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# the cgiar at a glance



In 2003, CGIAR members contributed \$381 million—the single largest investment to generate public goods for the benefit of poor agricultural communities worldwide.



The Consultative Group on International Agricultural Research (CGIAR) is a strategic alliance of countries, international and regional organizations, and private foundations supporting international agricultural research Centers that work with national agricultural research systems, the private sector and civil society. The alliance mobilizes agricultural science to reduce poverty, foster human well-being, promote agricultural growth and protect the environment. In 2003, CGIAR members contributed \$381 million—the single largest investment to generate public goods for the benefit of poor agricultural communities worldwide.

More than 7,600 CGIAR scientists and staff work within the CGIAR alliance. Their research addresses every critical component of the agricultural sector, including agroforestry, biodiversity, food, forage and tree crops, environment-friendly farming techniques, fisheries, forestry, livestock, food policies and agricultural research services. Specifically, the research targets the special needs, crops and ecologies of poor agricultural communities worldwide.

The CGIAR has five areas of focus:

- **Increasing productivity** of crops, livestock, fisheries, forests and the natural resource base

- **Strengthening national systems** through joint research, policy support, training and knowledge-sharing
- **Protecting the environment** by developing new technologies that make more prudent use of land, water and nutrients and help reduce the adverse impacts of agriculture on ecosystems
- **Saving biodiversity** by collecting, characterizing and conserving genetic resources (the CGIAR holds in public trust some of the world's largest seed collections that are available to all)
- **Improving policies** that affect agriculture, food, health, the spread of new technologies, and the management and conservation of natural resources

Africa is a priority for CGIAR research.

The CGIAR alliance is open to all countries and organizations sharing a commitment to a common research agenda and willing to invest financial support and human and technical resources. In 2003, the Gulf Cooperation Council joined the alliance, and more members are expected in the near future.

# message from the chairman and director: an evolving cgiar

The year 2003 marked a significant period in the CGIAR's global effort to rally quality science in the service of poor farmers.

CGIAR has long recognized that science-for-development is about achieving beneficial impacts for people and their livelihoods, as well as for the ecosystems that sustain all life.

Accordingly, impact is the *leitmotif* for this year's annual report.

The stories that follow provide snapshots of knowledge partnerships geared to local impacts. They demonstrate the CGIAR's catalytic role in bringing together partners to generate innovations that deliver real benefits to poor people. The stories also reveal the different ways in which impact is measured and valued. A substantial report commissioned by the Standing Panel on Impact Assessment (described at page 13) concludes that every dollar invested in the CGIAR has generated \$9 worth of additional benefits in the developing world. In interviews conducted in the central highlands of Kenya, Nelson Maturi, a low-income farmer, said that gaining membership in a local dairy goat association helped increase his knowledge and income, enabling him to send all of his children to school.

Notable achievements by CGIAR scientists during 2003 include successes in rehabilitating agriculture in conflict-ridden areas; mitigating natural disasters; improving the productivity of food crops, fisheries, forests and livestock; and fostering improved policies that increase food availability while enhancing trade opportunities. It is a measure of their success that in 2003 alone over 124 CGIAR scientists received awards for scientific excellence, science communications and public service.

Despite these achievements, much remains to be done, especially in Sub-Saharan Africa. The CGIAR and its partners are complementing their focus on impact by developing new ways of working.

To increase effectiveness, we have adopted an evolutionary approach to reform. We recognize that, while change may be crucial to effectiveness and survival, so is the need for continuity in research activities directed at achieving balanced development.

In keeping with the evolutionary approach, Boards of several CGIAR Centers have begun exploring how to better coordinate their activities, including streamlining research and improving governance. Even as these discussions unfold, it is clear that the CGIAR must maintain laser-like focus on its core competency: harness science for fostering growth that increases poor people's incomes and promotes sustainable development through new technologies and policies that reduce agriculture's adverse footprints on the environment.

In 2003, the Group recommended that IFPRI absorb ISNAR's core programs and relocate them to Africa. After extensive consultations, many conducted in virtual mode, we made substantial progress, and plans are on track for the ISNAR program to begin functioning from Addis Ababa under IFPRI governance. This rearrangement will facilitate operational efficiencies and effectiveness.

