

cg iar News

Nourishing the future through scientific excellence

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Participants at the inaugural session (left to right): Minister Grace Akello; Minister Fabios Byaruhanga; Rt. Hon. Edward Ssekandi, Speaker of Ugandan Parliament; Prof. Richard Musangi, Chair, WARDA Board of Trustees; Oliver Wonekha, MP, and John Odit, MP. The Speaker's message: "With the knowledge acquired from this workshop, Members of Parliament will be greatly empowered to mobilize the population in their respective constituencies to ensure food and nutrition security."

CGIAR and Parliamentarians: Strengthening Partnerships in Uganda

Over 40 Ugandan Members of Parliament, State Ministers, and farmers met CGIAR researchers from eight Centers to learn more about CGIAR's research-for-development activities and explore collaboration for improving nutrition, food, and income security to benefit Uganda's farmers.

Welcoming the Ministers and Members of Parliament on behalf of CGIAR, Richard S. Musangi, Chairman, WARDA-The Africa Rice Center Board of Trustees said "It is appropriate that the meeting is taking place in Jinja, especially since Uganda is a leading client, supporter, and member of the CGIAR."

The workshop was inaugurated by the Rt. Hon. Edward Ssekandi, Speaker of Parliament. Addressing the parliamentarians and researchers, he said "I am very pleased to have this opportunity to dialogue with CGIAR scientists not only

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AGM'04 in Mexico — Mark Your Calendars!

The 2004 Annual General Meeting (AGM2004) will be hosted by the Government of Mexico and CIMMYT and held in Mexico City. The AGM and associated meetings will take place October 25–29, 2004.

CGIAR Chairman

Ian Johnson

CGIAR Director

Francisco Reifschneider

CGIAR Members

African Development Bank
 Arab Fund for Economic and Social Development
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 South Africa
 Spain
 Sweden
 Switzerland
 Syngenta Foundation for Sustainable Agriculture
 Syrian Arab Republic
 Thailand
 Uganda
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 United Nations Environment Programme
 United States of America
 World Bank



Message from the Chairman and Director

Dear Colleague:

We are pleased to present you with "CGIAR News," the spring edition. For your convenience, an e-version is available at www.cgiar.org

We began the New Year with a tremendous vote of confidence in the CGIAR. UK's Department for International Development (DfID) announced an increase in its contribution by £10 million (approximately US\$18 million) a year for three years, acknowledging that "the CGIAR reform process is moving in the right direction, governance issues and system-wide reforms are being addressed, and new evidence is emerging of real impacts on poverty." Similarly, Italy has announced that it will double its contribution, and Austria has returned to the CGIAR as a contributing member. Earlier, Canada doubled its level of financial support. In addition, in this first quarter of the year we have also welcomed an extraordinarily well qualified new Science Council (see page 8 for a list of members and an interview with the new Science Council Chair Per Pinstrup-Andersen), initiated two new Task Forces to further examine structure and programmatic alignment among Centers, and a number of Centers have commenced discussions on how to better do business together.

And most importantly, over the last three months, research which benefits smallholder farmers has continued to deliver results. The stories contained in this edition encapsulate these successes while demonstrating the continuing value of CGIAR research to smallholder farmers, producers and consumers alike.

We hope you find this snapshot of CGIAR activities that are helping create sustainable pathways out of poverty for poor people to be of interest. We welcome comments at cgiar@cgiar.org

Thank you for your interest in and support to the CGIAR.

With best wishes,

Ian Johnson
CGIAR Chairman

Francisco Reifschneider
CGIAR Director

New Director General of WorldFish Center



Stephen J. Hall is the new Director General of WorldFish Center, and took up office on March 1, 2004. He succeeds Meryl Williams who completed a 10-year assignment.

Dr Hall was educated in Wales and Scotland and is an eminent fisheries scientist and research leader. Prior to joining WorldFish, he held positions of Professor of Marine Biology at Flinders University and Director of the Australian Institute of Marine Science (AIMS). His many achievements and publi-

cations include a recent major book on the effects of fishing on marine ecosystems which has already become an essential text in this field.

"I feel privileged to have been given the opportunity to lead WorldFish in the next phase of its development," said Stephen Hall upon taking up his new assignment. "As the only CGIAR Center dealing with aquatic production systems, WorldFish, working in partnership with national research and development organizations, is in a unique position to make a significant contribution to the development agenda. I look forward to helping the organization deliver on that promise."



Pamela Anderson to Lead CIP

Pamela Anderson, an entomologist and ecologist and currently CIP's Deputy Director General for Research has been appointed Director General to succeed Hubert Zandstra who retires in April 2005.

