In another area, there was clear consensus that the provision in the recommendation enabling shareholder members of the ExCo to meet in closed session, with stakeholders excluded, was not acceptable.

Considerable discussion ensued, as well, on the size of the ExCo – smaller or larger – and its component segments. There was broad agreement that the Central Asia should be combined with the WANA region to form a new regional grouping, CWANA. Support was expressed for GFAR's participation as a non-rotating member. Civil society participation was discussed, and it was suggested that farmers' perspectives should be directly available to the ExCo.

The relationship between the committees and the AGM was explored during the discussion, and a strong sense emerged that membership of the committees should not be restricted to ExCo members. The operations of the committees were reviewed, and there was general agreement that both committees should have clear terms-of-reference, and that the Program Committee's terms-of-reference should be aligned with those of the Science Council. The role of other CGIAR committees such as the GRPC was discussed. The ExCo was requested to examine these further and, as well, to explore fully the most appropriate means of strengthening and broadening dialogue with civil society institutions including farmers' organizations.

Based on these discussions, the following decisions were taken:

Decision 1:

The ExCo will have authority to act on behalf of the Group between AGMs on matters delegated to it by the Group. The CGIAR delegates to the ExCo the functions necessary for carrying out the regular business of the Group, as specified in Attachment 1,² recognizing the need to align the functions of all CGIAR governance units. In addition, the ExCo will facilitate decision-making by the Group and provide oversight during the implementation of the Group's decisions. The ExCo should report to the Group regularly, using electronic and other means.

Decision 2:

The ExCo is a committee of stakeholders, incorporating perspectives from all components of the CGIAR System.

The composition of the ExCo is as follows:

Non-rotating ExCo Members:

CGIAR Chairman	1
Co-sponsors (FAO, WB, UNDP and IFAD)	3 ³
CBC, CDC and SC Chairs	3
GFAR	1

Rotating ExCo Members:

OECD/DAC Country Representatives	5
Americas	1 member

² Attachments referred to in the list of Decisions, are attachments to the IEC Integrated Proposal. These will be modified in the light of comments made at the CGIAR meeting, with particular attention paid to the alignment of functions to be carried out by CGIAR's governance units.

³ Cosponsors hosting a System governance unit (such as the Science Council Secretariat and the CGIAR Secretariat) would maintain a continuous membership on the ExCo. Rotation would apply to Cosponsors not hosting such a mechanism.

<i>Asia and Pacific</i>	<i>1 member</i>
<i>Europe</i>	<i>3 members</i>
<i>Developing Country Representatives</i>	<i>5</i>
<i>Americas</i>	<i>1 member</i>
<i>SSA</i>	<i>1 member</i>
<i>Asia and Pacific</i>	<i>1 member</i>
<i>CWANA</i>	<i>1 member</i>
<i>Regional Fora</i>	<i>1 member</i>
<i>Foundations</i>	<i>1</i>
<i>Civil Society/NGOs/ Farmers' Organizations</i>	<i>1</i>
<i>Private Sector</i>	<i>1</i>
<u><i>Total</i></u>	<i>21</i>

The CGIAR Director will serve as Executive Secretary of the ExCo. Rotating ExCo members will have a term of two years. Each constituency will agree on rules defining its alternates.

The composition of the ExCo, based on agreement among members of the different constituencies conveyed to the CGIAR Chairman, follows:

**Membership of the CGIAR Executive Council
(November 2, 2001)**

<i>Chairman:</i>	Ian Johnson	
<i>Cosponsors :</i>	Jacques Eckebil	FAO
	Robert L Thompson	World Bank
	Rodney Cooke	IFAD
<i>CDC:</i>	Meryl Williams	CDC Chair
<i>CBC:</i>	John Vercoe	CBC Chair
<i>TAC/SC</i>	Emil Javier	TAC/SC Chair
<i>GFAR</i>	Raj Paroda	GFAR Chair
<u><i>OECD/DAC:</i></u>		
<i>Americas</i>	Jonathan Conly	U.S.
<i>Asia-Pacific</i>	Tishinori Mitsunaga	Japan
<i>Europe</i>	Gilles Saint-Martin	France
	Ruth Haug	Norway
	Klaus Winkel	Denmark
<u><i>Developing Countries:</i></u>		
<i>Americas</i>	Alberto Portugal	Brazil
<i>SSA</i>	Bongiwe Njobe	South Africa

<i>Asia-Pacific CWANA Regional Fora</i>	Longyue Zhao Issam El-Zaim [To be identified]	China Syria
<i>Foundations:</i>	Robert Herdt	Rockefeller F.
<i>Partners:</i>		
<i>Civil Society</i>	Ann Waters-Bayer	NGOC Chair
<i>Private Sector</i>	Sam Dryden	PSC Chair

Decision 3:

The ExCo will operate under the rules of procedure outlined in Attachment 2. The ExCo will have two committees: a Committee on Programs and a Committee on Finance. These committees could have membership beyond the membership of the ExCo and their terms of reference should be aligned with those of other CGIAR committees (such as the Science Council). ExCo should also consider ways in which the CGIAR could improve its dialogue with civil society organizations (such as farmers' organizations) and extend, as appropriate, the terms of other CGIAR committees (such as GRPC).