The CGIAR is expanding its interaction with its partners. At the 2003 Annual General Meeting hosted by the Government of Kenya, we welcomed the Gulf Cooperation Council as our sixty-third Member, a tally that now includes 25 developing and 22 industrialized countries. The CGIAR is a true South-North partnership. In Nairobi, we launched the Innovation Marketplace to promote,



*Ian Johnson, Chairman, CGIAR,  
visits Huancayo, Peru.*



*Francisco Reifschneider, Director CGIAR, with Syrian farmer Mr. Ibrahim Saliem, from Kesabia village, Aleppo, Syria.*

**The stories that follow ... demonstrate the CGIAR's catalytic role in bringing together partners to generate innovations that deliver real benefits to poor people.**

expand and strengthen relationships with civil society organizations while catalyzing innovation across the CGIAR system. Three pilot Challenge Programs are off to a good start. The Gates Foundation became a major contributor to HarvestPlus—the biofortification Challenge Program. Austria returned to the CGIAR as a contributing member, Canada doubled its contribution, and the United Kingdom has greatly increased its support. We thank our investors for their confidence in the CGIAR's family of scientists.

Globally, all eyes are focusing on the development needs of Sub-Saharan Africa. Two Task Forces have been formed. One is looking at achieving programmatic alignment of CGIAR efforts, and the

other is developing structural and organizational options for consideration by the Group. A world-class Science Council has been appointed and will help steer the scientific effort to maximize development impacts.

At the CGIAR, impact is everybody's business. In its march forward, the CGIAR affirms its commitment to make the world a better place, especially for those who most need the benefits of science.

Ian Johnson  
*CGIAR Chairman*

Francisco J. B. Reifschneider  
*CGIAR Director*

# enhancing the quality of cgiar science: a science council perspective

As part of CGIAR reforms, the Technical Advisory Committee (TAC) of the CGIAR was transformed into a Science Council (SC) in January 2004, with an interim Science Council (ISC) operating from January 2002 until September 2003. During this transition period, the ISC was chaired by Emil Javier with TAC members serving as ISC members. The ISC met twice during 2003 and had a busy and productive final year implementing its advisory responsibilities. The ISC was ably supported by ISC Secretariat staff and received full cooperation from the CGIAR Members, CBC, CDC, Centers, the Global Forum on Agricultural Research (GFAR), Regional and Sub-Regional Organizations, and the CGIAR Secretariat.

This contribution highlights accomplishments and progress in the principal areas of the ISC's responsibility and now taken up by the Science Council:

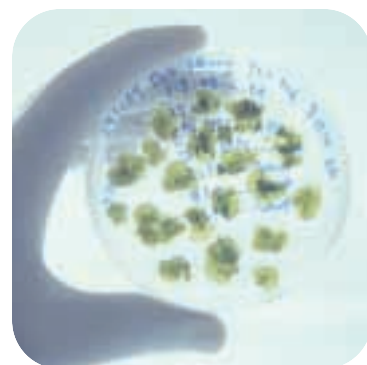
- Developing policy, priorities and strategies through strategic considerations in the external environment
- Ensuring the relevance and quality of science
- Evaluating challenge programs
- Commenting on Center 2004-06 Medium-Term Plans and 2004 Financing Plans
- Assessing the CGIAR System's impact (see related story on p. 13)

Following completion of the CGIAR's new Vision and Strategy, TAC/ISC resumed its work on science policy and priorities and strategies through strategic considerations in the external environment likely to influence the System's future priorities and strategies and research portfolio. During 2003, the ISC continued its efforts to facilitate the implementation of the seven strategic planks of the CGIAR's Vision and Strategy. It focused on designing and implementing a new approach to

CGIAR priority setting, involving extensive virtual consultations with global stakeholders and scientists, building on its work on regional approaches to research planning with regional organizations and Centers. In terms of strategic reviews of topics, special attention was paid to biosafety, food safety, social research, water management, NRM and abiotic stress genomics.

During 2003, external reviews of Centers (ISNAR, ICRISAT and IPGRI), and Systemwide Programs and stripe reviews of themes (Capacity Building) that cut across Center mandates have been a principal means by which ISC fulfilled its responsibility to assure the relevance and quality of CGIAR science. The ISC also reviewed "Improving Livelihoods and Natural Resources Management in Sub-Saharan Africa," a Challenge Program put forward by the Forum for Agricultural Research in Africa (FARA). The ISC continued its deliberations on the overall monitoring and evaluation processes in the CGIAR and prepared a document entitled "Changing Monitoring and Evaluation in the CGIAR." The TAC/ISC had been working on new approaches to monitoring and evaluating Center performance for two years. The paper, which benefited from broad consultations among the members, the CBC and the CDC, was discussed and approved at ISC/TAC 84 in June 2003.