Dr. Anderson, a U.S. national, joined CIP in 2002. A leading expert on emerging plant diseases, she

has done extensive research in virology, ecology, food production, human health and agricultural development for resource-poor farmers. She has worked in Latin America for more than 25 years, including over a decade in national agricultural research systems. Since joining CIP, she guided the Center through a Vision exercise, realigning the Center's research and development program to bring it closely into harmony with the Millennium Development Goals.

"The leadership and investment over the past 30 years have resulted in a strong and vibrant center, with a demonstrated contribution to improving the well being of the world's poorest people for whom potatoes and sweetpotatoes are vital crops," said Dr. Anderson while accepting the appointment. "It will be my honor and privilege to lead the International Potato Center and work with our donors, partners and beneficiaries." 🌱

Announcements

Welcome to New Center Board Chairs:

Keijiro Otsuka, IRRI, succeeding Angeline Kamba

James W. Jones, CIAT, succeeding Lauritz Holm-Nielsen

Meryl Williams Nets Top Australian Award

Meryl Williams, former Director General, WorldFish Center, was awarded Australia's prestigious Centenary Medal for her contributions in marine science to Australian society and government.

"I have the great pleasure to represent Australia and all Australians as we honor Dr. Meryl Williams as an exceptional Australian," said H.E. James Wise, Australian High Commissioner to Malaysia, while conferring the award. "The Centenary Medal gives the Australian community the chance to thank those who have made significant contributions to Australia. The contributions Dr Meryl Williams has made have been invaluable."

Prior to joining WorldFish Center, Meryl Williams was one of Australia's top marine scientists, leading the Australian Institute of Marine Science, and the Australian Government's Bureau of Rural Resources. She advised the Australian Government on national and international fisheries management issues and the management of the Great Barrier Reef, the largest coral reef in the world. 🌱

The Center Directors Committee: New Horizons in 2004

As Chairman of the Center Directors Committee (CDC) for 2004, I am delighted to provide an update of the new challenges and opportunities faced by CDC. For the past two years, CDC has undergone significant changes in the way in which it conducts its business, and has worked to successfully streamline and better implement its decisions. The drafting of a Code of Conduct for the CDC under the direction of my predecessor, Adel El-Beltagy (ICARDA) as CDC Chair, was just one of the ways in which the Centers focused on how to better improve their work together.

During 2003, together with the Center Board Chairs (CBC), to further unlock the full potential of investments and the knowledge capital of the Centers, we began to discuss the concept of an Alliance and the Future Harvest Alliance was born, an alliance of the then 16 Centers. An Alliance Office (FHAO), headed by an Executive Officer would support the Centers in the day to day work of shared programs and in the co-leadership of the various units and programs that make up the System Office.

Meryl Williams, retiring DG of WorldFish, has been selected to fill the position of Executive Officer, beginning May 1, 2004. She will serve on a part-time basis. The Executive Officer will report to the CDC Chair, and will work hand in hand with the Executive Committee of the CDC and the CDC Executive Secretary, to build on and strengthen existing collaborative efforts in research and corporate management, enhance Center contributions to the CGIAR Executive Council, and add value to the strategic agenda of the CDC and CBC.

The CDC continues to support many of the programs and joint ventures among the Centers including the Chief Information Officer, the Gender and Diversity Program, and the Corporate Advisory Service. Following up on our decision to further streamline the work of the Centers, the CDC will no longer fund multiple activities in public awareness but will continue to support the work of the Marketing Group, made up of representatives from each of the Centers and the Secretariat.

Personally I believe we are in the midst of one of the most challenging and exciting periods in the life of the CGIAR and the Centers. As a group, I look forward to the CGIAR moving from action plans to “actionable plans” and to taking bold decisions more quickly and efficiently. As part of the overarching effort of helping to achieve the Millennium Development Goals (MDGs), we will work towards transforming our different mandates into a powerful and comprehensive R&D system that transcends the prejudices of individual Centers, sub-regional, and regional boundaries—in a system that will bring hope to the hopeless, food to the hungry, wealth to the poor, and above all, help end the cycle of despair by giving the rural poor opportunities to participate in the global economy and build sustainable pathways out of poverty.

Kanayo F. Nwanze
Chairman, CDC

Update on ISNAR Transition

Key elements of the ISNAR mandate continue in the form of the new ISNAR Program, although all program work within ISNAR as a CGIAR Center will have ceased on March 31, 2004. Critical project work of ISNAR is continuing under IFPRI's new ISNAR program. An advisory committee has been established to guide the new program. The establishment of the new ISNAR Program will begin operation accompanied by extensive consultations with partners representing national programs, academia, civil society and the donor community. The international search for the Director of the Program is in progress.