Challenge Programs

Recommendation 4, 5, and 6 dealt with the development and implementation of Challenge Programs. Although the recommendations were considered individually, discussions covered a full range of issues relating to Challenge Programs and, thus, to the full set of recommendations. The concept of Challenge Programs, and their appropriateness as instruments of the reformed CGIAR, was reaffirmed. Discussion centered therefore on details such as the process by which they should be developed, the criteria against which proposed programs should be assessed, management of Challenge Programs, and whether or not some or all of the concept notes/ideas submitted to the AGM (see below) should be “fast tracked” as per Recommendation 6.

The recommendation that “the CGIAR” should have ultimate authority in approving Challenge Programs gave rise to concerns that approval could then be granted only annually. To prevent a slowing down of the process, it was agreed that the ExCo should monitor the development of proposals carefully, and that decisions by members could be by electronic means.

The substance of Challenge Programs was examined, and there was general agreement that a proposal to be considered potentially viable should be grounded in but go beyond the current core activities of the Centers involved. It was understood that authority for administering Challenge Programs would necessarily reside with a legally constituted entity, which, in most cases, would be a CGIAR Center. It was also noted that

governance arrangements and financial accountability for each Challenge Program should be clearly spelled out in the business plan that would be reviewed by the ExCo.

The term “fast tracking” was rejected, and concerns were expressed that going forward with programs that had been conceptualized on a top-down basis would run counter to the agreement at MTM01 that Challenge Programs should be built on the foundation of bottom-up regional priority setting that the Centers and TAC have been pursuing with partners such as GFAR and regional organizations. Proposals selected for acceleration should provide for stakeholder involvement, including regional priority setting (whenever appropriate), during the preparation of full proposals. Proposals not selected for acceleration may be submitted through the regular process of CP identification and selection.

Decision 4:

The CGIAR will adopt a flexible and learning-by-doing approach to designing Challenge Programs (CPs). The CPs should complement the Centers’ core competencies and all should satisfy a minimum set of principles and criteria, as listed in Attachment 3.

Decision 5:

The CGIAR will have final decision authority in identification of CP themes and approval of full proposals. The ExCo and the Science Council will help facilitate the process as described in Attachment 4.

Governance and management arrangements should be flexible and adaptable to the specific needs of each CP and should be spelled out in full in the specific business plan. Authority for administering CPs would necessarily reside with a legally constituted entity, which, in most cases, would be a CGIAR Center. Each CP would report to the CGIAR through the ExCo. In most cases, a CP would be coordinated by a CP Coordinator, with CP-wide oversight provided by a Steering Group (SG) and component oversight provided by each core party, as described in Attachment 4. ExCo should closely monitor the governance and management arrangements for each CP.

Decision 6:

The CGIAR will immediately initiate the regular CP process by starting Phase 1 (idea generation) upon completion of AGM2001. In addition, the CGIAR will accelerate, on a pilot and one-time only basis, up to three CPs during the initial year of CP implementation so that the System can explore ways of improving CP design and implementation. The pilot CPs will be selected by the CGIAR upon recommendation by the ExCo, following a thorough technical review by TAC/SC of the ten candidate CP proposals submitted prior to or at AGM200. The review by TAC/SC should be based on all criteria applicable to Phases 1 and 2, plus additional factors significant for piloting the CP process. The pilot CPs selected by the ExCo will start full proposal

development, which, following review by SC and its external peer review panels, would be submitted to the CGIAR for approval. ExCo should provide close oversight of the development of the pilot CPs.

The CP proposals that are candidates for acceleration on a one-time only basis are the following:

- *Agriculture and Combating Desertification*
- *Animal Diseases, Market Access, Food Safety and Poverty Reduction*
- *Climate Change*
- *Development of Sustainable Agricultural Production Systems in Central Asia and the Caucasus (CAC)*
- *Global Genetic Resources: Conservation, Management and Improvement for Food and Nutritional Security, Agrobiodiversity and Sustainable Livelihoods*
- *Global Initiative on HIV/AIDS, Agriculture and Food Security*
- *Global Mountain Program*
- *Harnessing Agricultural Technology to Improve the Health of the Poor: Biofortified Crops to Combat Micronutrient Deficiency*
- *The African Challenge Program*
- *Water and Agriculture*

Science Council (SC)

Recommendations 7, 8, and 9 which covered the transformation of TAC into a Science Council of eight members plus the Chair were considered together. The recommendations were endorsed on the basis of comments, clarifications, and modifications. There was general agreement that the transformation should be carefully managed, and that a working group should be created by the ExCo to prepare a detailed proposal, including composition, functions, alignment with ExCo and the System Office, costs, and operational and administrative aspects of the transition. The size of the SC was discussed, as well, with some members suggesting that it should eventually be set at a maximum of twelve, with balance and diversity.