The Chair and members of the new Science Council were confirmed at AGM 03. They were identified through a global search led by Dr. Mohamed Hassan, Executive Director of the Third World Academy of Sciences. The Science Council comprises six eminent scientists from the North and the South, and I am privileged to serve as Chairman. Three members of the ISC agreed to serve for one additional year to provide continuity. The primary role of the Science Council is to



“... the Science Council plans to complete the review of CGIAR priorities and strategies while moving forward with strategic studies related to food safety, ethics and science, conservation of animal and fish genetic resources, and international public goods....”

enhance and guard the relevance and quality of science in the CGIAR System by:

- Advising the CGIAR on strategic scientific issues relevant to the Group's goals and mission
- Providing independent, credible and authoritative advice on scientific issues relevant to the international agricultural research system
- Developing partnerships with the wider scientific community for the benefit of international agricultural research

The Science Council will function as a committee of the whole. However, most of its activities will be facilitated through four Standing Panels on Priorities and Strategies, Monitoring and Evaluation, Impact Assessment, and Mobilizing Science. The Standing Panels consist of a Science Council member who serves as chair and two members appointed from outside the Science Council. Three of the four panels each have one additional Science Council member. Given the complementarity of their functions, the Standing Panels will interact closely with each other and

help maximize the Science Council's ability to fulfill its responsibilities.

In 2004, the Science Council plans to complete the review of CGIAR priorities and strategies while moving forward with strategic studies related to food safety, ethics and science, conservation of animal and fish genetic resources, and international public goods within the concept of intellectual property rights. It plans to follow up on opportunities to organize genomics research in the CGIAR more effectively and efficiently. The Science Council will formulate a new evaluation model for the CGIAR and track changes in CGIAR science based on the medium-term plans of Centers, Systemwide Programs and Challenge Programs. Finally, the Science Council will develop a strategy for mobilizing science, prepare annual reports on the state of global agricultural research, and begin planning for an international science symposium in 2006.

Per Pinstруп-Andersen  
*Chairman*  
*CGIAR Science Council*

# perspectives on the world bank-cgiar partnership

The World Bank has played multiple roles in the CGIAR, as founder, committed supporter and cosponsor. Given the dire forecasts of the 1960s and 1970s that many developing countries would succumb to famine, the Bank was asked to create a consultative group for international agriculture to ensure that the developing world would capitalize on the then-scientific advances in rice and wheat and that a consistent pipeline of science-based technologies would be available to developing country farmers. The Bank responded to the challenge with the help of the Food and Agriculture Organization (FAO), the United Nations Development Programme (UNDP), the Ford Foundation, the Rockefeller Foundation and others, and founded the CGIAR. Today we can all look back at a decades-long successful partnership that has been described by President James D. Wolfensohn as “one of the oldest and most significant and effective partnerships we have.”

Much has changed since the CGIAR was founded, both within the CGIAR and in the development community. CGIAR Membership has grown from 18 at its founding to 63 today, in and of itself a testimony to the success of the system. However, the climate for the CGIAR has not always been easy. Since the early 1980s the specter of famine has been removed by a downward trend in food prices and an upward trend in overall food production. Despite the persistence of poverty in the rural areas of the developing world, the trend in donor assistance to agriculture has been sharply downward, although there are positive signs of a reversal in this trend.

The new millennium brought a new focus on the world's poorest citizens with the setting of the Millennium Development Goals. These goals cannot be achieved without a focus on rural poverty

and agriculture, which is the engine of economic growth in rural areas of most developing countries. Thus the CGIAR's role today is as important as it was at its launch in 1971.

An effective partnership in today's new development assistance paradigm, however, requires an evolving CGIAR system, one responsive to the changing needs of farmers, the drive for results, changing operational structures and environments in which it finds itself. The World Bank applauds the CGIAR's willingness to respond to the new environment, to take the difficult decisions on reforms and to operationalize them. These efforts are already bearing fruit: new challenge programs are mobilizing resources—financial, human, intellectual, and technical—that bring together a variety of partners who have not traditionally worked closely with the CGIAR. The HarvestPlus program on biofortification is a prime example of using science to fight poverty: breeding crops with higher yields to improve the incomes of farmers and with enhanced mineral and micronutrient densities to mitigate the scourge of malnutrition. Effective implementation of these reforms will ensure that the CGIAR remains on the cutting edge of scientific discovery for the benefit of farmers in the developing world.