IFPRI has commenced discussions with the Government of Ethiopia and ILRI regarding the organizational arrangements for the ISNAR Program in Addis Ababa, and discussions with IICA in Costa Rica have also been initiated, to continue the cooperation with the related ISNAR Program there. 

CGIAR at ESSD Week

Environmentally and Socially Sustainable Development (ESSD) Week is a premier learning event hosted annually by the World Bank's ESSD Vice Presidency, bringing together staff from three families: agriculture, environment, and social development. Therefore, it was fitting that CGIAR feature prominently in the week's activities to showcase impacts of research by CGIAR Centers and contributions to the larger sustainable development agenda.

Knowledge for Natural Resource Management

New knowledge is central to meeting the challenge of managing natural resources such as land, water, and fisheries sustainably. At a special seminar organized jointly with the Bank's Agriculture and Rural Development Department, over 65 participants explored practical ways for strengthening the knowledge-to-action continuum. Speaking on behalf of the CGIAR Center Directors Committee (CDC), Kanayo Nwanze, Director General, WARDA-The Africa Rice Center, gave an overview of natural resource management (NRM) research in the CGIAR, its component stages, and how NRM research is linked to efforts to improve livelihoods, agricultural productivity, environment services and agro-ecosystem resilience.



Minister Grace Akello of Uganda responds to CGIAR presentations—to her right is William Dar, Director General, ICRISAT.

Joachim Voss, Director General, CIAT focused his presentation on CGIAR research in action at diverse locales: managing soil erosion in Asia, improving land management across the Lake Victoria basin, and using integrated research approaches to improve livelihoods in the high Andes. Appropriately titled "Good News from the Field" he noted adoption rates were as high as 40 percent in targeted communities and internal rates of return ranged from 60 to 99 percent.

Simon Heck, representing WorldFish Center, spoke about the relevance of fisheries to achieving the Millennium

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World Agroforestry Centre and CIP Collaborator Win Prestigious Development Marketplace Awards



Two grassroots development innovations, from World Agroforestry Centre and Center for Natural Resources and Environmental Research (CIRNMA, a CIP collaborator), were among the finalists chosen in "Development Marketplace 2003," a global competition sponsored by the World Bank.

Development Marketplace 2003, held in Washington in December 2003, is a global bazaar of ideas, with all the animation, buzz and color of a souk. The Harvard Business Review has described it as "an innovative approach to finding innovative ideas in development." A New York Times editorial has hailed it for combining Silicon Valley venture capitalism and social entrepreneurship.

Rwanda Agroforestry Network (RAFNET)

More than 95 percent of Rwanda's population are small-scale farmers, tilling infertile soils and depending on animal husbandry for a living. At \$260 per annum, per capita incomes are among the lowest in the world. World Agroforestry Centre researchers, in partnership with RAFNET, have been promoting zero-grazing dairies and progressive terracing techniques as a means of raising rural incomes and conserving the environment. The idea is simple but effective and involves equipping a farm with a jersey cow, fodder banks, progressive terracing systems and milk collection tools. Farmers benefit from on-farm fodder production,

Continued on page 6

Stagnating Rice Sector Threatens Asian Stability



Stability in the Asian region, including in Indonesia and Philippines, is threatened by the continuing lack of development in the rice sector. Rice farming remains a poverty trap in many Asian nations, mainly because of very small farm size. Adding to the misery of rice growers in the region is declining support for public rice

research, one of the few proven avenues for improving the lives of rice farmers and consumers alike.

Speaking at the launch of the “International Year of Rice 2004,” and making the case for increased investments in rice research, Ronald Cantrell, Director General, IRRI said: “Achieving at least two of the eight Millennium Development Goals heavily depends on continued and strengthened research efforts to help farmers grow rice more efficiently, profitably and sustainably.”

In the early years of the Green Revolution up to the early 1980s, the rice-producing nations of Asia enjoyed annual rice yield increases of 2.5 percent and production gains of over 3 percent. However, between the middle of the 1980s and the late 1990s, the rate of annual yield increase was nearly halved, and the rate of production increase fell even further.

Recent research has shown that in 1999, for every US\$1 million invested at IRRI, more than 800 rural poor in China, and 15,000 rural poor in India, were lifted above the poverty line. These poverty-reduction effects were even greater in earlier years.