The need for the SC to draw on international networks of scientists was reiterated, and it was suggested that the range of skills of SC members should be kept under review. Quality, perspective, and diversity were considered as essential criteria applicable to the Science Council. Science management, some members felt, should be added to the core competencies of the SC, and different forms of science including traditional knowledge should be part of the council's skills mix. There was a strong sense expressed that resource allocation related to key programmatic matters should be among the topics on which the SC could comment, and that this should be reflected in its terms-of-reference. Peer review should also be a responsibility of the SC. The SC was expected to advise the ExCo's Program and Finance Committees, and to report to the full CGIAR through the annual general meeting.

Members stressed the importance of ensuring that the regional priority setting work undertaken so far by TAC should be continued, and that a smooth transition from TAC to the SC should be ensured.

Decision 7:

The primary responsibilities of the Science Council will be: (a) to serve as guardian of relevance and quality of science in the CGIAR, and, (b) to advise the CGIAR on strategic scientific issues relevant to the Group's goals and mission. SC should also function as a strategic adviser to ExCo and its Program and Finance Committees and should ensure that a system of peer reviews is in place across the System. The functions of SC are described in Attachment 5, and its roles and responsibilities in relation to CPs is described in Attachment 4.

Decision 8:

The SC will be composed of up to eight (8) individuals plus the Chair. The members should be eminent scientists in relevant disciplines in the biological, physical, and social sciences. While solid scientific stature should be a major selection criterion, the members of the Council should have strong science policy and development experience, with the overall composition of the Council reflecting diversity in forms of science and understanding of science management. The size and the range of skills required of SC members should be kept under review by the ExCo.

Decision 9:

The SC and its Secretariat should have its operational costs covered by the Cosponsors and should be hosted by FAO. An agreement among cosponsors covering the terms of FAO's hosting of the SC Secretariat should be prepared and formalized. This agreement should cover, among others, an institutional arrangement permitting greater latitude to the SC in recruitment of staff and provision of services to SC members while satisfying any legal obligations of FAO as host organization.

The present TAC should be phased out as of December 31, 2001, and an interim SC should be constituted at the beginning of 2002, when the transition from the TAC Secretariat to SC Secretariat would commence. The ExCo should establish a working group to prepare a detailed proposal on the SC's composition, functions, alignments with the CGIAR's governance units, and operational, and administrative aspects of the transition from TAC to the SC, including its cost structure and mechanisms of financing, in the context of the broad decisions taken by the CGIAR at AGM2001.. The transition arrangements recommended by the Science Council Task Force (described in Attachment 5) should be considered as background for the ExCo working group.

System Office

Recommendations 10, 11, and 12 which dealt with the establishment of a System Office were considered together. The recommendations were endorsed, but clarifications were sought on some issues. These included the accountability of components of the System Office, the total costs of the Office, and the specifics of how it would work. The fact that the Future Harvest foundation would report to the CDC should be made clear.

Decision 10:

Establishment of a System Office is but a first step in the direction of creating a more integrated, cohesive and coherent System. The System Office should be composed of and integrate the activities carried out by the CGIAR Secretariat, Science Council Secretariat, entities providing common services to the Centers, and the Future Harvest Foundation. It should serve the entire System and help it function in an integrated and responsive manner, implementing a compelling vision, mission and strategy. Its specific functions (described in detail in Attachment 6) should be developed and integrated gradually.

Decision 11:

The System Office should operate in a “virtual” and decentralized mode, with its components located where it makes the most business sense. The direct accountability of each System Office component, in a fiduciary and service performance sense, should be to its own governing authority, e.g., SC Secretariat to the SC, CGIAR Secretariat to the Chairman and the CGIAR, units carrying out common services to centers to the CDC/CBC, and Future Harvest to its Board and, through it, to the CDC. At the same time, each component—as part of an integrated effort—should be accountable in a larger sense also to the ExCo, this accountability being coordinated through the CGIAR Director. Relations among the components, in particular formal commitments, should be defined through contracts or agreement memoranda.

Decision 12:

An integrated business plan should be prepared, covering all the activities of the System Office, by the various components under the overall direction of the CGIAR Director. The business plan should serve as the basis for approval of annual work plans and performance targets for each component. It should also serve as a mechanism for accountability and reporting to the ExCo and to each component’s governing authority.

Current financing levels by all parties should be maintained until the preparation of the initial business plan which should include estimates of the full costs of System Office operations. The ExCo should explore all financing options, including alternative forms of burden-sharing.