The World Bank has recently revised and launched its own agricultural and rural development strategy. The strategy's focus puts the rural poor in the driver's seat and emphasizes working in partnership with them and the rest of the development community. The CGIAR was an important partner in the formulation of the strategy, with six CGIAR Centers collaborating on regional workshops to articulate the needs and role of agriculture in the rural development process. Our goal is to forge even closer ties as we march forward in the war





**“The CGIAR is, and will continue to be, an important partner with the World Bank as together we strive for successfully implementing our strategy to achieve the goal we all share—the eradication of rural poverty in the developing world.”**

on rural poverty. We need to better capture the synergies resulting from the unique blend of different but complementary specialist skills within the Bank and the CGIAR.

One recent initiative provides a good illustration of these synergies. Training programs for World Bank agriculture and rural development staff have been undertaken in partnership with CGIAR Centers, CIMMYT and ICRISAT. This partnership has enabled World Bank staff to see agricultural science for development in action and to make use of extensive field visits during training. CGIAR Center staff have gained exposure to broader policy considerations, at both the macro and micro levels, that are inherent in the adoption and diffusion of innovations in agricultural science.

Sharing information is vital for quality science and achieving impact. Staff exchange programs between the World Bank and the CGIAR are a particularly effective way to build relationships and foster more in-depth understanding of the operating environments, constraints and opportunities each institution faces.

The CGIAR is, and will continue to be, an important partner with the World Bank as together we strive for successfully implementing our strategy to achieve the goal we all share—the eradication of rural poverty in the developing world.

Kevin Cleaver  
*Director, Agriculture and Rural Development  
Department, The World Bank*

## building prosperity through partnership: india and the cgiar



The Indian Council of Agricultural Research (ICAR) administers one of the world's largest National Agricultural Research Systems (NARS). Its collaboration with the CGIAR represents one of the longest and most extensive partnerships. Indian NARS have played a significant role in transforming India's food situation, from an era of chronic deficits to surpluses and food grain exports. This success story, referred to as the "Green Revolution" in India, was made possible by CGIAR Centers such as CIMMYT and IRRI.

India became a CGIAR Member in 1981, although its involvement dates back to the origins of CGIAR. In addition to serving as the headquarters of ICRISAT, established in 1972, India hosts regional and subregional offices of CIMMYT, CIP, IFPRI, IPGRI, ILRI, IRRI, IWMI and the World Agroforestry Centre. The presence of CGIAR Centers in India reflects the mutual trust that underlies the India-CGIAR partnership. Some benefits of the India-CGIAR partnership include the following:

### ■ **Managing Natural Resources Sustainably:**

The Rice-Wheat Consortium for the Indo-Gangetic Plains, established in 1994, has generated resource-conserving technologies such as raised-bed planting, zero-till agriculture and laser leveling. Zero-till agriculture alone saved nearly \$23 million during 2002-03. These technologies led to savings of irrigation water, fertilizer and seeds, as well as to significant improvements in soil health.

■ **Crop Improvement:** In collaboration with CIMMYT, Indian NARS have released four Quality Protein Maize hybrids (Shaktiman 1, 2, 3 and 4). The ICAR-ICRISAT partnership has resulted in the release of over 100 improved varieties of sorghum, pearl millet, chickpea, pigeonpea and groundnut in India. India participates in IRRI's Asian Rice Biotechnology Network (ARBN) and CIMMYT's Asian Maize Biotechnology Network (AMBIONET).

■ **Pulses and Oilseeds:** India is a major producer and consumer of pulses and vegetable oil. ICRISAT has made significant contributions, including developing improved groundnut varieties (ICGS-37, ICGS-44, ICGS-76, and ICGV-86325), and short-duration Pragati pigeonpea, which has facilitated double-cropping, nearly doubling yields and increasing farmer incomes. Two chickpea varieties released in India are boosting production, while integrated pest management techniques for pigeonpea and groundnut have substantially reduced insecticide use by up to 100 percent on some fields.

■ **Tuber Crops:** Exchange of potato genetic material between ICAR and CIP led to development of two high-yielding, disease-resistant potato varieties (Kufri Chipsona-1 and Kufri Chipsona-2). Scientists from the Central Potato Research Institute have received training at CIP on DNA fingerprinting and marker-assisted selection.

India is a member of the International Coconut Genetic Resources Network (COGENT), and an International Coconut Genebank (ICG) has been established. Similarly, through the IPGRI-INIBAP exploration program in northeastern India, new genetic material of banana has been identified. ICAR and WorldFish Center are focusing on sustainable exploitation of coastal fish stocks, genetic improvement of carp species and DNA fingerprinting. India also participates in the Challenge Program on Water and Food.

We look forward to strengthening the India-CGIAR partnership for the benefit of poor farmers.