Dr. Cantrell’s address provided participants with a snapshot of activities being undertaken by IRRI and its partners to improve productivity, profitability, and sustainability of rice farming:

- Developing more nutritious rice rich in essential micronutrients as iron, zinc vitamin A, and protein
- A new type of dry-field rice that reduces the amount of water used in rice cultivation thereby helping mitigate Asia’s looming water crisis where farmers use unsustainable levels of up to 3,000 liters of water to produce 1 kg of rice
- Developing rice that withstands stresses such as drought or saline soils.
- Developing hybrid rice and other varieties that will provide higher yields for farmers and motivate private sector investment in developing improved varieties for farmers.

The conference marked the official launch of FAO’s International Year of Rice 2004. 🌾

For more information, www.rice2004.com

Development Marketplace Awards continued from page 5

tree planting, and using biogas produced from animal manure instead of firewood. This innovative approach won a cash prize of \$246,648 for scaling-up activities.

Center for Natural Resources and Environmental Research (CIRNMA)

CIRNMA, derived from the Spanish name, Centro de Investigación de Recursos Naturales y Medio Ambiente, is an NGO working in southeastern Peru. It’s innovative project promotes the production of marmalade from oca (*Oxalis tuberosa*) a little-known Andean tuber crop, as a way of raising rural incomes in Puno village, near the shores of Lake Titicaca, once the seat of the famed Inca empire.

Historic accounts indicate that oca was a major Andean staple in pre-Colombian times. Usually grown on marginal soils, it easily yields 50 tons per hectare, rivaling potato in terms of productive potential. A single plant can yield up to 4 kilograms of tubers.

The project aims to generate multiple benefits. It targets Puno’s indigenous Aymara-speaking people, training them to produce a variety of oca marmalades for the commercial market, encouraging rural micro-enterprises and promoting biodiversity conservation. It also helps curb pollution in Lake Titicaca through the use of organic fertilizer from manure and crop residues. This proposal won a cash prize of \$115,000.

“Traditionally, wealth and biodiversity went hand-in-hand in the high Andes,” said Robert Valdivia, Executive Director, CIRNMA. “But little is known today about how to use biodiversity to advantage in a global market—our project helps raise incomes of rural families while promoting biodiversity conservation.”

Development Marketplace 2003 attracted innovators from 27 countries, showcasing 47 innovative projects, selected from 183 finalists, and over \$6 million in prize money was awarded. 🌾

For more information, visit www.developmentmarketplace.org

Diversity for Nutritional Well-Being

Diverse diets are good for human health and nutrition, and healthy people who value the diversity that surrounds them are more likely to preserve it.

This was the overarching theme of a keynote speech delivered by Emile Frison, Director General, IPGRI, on behalf of the CGIAR to the 7th Conference of Parties of the Convention on Biological Diversity (CBD) held in Malaysia.

Hidden hunger afflicts 2 billion people worldwide. Roughly one in every three people lacks essential vitamins and other nutrients. The most severely affected are women and young children, especially in sub-Saharan Africa.

“Biodiversity and human health are integrally linked,” said Frison in his plenary address. “We are committed to mobilizing public goods science for tackling the problem of hidden hunger and malnutrition head on.”

Promoting diversity in diets is the simplest way to address problems of micronutrient deficiencies. A study in the United States showed that diversity in diets reduced the risk of mortality. Research conducted in Italy has shown a link between greater diversity (in fruits and vegetables) and reduced incidence of stomach cancer. In Tamil Nadu, India, IPGRI is working with the M.S. Swaminathan Research Foundation to boost consumption of minor millets that are nutritious and can grow in marginal environments. This project is supported by IFAD.

“Farmers who benefit directly from biodiversity, are more likely to conserve it,” Frison told the conference. “Just as more complex and diverse ecosystems are generally more productive and more stable, so do more diverse diets act as a buffer against the ill effects of nutritional perturbations.”



“Penang Statement and Action Plan”

More than 200 million people depend on fisheries for their livelihoods. Highlighting the important contributions of fisheries to the sustainable development agenda, WorldFish Center released the “Penang Statement” at the Convention on Biological Diversity meetings. The statement outlines a strategy for improving fisheries management, both in support of the Convention and FAO’s Ecosystem Approach to Fisheries (EAF) and calls for:

Adopting the Ecosystem Approach to Inland Fisheries

The Ecosystem Approach: Why and What?

- Threats to inland fisheries and degradation of aquatic ecosystems are affecting the livelihoods of millions of poor people. This problem cannot be solved within the fishery sector alone
- Aquatic resources are more than managing fish—it is about people! The ecosystem approach brings people from all sectors together, making the link between fisheries, water and the environment
- Implementing the ecosystem approach poses new challenges

- The inland fisheries problems are largely ignored and invisible outside the sector. The outreach inherent in the ecosystem approach to inland fisheries will give the sector a voice.