Agenda Item 5: Reports from TAC and TAC-SPIA

The reports were accepted by acclamation. As TAC was being transformed into a Science Council, many members felt it would appropriate to place on record their appreciation of the work done by the TAC Chair and TAC, the TAC-SPIA Chair and his team, and the TAC Secretariat. They were all congratulated for the contribution they had made to the progress of the CGIAR. Particular mention was made of the important role they had played in introducing a strong impact evaluation approach.

Agenda Item 6: Discussion on Future Harvest

The role of the Future Harvest foundation, established by Center Directors as a public awareness and fund raising mechanism, was placed on the agenda at the request of several members. Among the issues raised at the meeting was the specific role of the foundation, its governance, monitoring and evaluation, its relationship with the CGIAR and, bilaterally, with each member, and its impact. The meeting decided that the work of the foundation should be further discussed by the Executive Council in the context of the integrated communication strategy currently being developed by a Task Force.

Agenda Item 7: Other Business

The meeting discussed four issues and decided as follows:

- (a) The next annual general meeting will be held over three days in the period October 28-November 1, 2002.
- (b) The first annual general meeting should be evaluated, and lessons learned should be factored into the planning for AGM02. Members were requested to send their comments to the CGIAR Secretariat (<mailto:cgjar@cgjar.org>).
- (c) Agricultural trade issues that seriously affect developing country agriculture should be kept under review by the CGIAR, which could play a heightened advocacy role to address the issues of fair trade and balanced development.
- (d) A resolution on the FAO International Undertaking on Plant Genetic Resources for Food and Agriculture was adopted. The text is at Annex 2.

Agenda Item 8: Closing Session

The Chairman thanked all those whose endeavors had helped to make the first annual general meeting a success. He particularly thanked participants in the meeting who had moved forward the process of reform, so that the CGIAR could continue to serve as an effective instrument of development.

Centers' Forum: Summary of Presentations

Overview presentations by Hank Fitzhugh, outgoing Director General of ILRI and Chair, Center Directors Committee (CDC), and Meryl J. Williams, Director General, ICLARM-The World Fish Center, and Chair-designate, CDC, provided the setting for the Centers' Forum.

Hank Fitzhugh presented a CGIAR perspective on regional research priorities and partnerships. He emphasized that the Centers' characteristic approach of being responsive to regional research needs and building strong partnerships was not new, but lay at the core of CGIAR efforts to promote sustainable agriculture. The Centers have built strong and enduring links with partners at the national and local level. More recently, CGIAR has been working closely with GFAR and TAC in setting regional research priorities. Three examples of strong regional partnerships are CONDESAN in the Andes, the African Highlands Initiative, and the Inland Valley Consortium in West Africa. There are many more, including in Asia. The important point is that CGIAR is guided by the absolute need to develop a shared vision and strategy with partners, to identify synergies, redundancies, and gaps, while seeking new opportunities. Participation in priority setting and joint planning exercises has generated good will and mutual trust, and above all, a strong sense of shared commitment.

Meryl Williams gave a prospective view of the Centers' contributions for 2002-2003. She said the Centers were geared toward making multi-scale contributions – at local, national, regional, and international levels in five main fields: (a) trade and development, (b) land, water and development, (c) biodiversity conservation, environment and development, (d) food security, poverty and development, and (e) human health and development. The Centers' research has shown the importance of trade as a driving force in development, and all the Centers' work on land-water linkages is making an important contribution in the lead up to the 2003 Third World Water Forum. The discussions underway on the International Undertaking shows how the Centers' research is linked to the international conventions, especially in ensuring the free exchange of germplasm. Other examples of how the Centers' research is contributing to the resolution of major issues include the newly-launched International Coral Reef Action Network, the land-use change and forestry practices review for the Intergovernmental Panel on Climate Change, the Millennium Ecosystem Assessment, and the 2002 World Summit on Sustainable Development. In particular, the Centers' work on nutrition is important, especially in the area of micronutrient deficiencies and biofortification. The special challenges posed to agricultural development by the HIV/AIDS pandemic is another area where agricultural issues can be linked to public health. As these examples show, the Centers are well-positioned to tackle some of the pressing development challenges of the 21st century.

Presentations by Centers followed, and are summarized below.

1. Integrated Natural Resource Management (INRM)

- **ICRAF: Agroforestry for Integrated Management of Tropical Watersheds**

Dennis Garrity presented an overview of ICRAF's efforts to improve the livelihoods of some of the most disadvantaged people in the world, those living in the upland watersheds of Africa, Asia, and Latin America. ICRAF and its partners (Chiang Mai University, and national programs in China, Laos and Vietnam) are working in mainland Southeast Asia, to characterize, at the regional level, major issues in upper watershed management with a focus on intensification of agricultural systems that currently are or have been based on slash-and-burn. This work involves exploring alternative tree crops for simple agroforestry on agricultural lands, understanding traditional complex agroforestry practices, and strengthening and expanding of community-managed forest tracts. In the Philippines, ICRAF is working with communities, finding out the kinds of species that they are interested in, bringing in improved germplasm, and working to develop markets for timber and fruit trees. Conservation practices such as buffer strips are helping to transform the landscape. A Landcare Movement, similar to the Australian model, is in place, and a 95 percent reduction in park encroachment has been achieved over the past five years. On a related theme, ICRAF's work in eastern Africa is looking at overcoming land degradation in the Lake Victoria and Nile basins.