Mangala Rai

*Secretary, Department of Agricultural Research and Education and Director-General, Indian Council of Agricultural Research, Ministry of Agriculture, Government of India*

**The India-CGIAR partnership is based on a common vision, mutual interest and shared expertise.**

# engaging members to realize the CGIAR vision

“Good governance, management and corporate behavior can all enhance our ability to achieve beneficial impacts.”



The Committee of Board Chairs (CBC) endorses and reinforces the concept that impact is the business of every element of the CGIAR System—donors and investors, the Science Council, stakeholders, beneficiaries, and the Centers that together have the capacity to generate knowledge-based products and technologies that create beneficial impacts. Consequently, it is the Boards of Trustees that carry the ultimate responsibility for ensuring that the Centers under their charge, both individually and collectively, generate impact.

In its work, CBC helps the CGIAR System to generate impact by listening to signals from the System's diverse elements and beyond, and by facilitating collaborative work and synergies between the Centers and their partners to maximize returns on investment.

Specifically, working with the System Office we have contributed to greater harmony within the System by the following:

- Developing model guidelines for grievance procedures
- Revising the process for the nomination of Board Members to give CGIAR Members greater input into their selection
- Establishing terms of reference for a comprehensive study of remuneration packages across the System
- Developing a new board orientation program in recognition of the changing needs of governance in the System

These advances will all contribute directly and indirectly to the impact of the CGIAR System. Good governance, management, and corporate behavior can all enhance our ability to achieve beneficial impacts.

We also express our appreciation of two particular initiatives that will enhance the impact of the System.

- Finalization of the Science Council, arguably the key driver of the System. The Council has our encouragement and support as it performs important tasks in the reform process, including evaluating Challenge Programs, developing performance indicators and assessing impacts.
- Completion of the World Bank Operations Evaluation Department's assessment, "The CGIAR at 31," which is a particularly powerful and useful report for the System. The reforms recommended would ultimately form part of the ongoing efforts to develop performance indicators suitable for all components of the System.

We affirm our desire to fully engage the membership, and indeed the System as a whole, in vigorous and productive exchanges so that the Centers can contribute fully to the realization of the vision for the CGIAR System.

John Vercoe  
*Chair, Committee of Board Chairs (2003)*

# enhancing efficiency to maximize effectiveness

The Center Directors Committee (CDC) continued to play a leading role in contributing to the process of substantial change for enhanced efficiency and effectiveness of the CGIAR. We embraced a programmatic approach to research planning as a major pillar of the change process, and we contributed to the development of pilot Challenge Programs as a model for expanded partnerships and enhanced quality of System outputs.

Coherence and harmonization of initiatives played important roles and accounted for much of the CDC's time and attention. The Committee developed a code of conduct to optimize collaboration and maximize synergies among the Centers. The Committee also focused on ways to reduce costs by using common services and avoiding duplication of effort across the Centers. This assumed greater importance due to the increasing restrictions on investor funding and the decreasing proportion of contributions to the core budgets of the Centers.

The CDC took active measures to streamline and coordinate public awareness and resource management efforts. We closed the Public Awareness and Resource Mobilization Committee (PARC), with the expectation that this work would now be accomplished by the Marketing Group, and we formulated an Integrated Communications and Resource Mobilization Strategy. A code of conduct for approaching investor agencies for funding was also developed.

In response to requests from partners and investors, we are actively pursuing a policy of

decentralization. The key arguments to decentralizing activities are to accomplish the following:

- Work closely with national programs and sub-regional organizations to respond to regional, subregional and national priorities
- Bring Center scientists and programs closer to the field to pursue applied research and achieve impact

During 2003 the CDC continued discussions on refining the concept of performance indicators as a means to increase the efficiency and effectiveness of our activities. We have scheduled implementation to start in 2005, after the contributing Members of the CGIAR have agreed upon unified performance indicators for the entire System.

The CDC remains focused on ensuring maximum support to all Centers and exploring ways in which to bring additional new financial support to both the Centers and to the Challenge Programs. We look forward to lessons learned from the initial funding of the Challenge Programs.

We will continue serious efforts to work closely with various regional fora in identifying the local, regional and national priorities for agricultural research for development and in integrating these priorities with the research agenda of the Centers.

We will continue to do so to achieve our goal of fighting poverty and hunger.

Adel El-Beltagy  
*Chair, CDC (2003)*



**"The CDC remains focused on ensuring maximum support to all Centers and exploring ways in which to bring additional new financial support to both the Centers and to the Challenge Programs."**