The Ecosystem Approach: how?

- Work towards a coherent and coordinated set of policies, laws and guidelines
- Strengthen institutions and their functions to implement the ecosystem approach in cross-sectoral cooperation
- Create an enabling environment to promote stakeholder participation
- Support research and the collection, dissemination and use of local knowledge to provide an informed basis for implementing the ecosystem approach

For a complete version of the Penang Statement, visit www.worldfishcenter.org

For FAO’s work on fisheries, visit www.fao.org/fi

The seventh session was attended by some 2,000 participants, including 80 ministers. In Kuala Lumpur, the 187 Member States of the CBD set rigorous targets for reducing the rate of biodiversity loss by 2010. 🌿

For more information on CBD, visit www.biodiv.org

Copies of *Biodiversity, Nutrition and Health: Making a Difference to Hunger and Conservation in the Developing World* available at <http://www.biodiv.org/meetings/cop-07/press/speech.aspx> or from j.cherfas@cgiar.org



Standing (left to right): ole-MoiYoi, Chopra, Fischer, Gale, Harwood, Gregersen, de Janvry; Seated: Kainuma, Pinstруп-Andersen, Sennerby-Forsse



(left to right), Messrs. David A. Harcharik (FAO), Ian Johnson (CGIAR), Jacques Diouf (FAO), Francisco Reifschneider (CGIAR), John Monyo (FAO)



Per Pinstруп-Andersen, Chairman, CGIAR Science Council

CGIAR Science Council Appointed

Following an extensive global search, a distinguished group of scientists have been appointed to the Science Council of CGIAR. The members are:

- Dr. Per Pinstруп-Andersen (Babcock Professor, Cornell University and World Food Prize Laureate), Chair
- Dr. Virender Lal Chopra (President, National Academy of Science, India)
- Dr. Alain de Janvry (Professor, University of California-Berkeley)
- Dr. Kenneth Fischer (Adjunct Professor, University of Queensland, Australia)
- Dr. Michael Gale (Emeritus Fellow, John Innes Centre, Norwich Research Park, UK)
- Dr. Hans Gregersen (retired Professor, University of Minnesota)
- Dr. Richard Harwood (Professor, Michigan State University)
- Dr. Keiji Kainuma (Executive Research Advisor, National Food Research Institute, Japan)
- Dr. Onesmo ole-MoiYoi (Director, Research and Partnerships, International Centre of Insect Physiology and Ecology (ICIPE), Kenya) and
- Dr. Lisa Sennerby-Forsse (Secretary General, Swedish Research Council for Environment, Agricultural Sciences and Spatial Planning (FORMAS), Sweden).

Speaking in Washington, Ian Johnson, World Bank Vice President for Sustainable Development and CGIAR Chairman said, "I am pleased CGIAR was able to bring together such an impressive team of scientists. I am confident that under their wise counsel, CGIAR will continue to make a tremendous impact on the lives of millions of poor people around the world."

At a meeting to discuss modalities of support for the Science Council, FAO reaffirmed its strong commitment to the CGIAR and will continue to host the Science Council Secretariat at FAO Headquarters in Rome (see adjacent photo).

Meet Per Pinstруп-Andersen, Chairman, CGIAR Science Council

During a recent visit to Washington, Per Pinstруп-Andersen, Chairman, Science Council spoke to "CGIAR News" about the Science Council's priorities and evolving work program. No stranger to the CGIAR, Per was formerly Director General of IFPRI (1992–2002). Born in Holmager, Denmark, he received his B.S. (Agricultural Economics) from the Royal Veterinary and Agricultural University, Copenhagen, and a master's and doctorate from Oklahoma State University. In 2001 he was awarded the World Food Prize.

Q: Please describe the role of the CGIAR Science Council?

PP-A: The single-most important role of the Science Council (SC) is to advise CGIAR Centers, members, and stakeholders on research priorities and strategies, quality of research, and related issues such as new technologies and policies to help poor farmers in developing countries manage resources for higher productivity

and incomes, a more secure food supply, and sustainable use of natural resources. Because CGIAR investments account for only 4 percent of total expenditures in agricultural research, we have to be absolutely certain that we set the priorities in a way that will do the most for poor people. Restated, the purpose of the Science Council is to help the Centers and the stakeholders to identify the priorities that will have the biggest beneficial impacts on the lives of poor people per dollar spent.

Q: What are the top three priorities for the new Science Council?