- **IITA: Sustainable Resource Use in the Dry Savannas of West Africa**

Lukas Brader described IITA's research efforts focusing on cowpea-cereal intercropping and livestock integration in the dry savanna of West Africa. In the region, cropping is cereal-based with sorghum and millet dominating. Cowpea (and some groundnut) intercropping is common in over 90 percent of the fields, and these crops provide grain essential for food and income, including crop residues for livestock feed. Over 50 percent of the total ruminant livestock in West and Central Africa are found in the dry savanna, making crop-livestock integration a common feature of the farming system. Three packages were tested (Best Bet+ involving improved dual purpose cowpea and improved sorghum varieties, Best Bet which was same as BB+ but without fertilizer and insecticide inputs, and Local (L)). In Bichi village, the BB+ treatment yielded more than double the BB package and about 16 times higher than the Local package. The economic superiority of BB+ over L is clearly demonstrated by a marginal return of 1.84. These successes need to be scaled-up from study sites to the dry savanna domain as a whole. To improve agricultural production in a sustainable manner, IITA is exploring 'Best Bet' approaches for application in savanna, humid forest and mid-altitude zones of Africa.\

ICLARM: Global Fish Crisis Impacts Poor - There are Not Plenty More Fish in the Sea

Meryl Williams noted that the subtitle of her presentation resonates with a common saying, even as evidence mounts that fish supplies are not unlimited. As global fish stocks get depleted, the poor will suffer greatly. More than 50 percent of the world's fish stocks are fully exploited, and 70 percent are in need of urgent management. Recent calculations show that every square kilometer of the continental sea shelves are trawled at least twice per year. In developed countries, many fish stocks are over-fished, and some have collapsed. As a vocation, fishing is on the decline in developed countries:. In the mid 1980's, the fish production in developing countries surpassed that in developed

countries and shortly thereafter the balance of trade in fish swung from the developed to the developing countries. Now, for example, about half the fish eaten in Europe is imported. In the developing countries, the poor depend on fish for food, income, and nutrition. Asia produces more than half the fish in the world and 90 percent of the aquaculture products. And in southeast Asia, a large part of the population lives in coastal areas. With partners in each country, ICLARM reviewed the status of coastal fisheries stocks in 8 Asian countries (India, Sri Lanka, Bangladesh, Thailand, Malaysia, Indonesia, Vietnam and Philippines) and found that nearly all are seriously over-exploited. ICLARM and partners are developing goals for the sustainable and equitable exploitation of the fisheries for each country, looking first at the issues and then looking at interventions that address them. An important intervention is to halt the ‘tragedy of the commons’ by limiting entry to fisheries and establishing fishing rights. Enhancing stakeholder awareness and participation remain critical components of intervention strategies, as is strengthening and upgrading institutions.

- **IWMI: Dialogue on Water, Food and the Environment**

Frank Rijsberman briefed participants about the “Dialogue on Water, Food and Environment,” and how it seeks to bridge the gap between the food and environment sectors by way of an open and transparent dialogue. It also seeks to improve the linkages between sectoral approaches that dominate policy making and implementation, particularly at the national level. Partnership is the operative term, and ten prominent organizations have come together to support the initiative. It is a growing partnership, and will play a large part in tackling one of the most critical problems of the 21st century, that of bridging the world of agricultural and environmental communities and dismantling the narrow and sectoral approaches that are hindering the sustainable management of the earth’s precious water resources. Poverty reduction is the sharp end of the dialogue, and IWMI is hosting the dialogue Secretariat. Dialogue activities will be placed on the international agenda at key meetings such as Bonn Freshwater Conference, the World Summit on Sustainable Development, Third World Water Forum, ICID Congress, and meetings of the United Nations Conventions. Dialogue activities are expected to culminate at the 4th World Water Forum slated for March 2006 in Montreal, Canada.

2. INRM and Biodiversity

- **CIAT: Climate Change, Spatial Analysis and the Poor**

Simon Cook’s presentation focused on the questions why climate change is a problem, how regional information can help predict impacts, how local information can help farmers adapt, and how to get information to where it is needed the most. Climate change is expected to have a wide range of negative impacts, that will be episodic and hard to predict. Helping poor farmers to cope by reducing uncertainty lies at the core of CIAT’s response, which is to try to predict globally to help people adapt locally. CIAT is using climate modeling and coupling that with other simulation models to identify risks to crop production in diverse areas such as Brazil and East Africa. A network of

information flows to farmers is planned, and new opportunities will open up with the expansion of the Internet. CIAT's overall vision is of a risk reduction system that relies on a strategic network of global information, community-based network of local information, and a hybrid system of information flows. Grameen Bank's example of providing telecommunication services to the poor is outstanding. The challenge is not so much about the costs of information getting down to farmers, rather it has not yet been possible to work out the true value of such information, and how it can accelerate the fight against poverty, hunger, and environmental degradation.

- **IFPRI: Spatial Frameworks for Policy Analysis – Growth, Environment, and Poverty Linkages in Uganda**

Stanley Wood's presentation focused on how spatial analysis tools, particularly in a policy context, can help foster strategies that combine economic growth and environmental objectives. USAID approached IFPRI to develop a new strategic plan for their investments in Uganda for the period 2002 through 2007, with a focus on increasing welfare through the agricultural sector. By all definitions, Uganda is a rural country – 85 percent of its population lives in rural areas, and about 96 percent of the 8 million poor people live in these rural areas. Livelihoods have not kept pace with population increases, and most of the growth in the agricultural sector has been through expansion, not productivity growth. This is threatening ecosystems that provide goods and services, including environmental services. IFPRI put together a spatial framework that brings together agriculture-based economic growth and environmental objectives. Information on livelihood strategies was collected from 107 communities, including resource management use within those communities. This work is generating a lot of interest among donors and policymakers and will help to structure the debate about targeting investments.

- **CIMMYT: Global Genetic Insurance – On-farm Benefits for the Resource Poor**

Timothy Reeves' presentation focused on how use and management of genetic diversity can benefit the poor. Leaf wheat rust is a devastating fungal disease that affects poor farmers. CIMMYT has been providing global genetic insurance for wheat by following a unique strategy that does not look for complete resistance (because major genes that have strong resistance can break down with devastating effects) but where plants still get rust and yield losses that are zero to minimum. This is called durable resistance, and is based on genetic diversity and new genes. Very conservative estimates show that for the \$233 million invested in this research, gross benefits were \$7.78 billion, providing a benefit cost ratio of 33 to 1. CIMMYT identified 6 of the 7 genes that contribute to durable resistance. Genetic diversity also contributes to nutritional security, or biofortification. An example is quality protein maize (QPM) with higher content of lysine and tryptophan, so important for women and children. CIMMYT and its partners have developed new varieties of maize that are performing well under drought and low nitrogen conditions, having a tremendous impact on thousands of farms in Southern Africa. In addition, work on drought tolerance in wheat is providing handsome returns. Wheat yield increase in irrigated areas during 1989 to 1995 averaged 1 percent per year. But in drought-prone areas, wheat yield increases in the order of 3 percent per year have

been achieved, and in high-temperature areas, it has been 2.5 percent. In all this work, genetic diversity is having a tremendous, positive impact on the lives of resource-poor farmers.

- **IPGRI: Supporting the Management of Crop Diversity in Agroecosystems**

Devra Jarvis asked the provocative question: why support the management of crop diversity and agrobiodiversity? Simply because crop genetic diversity is one of the few resources available to poor farmers to ensure sustainable agriculture. Using agricultural diversity for development involves building national capacities, supporting crop diversity assessment and adaptive management in agroecosystems, and mainstreaming agrobiodiversity into agricultural development. An example from Burkina Faso shows that the only way farmers can deal with unpredictable rainfall is by planting diverse varieties of sorghum. In Nepal, farmers use locally adapted diverse varieties to save on fertilizers and pesticides, thereby reducing costs and improving ecosystem health. Another important part of the equation are seed systems. Informal seed systems are very important for farmers' livelihoods: in Nepal, less than 3 percent of rice was purchased from the formal sector. The figures are similar for sorghum in Burkina Faso (less than 5 percent) and Morocco (less than 3 percent of food legumes and less than 13 percent for durum wheat). IPGRI has developed a training guide that describes tools and methods to support the management of crop diversity in agroecosystems for the ultimate benefit of the poor. For wider dissemination, the guide is being translated into Arabic, French, and Portuguese.

3. Innovative Partnerships

- **ISNAR: Innovative Partnerships among Centers**

Stein W. Bie outlined how the CGIAR-supported Centers are working together in the areas of intellectual property rights, developing a common learning and knowledge-sharing agenda, and increasing farmer-scientists dialogue and access to information through the innovative use of FM radio broadcasts. On behalf of the 16 Centers supported by the CGIAR, ISNAR has set up a Central Advisory Service on Intellectual Property (CAS) that strengthens Centers' ability to handle IP-related issues and allows the CGIAR to fulfill its role as a provider of global public goods. Increasingly, this information will also be made available to NARS. The Centers will themselves finance this facility for the next two years. ISNAR is harnessing the power of the Internet to prepare learning materials and expand partnerships. Ten large on-line training modules have been developed, and 2,783 downloads were recorded as of October 1, 2001. Preliminary findings indicate significant increases in downloads, particularly from Africa (24%), Asia (16%), and Latin America (21%). The popular "How to Write a Winning Proposal for INCO-Dev" has assisted the formation of 28 consortia of African and European scientists for submission of competitive grant proposals to this European Commission facility. The development of rural radio as a two-way tool for dialogue between farmers and agricultural research scientists has been piloted in Cameroon, Mali, Ghana, and Uganda with strong cooperation from FAO and Canada.