PP-A: Our first priority is to help CGIAR to set priorities that will reflect the needs of poor people, whether they are farmers or consumers. Secondly, SC should help establish appropriate measures of science quality and monitor the quality of the science that is being done within CGIAR. Thirdly the Science Council should assess the impact of the work done by CGIAR Centers. I see a fourth priority that the SC should be addressing, and that is mobilizing science for agricultural development and poverty eradication outside of the CGIAR. For that purpose, we are hoping to strengthen the collaboration between the CGIAR and agricultural research institutions and farmers throughout the developing world.

Q: Please describe the *modus operandi* of the new Science Council?

PP-A: The SC will operate in a consensus mode, we will meet when necessary to discuss matters that fall within our mandate. We will spend lot of effort interacting between meetings in a virtual mode, by telephone, email, and video

conferences, and arrangements of various kinds. But we will probably have two formal meetings per year, and leave ourselves the option for more meetings if needed. I might add that it was fascinating to have our first meeting and see nine members of the Science Council coming from many different cultural backgrounds, scientific disciplines, and to see that we were able to carry on a constructive conversation from the very beginning. Sometimes it takes a great deal of effort to get people from different cultures to communicate. In this case, we had no problems, and the members communicated among themselves effectively. I think the reason is that they are a very dedicated group of high-level scientists who share a common goal with the CGIAR of reducing and hopefully eliminating poverty and hunger in developing countries. It is these shared goals that unite the SC and make us communicate very effectively.

“The purpose of the Science Council is to help the Centers and the stakeholders to identify the priorities that will have the biggest beneficial impacts on the lives of poor people per dollar spent.”

Q: Why is the work of the CGIAR important?

PP-A: About 70% of the world’s poor and hungry people live in rural areas where they depend on agriculture directly as farmers or farm workers or indirectly, as providers of agricultural goods and services. In order to help that target population of poor people to escape poverty, we need productivity-increasing measures in small-scale

agriculture in developing countries. But we also need sustainable productivity increases because natural resource management issues have to be taken into account. We must manage natural resources in a way that is compatible with the needs of future generations, so the agricultural research that is being done both by CGIAR and collaborating institutions is very important.

While the national institutions have to do most of the agricultural research, the CGIAR can help by undertaking the research that we refer to as international public goods, namely the kind of research that many national institutions can use in their efforts to meet the needs of poor farmers and poor consumers. In view of this, it is very important that international and national institutions interact to achieve common goals.

Q: What about the role of farmers?

PP-A: If we are to assure that the priorities in agricultural research are reflecting appropriately the problems of poor people then poor people should be partners in setting priorities. For this, we need to closely work with farmers associations, NGOs, with public sector representatives, and with others who understand the problems facing poor farmers in developing countries. By doing so, it will help us understand

what kind of solutions are relevant and acceptable to the intended beneficiaries, namely low-income people. We also have to work very closely with the private sector because that is where a lot of the future agricultural research will be undertaken. Therefore, we need to establish much closer working relationships with private institutions as well as NGOs and farmer associations. 🌱

For more information,
www.sciencecouncil.cgiar.org



Back row (left to right): Messrs. Subedi, Frison, Restrepo, Fowler, Thornstrom, Gale and Halewood; front row: Mmes/Messrs. Henson-Apollonio, Ekasingh, Le Buanec, Correa, Sampaio, Esquinas-Al-azar; Cantrell and Montemayor are not in picture.

Resources for Food and Agriculture; overview of developments at Convention on Biological Diversity and World Intellectual Property Organization; progress toward establishing the Global Crop Diversity Trust; discussion of CGIAR guiding principles for genetically engineered crops developed by the CGIAR Center Directors Committee (CDC), and reviving the idea of creating a long-term, safety back-up collection of plant genetic resources in Svalbard, Norway. A GRPC work plan for the next three years was developed. The plan includes reviewing and endorsing documents associated with the development of system-wide Material Transfer Agreements for Center-improved materials (to ensure the extension of the International Treaty's benefit-sharing provisions to those materials); and requesting a study on the work of the Centers that contribute to the implementation of benefit-sharing under the International Treaty, with special emphases on Center technology transfers and contributions to the realization of farmers' rights.