- **ICARDA: Value Obtained from Innovative Partnerships**

Adel El-Beltagy showed how research and development at ICARDA is based on innovative partnerships, a dynamic research continuum between NARS, national programs, private sector, civil society, farmer's unions, progressive farmers, and communities. Describing the community approach at ICARDA, he showed how a Negotiated Action Plan is developed after validation by all stakeholders, its subsequent transformation into a Community Development Plan, and the steps leading to new technologies that promote food security, improved natural resource management, and combat desertification. ICARDA collaborates with 12 CGIAR-supported Centers, and serves as the CGIAR focal point in meetings of the U.N. Convention to Combat Desertification (UNCCD). Located in a region vulnerable to socio-political upheavals, ICARDA and its staff representing 42 nationalities is a dynamic global research alliance that is fully committed to producing public goods in the service of agricultural regions of the dry areas.

- **IRRI: Food Security by Design**

Ren Wang introduced Gurdev Khush who spoke about how IRRI and its NARES partners redesigned the rice plant for the irrigated tropical lowlands aimed at achieving food security in Asia. The New Plant Type (NPT) has short, stiff culms which bear erect, moderately sized, dark green leaves that use sunlight efficiently, is responsive to fertilizer, and permits double cropping. Dubbed 'super rice' by the media, the latest yield data of 42 improved NPT lines show that 14 lines outperformed the high-yielding check varieties, with the best performing NPT having a yield advantage of 1.7 tons/ha, and another 5 lines showing a yield advantage of more than 1 ton/ha. Throughout the developmental stages, the International Network for the Genetic Evaluation of Rice (INGER) distributed NPT lines widely in 90 rice-growing countries, an excellent example of CGIAR partnerships. Placing things in perspective, Gurdev Khush noted that current hybrids have yields of 10.5 tons/ha, while future NPT hybrids will have yields of 11 to 11.5 tons/ha. He noted that the decoding of the rice genome is opening up new opportunities where scientists can provide consumers with NPTs with different 'specs' that would call for the plant to be GMO-free or to be transformed with, for example, genes that confer the vitamin A trait. Speaking at the culmination of a 34-year career at IRRI, Dr. Khush noted that by 2005, NPTs will be planted in most of the rice-producing countries.

- **CIP: Broadening Boundaries in Agriculture – Impact on Health, Habitat and the Environment**

Hubert Zandstra presented three examples of partnerships – VITAÁ, Global Mountain Program (GMP), and Virus-Free Sweet potato in China – that are helping broaden the scope and range of CIP research. The VITAÁ partnership is combating vitamin A deficiency in Sub-Saharan Africa and South Asia by supplementation programs, fortification of foods with micronutrients, and improvement of dietary quality through diversification. Beta-carotene rich sweet potatoes, characterized by their orange flesh,

are one of the most promising plant sources of Vitamin A. A one-half cup serving can satisfy about 50 percent of the daily Vitamin A requirement of a young child. CIP's GMP is addressing the needs of areas that are experiencing environmental degradation and losses of habitat, genetic diversity, and indigenous knowledge. The challenges are highlighted in Chapter 13 of Agenda 21, and eight Future Harvest Centers are GMP partners. China is the world's largest producer of root and tuber crops, and virus-free sweet potato has improved the livelihoods of 7 million farmers in China. CIP has provided virus cleanup techniques that are benefiting Shandong province which produces 17 million metric tons of Sweet potato and accounts for 12 percent of global production.

4. Poverty Reduction

- **ILRI: Livestock Disease and the Poor**

David Taylor showed how Lira's research on animal agriculture is helping to better understand the important role of livestock in improving livelihoods of the poor. Using innovative approaches, ILRI is mapping poverty and its relationship to livestock keeping worldwide. High resolution spatial analysis is helping predict the spread, associated with climate change, of vector borne livestock diseases such as trypanosomiasis. Such information should enable design and targeting of more effective disease control strategies. Of particular interest are diseases that threaten and degrade livestock assets of poor households and limit market opportunities. Demand for meat and milk in developing countries will double by 2020, and poverty-reduction policies and strategies will need to focus on helping the poor build livestock assets, access markets, generate income, and improve household health and nutrition. He cited a new study where of the 1709 organisms known to cause diseases in humans, 832 are zoonotic, i.e. they are naturally transmitted from animals to humans. Zoonotic infections exact a particularly heavy toll on children by limiting physical and cognitive development. The risks from zoonotic infections are increased for HIV/AIDS patients. Control of zoonotic infections, development of new technologies including rapid diagnostics and vaccines will help the poor to participate in and benefit from the livestock revolution. As ILRI's research shows, diseases know no boundaries and, in addition to ethical obligations, it can be cheaper and more effective to control infections in animal hosts than to await outbreaks in humans.

- **CIFOR: Tropical Forests and Rural Livelihoods: The Role of Research**

David Kaimowitz began by saying that CIFOR is not about forests, it is about people. CIFOR's vision seeks to use forests to favor the poor. More than 1.6 billion people depend on forests, and about 60 million indigenous people are almost wholly dependent on them. Because the poor rely on forests for food, medicine, shelter, fodder, and to replenish soil fertility, CIFOR sees forests as safety nets. CIFOR is helping to promote forest reform and making it work for the poor. Devolution of control to the poor is happening, and countries of the Amazon have titled over 1 million sq. km as indigenous territories. In China, 57 million households have received rights to plant trees on wasteland. CIFOR and partners in 23 countries are analyzing 60 success stories to see how people's living standards can be improved while conserving forest resources. In the

forest sector, corruption, weak policies, bad governance, all hurt the poor who are the most vulnerable. CIFOR aims to be a source of credible, balanced and scientifically-sound information on forestry issues and believes that telling the truth will ultimately help the poor.

- **WARDA: People, Food and Livelihoods – A Sahelian Experience**

Kanayo Nwanze presented WARDA's efforts to improve livelihoods in the harsh environment of the Sahel. The river valleys of the Sahel have an abundance of sunshine and water, and rice is a prominent crop. WARDA's vision recognizes that people, food and livelihoods should be the basis of technological change in Sub-Saharan Africa, based on partnerships. The most outstanding variety, Sahel 108, released for the Senegal River valley has a short cycle that frees up land for double-cropping, and it has a 10 percent yield advantage over traditional varieties. Sahel 108 and another variety, Sahel 202, are rapidly replacing traditional varieties, and today make up between 32 and 66 percent of rice in Senegal, Mauritania, and the Gambia, with yields of up to 10 tons/ha. Furthermore, WARDA's New Rice for Africa (NERICA) has been moved from the rainfed uplands to the irrigated fields of the Sahel, with 20 percent higher yields compared to local varieties. An African Rice Initiative, also known as the NERICA Consortium for Food Security in Sub-Saharan Africa has been established. Participatory varietal selection (PVS) and community-based seed systems (CBSS) are being introduced for the benefit of rice-growing countries in Eastern and Southern Africa.

- **ICRISAT: Grey to Green Revolution through Science with a Human Face: Impact on Poverty Reduction**

William Dar's presentation showed that the map of poverty globally is congruent with that of the semi-arid tropics (SAT). ICRISAT's research on chickpeas, fertilizer applications, and restoration of seed supplies is making a positive difference in the SAT. Chickpea, a crop well suited to the dry tropics, uses only one-twelfth the amount of water required by rice to produce a single unit of grain. Working in partnership with ICARDA, ICRISAT has given farmers in central and southern India an alternative to tobacco and cotton which were ruining them with high insecticide costs. In ICRISAT's home state of Andhra Pradesh, chickpea has seen a 20 percent increase in production each year since 1989. This crop is now being grown in the Barind (the driest and least fertile region of Bangladesh) and drought-prone prairies of Canada. Sahelian sandstorms cause losses of precious topsoil and ICRISAT's research is helping to make effective use of expensive fertilizer. 'Microdosing' or applying six grams of fertilizer measured through a bottle cap is boosting millet yields 50 to 100 percent, and increasing food security. ICRISAT has restored seed supply systems in three countries affected by natural and civil catastrophes: Mozambique, Somalia, and Sudan.

**STATEMENT ON THE
FOOD AND AGRICULTURE ORGANIZATION (FAO)
INTERNATIONAL UNDERTAKING ON PLANT GENETIC RESOURCES FOR
FOOD AND AGRICULTURE (IUPGR)
NEGOTIATIONS**

At its Annual General Meeting 2001 in Washington D.C., the members of the Consultative Group on International Agricultural Research (CGIAR) were apprised of the current status of negotiations regarding the International Undertaking on Plant Genetic Resources for Food and Agriculture (PGRFA). The CGIAR members expressed their unanimous opinion that the successful conclusion of the IU is of paramount importance especially for the future work of the CGIAR Research Centers

The Chairman of the CGIAR and all the members and stakeholders call upon all parties to the negotiations to resolve the remaining issues as expeditiously as possible in order to create an international policy environment that is fully supportive of local, national and international efforts to conserve and use PGRFA for ensuring food security, helping to eradicate poverty and protect the environment.

In adopting this resolution, the members of the CGIAR recognized the ongoing need for the CGIAR to maintain its ability, through the Genetic Resources Policy Committee (GRPC) or a similar body, to keep abreast of the evolving policy environment and analyze the implications for the CGIAR and to advise on appropriate responses and action by the Centers with regard to maintaining their genetic resources for the future of mankind.