An external review renewed GRPC's mandate in 2003. 
For more information, www.ipgri.org

New Genetic Resources Policy Committee Meets at IPGRI

The new Genetic Resources Policy Committee (GRPC) met at IPGRI during February 16–18, 2004. The members are:

- Carlos Correa (Chairman, University of Buenos Aires)
- Bernard Le Buanec (Private sector, International Seed Federation)
- Ronald Cantrell (CGIAR Center representative, IRRI)
- Benchaphun Shinawatra Ekasingh (Committee of Board Chairs, IPGRI Board of Trustees)
- José Esquinas-Alcázar (FAO Observer)
- Emile Frison (CGIAR Center representative, IPGRI)
- Michael Gale (CGIAR Science Council)
- Leonardo Montemayor (Farmers organizations, Federation of Free Farmers of the Philippines)
- Juan Lucas Restrepo (CGIAR Member, Colombia)
- Maria José Sampaio (NARS, Embrapa-Brazil)
- Anil Subedi (NGO, Intermediate Technology Development Group)
- Carl-Gustaf Thornstrom (CGIAR Member-Sweden)

"We were delighted to host the meeting," said Emile Frison, Director General, IPGRI and GRPC Secretary. "The Committee got off to an excellent start with a fresh mandate to ensure that CGIAR's public goods focus on plant genetic resources research and conservation is sustained."

The full agenda for the meeting covered a wide range of subjects, including issues to be addressed by the CGIAR in implementing the International Treaty on Plant Genetic

Research Spells Hope for Aral Sea

New IWMI research shows that if part of the saline, rice-producing areas in Central Asia's Syr Darya Basin were taken out of production, it would be possible to double the flow of water into the dying Aral Sea.

IWMI researchers, in partnership with the Scientific Information Center of Interstate Coordination Water Commission (SIC ICWC), have been conducting research in the Amu Darya and Syr Darya river basins that span five countries across

Central Asia. The research aims to address the region's growing water crisis by improving water management at local, national and regional levels.

"IWMI's research shows the urgent need for an integrated approach to water management in the region," says Mehmood ul Hassan, an IWMI researcher based in Tashkent, Uzbekistan. "This involves a commitment to reforms in the water sector combined with innovative agricultural practices."

Most of the water from the Amu Darya and Syr Darya rivers is withdrawn for irrigation—leaving very little to feed the Aral Sea. IWMI research estimates the net cost of taking 132,000 hectares of salinized land out of production would be less than US\$30 million, yet in terms of ecological value of the irrigation water saved, the benefits for the future of the Aral Sea would be far greater. If current water (mis)management trends continue, researchers predict the Aral Sea will dry out completely by the year 2020.

Strengthening Public-Private Partnerships: CGIAR Featured at CEO's Roundtable

"CGIAR's Private Sector Committee is working hard to strengthen and enhance public-private partnerships, both within the CGIAR and beyond," said Usha Barwale-Zehr, Chairman, CGIAR Private Sector Committee (PSC) while briefing a group of CEO's and business leaders from the agricultural sector about the ongoing CGIAR reforms.

The meeting, held at the World Bank, is part of an ongoing dialogue on implications of agricultural science and technology for sustainable development and poverty reduction, and was hosted by Mr. James D. Wolfensohn, President of The World Bank Group in January 2004.

The objective was to assess progress made since the last dialogue held in 2000, benefit from current private sector perspectives, and raise awareness about new initiatives and programs underway in the private sector, World Bank Group and CGIAR.

In addition to Barwale-Zehr, Sam Dryden and Mumeka Wright (PSC Members); Ian Johnson, CGIAR Chairman, and Francisco Reifschneider, CGIAR Director participated in the meeting.

Barwale-Zehr highlighted three activities being undertaken by PSC to strengthen collaboration with CGIAR:

- Participating in CGIAR Challenge Programs
- Developing and launching a scientific exchange program
- Establishing delivery systems and communication initiatives on current agricultural issues

Participants were then given an overview of the World Bank's new rural development strategy, "Reaching the Rural Poor," and provided with an update on "Assessment of Agricultural Science and Technology for Development." The industry recognized that the new strategy encourages a shift from a purely public sector-driven agriculture system to one that operates on public-private partnerships. The strategy also commits the World Bank to helping developing countries access information about various technology options for increasing agricultural productivity. The broader issues impacting agriculture such as rural credit and financing, market access, infrastructure, intellectual property and regulatory

environments in countries were also highlighted.

Dr. Gordon Conway, President, The Rockefeller Foundation, outlined the successful launch of the African Agricultural Technology Foundation (AATF), a new initiative where public-private partnerships are key to serving the needs of smallholder farmers in sub-Saharan Africa. It was pointed out that several private sector companies are already participating in technology transfer programs in the region.

The meeting concluded on a positive note with reaffirmations of the commitment to seek opportunities for productive collaboration on projects and programs that will help farmers in developing countries to improve their livelihoods and benefit from the new technologies. Mr. Wolfensohn's remark that "CGIAR is a gem" reconfirmed World Bank support. The CGIAR reforms are providing clear opportunities where private sector organizations are interested in participating. All present agreed that such discussions are valuable and more regular interaction was desirable. 🌱

Aral Sea continued from page 10

The results of a recent World Bank-sponsored water savings competition and further monitoring of user-driven conservation efforts within the Syr Darya basin indicate cause for hope. IWMI and SIC ICWC scientists found that the basin-wide application of water conservation strategies could save as much as 36 km³ of water per year. According to FAO data, this would be enough to stabilize the sea at its 1990 level, but would not address the continuing environmental degradation of the exposed sea bed.

In an effort to make the research results better known in Central Asia and beyond, a database has been created on farming practices that can save water and which can be adopted throughout the region and other water-scarce river basins. IWMI researchers and partners in the region—notably the Scientific Information Center of the Interstate Commission for Water Coordination of Central Asia and the International Fund for Saving the Aral Sea—have adapted lessons learned from over 15 years of research on water user associations in

the Central Asian context. Guidelines and best practices to support the work of Government agencies, NGOs and donors are available on a special Central Asia Water Users web page in Uzbek, Russian, Tajik and English.

"Our aim is to find ways of producing more food with less water in a sustainable way that is beneficial to the environment," emphasizes Hassan. 🌱

For more information, visit www.iwmi.org/centralasiawaterusers

Sustaining the Wellspring of CGIAR Innovation: Information Technology and Knowledge Management Pave the Way

CGIAR's Information and Communication Technology-Knowledge Management (ICT-KM) program received a major boost with a \$5 million investment plan from the World Bank. The funds will go toward strengthening ICT-KM practices and tools to significantly improve the way CGIAR Centers share knowledge, link with partners, and deliver agricultural public goods to benefit the world's poor people.

The investment plan calls for supporting 15 projects grouped into three main thrusts: ICT for Tomorrow's Science, Content for Development, and A CGIAR Without Boundaries.

"The ongoing reforms are bearing fruit and changing the CGIAR system," said Kevin Cleaver, World Bank's Director for Agriculture and Rural Development and CGIAR Cosponsor. "By supporting the ICT-KM plan we hope to ensure that the best tools to share knowledge are brought to bear on the urgent task of reaching the rural poor and tackling persistent rural poverty."

Funding for the projects will help to:

- Improve how the CGIAR communicates and uses data by implementing a high-performance ICT infrastructure both system-wide and in support of specific scientific communities of practice
- Promote the creation and sharing of knowledge by providing easy access to integrated information and data in the forms users need
- Nurture a collaborative culture, via new techniques and knowledge management approaches, thus improving the effectiveness of cooperative global agricultural research.

"This new phase should transform the capabilities of the CGIAR Centers by incorporating new technologies and approaches in all facets of our work in support of the CGIAR's mission" said Kanayo Nwanze, Chairman, CGIAR Center Director's Committee (CDC).

CGIAR's ICT-KM strategy has been reviewed extensively and passed the litmus test of relevance. An external panel

reviewing the investment plan concluded that "The strategic ICT-KM process being undertaken by the CGIAR, driven by its Chief Information Officer, shows that the organization is a pioneer in this area."

Commenting on the critical need to strengthen ICT-KM activities, Enrica Procari, CGIAR Chief Information

Officer emphasized that "Above all, the investment plan focuses on improving innovation, responsiveness and productivity by creating a CGIAR without boundaries, an internationally distributed, unified and open, knowledge organization."

"The funding now available from the World Bank presents an excellent opportunity to implement a series of projects that we believe will make a significant difference for our research agenda and the vitality of the CGIAR as a whole." said Frank Rijsberman, Director General, IWMI, and Chairman of the CGIAR ICT-KM Sub-Committee.

With funding for the 2004 Investment Plan approved by the World Bank, the projects are slated to commence in March 2004. 🌱

ICT-KM 3 thrusts:

ICT for Tomorrow's Science

Content for Development

A CGIAR Without Boundaries



CIFOR Director General David Kaimowitz and Head of the Indonesian Government's Financial Transaction Reporting and Analysis Center Yunus Husein at the signing of a Memorandum of Understanding on fighting illegal logging.

CIFOR Helps Fight Illegal Logging in Indonesia

Illegal logging in Indonesia costs the Government up to \$3 billion a year in lost tax revenues. Many attempts have been made to solve the problem at the source—in forests—but these have proved ineffective. Now, thanks to pioneering work by Bambang Setiono, CIFOR analyst, big-time illegal loggers have to think long and hard about continuing their destructive practices.

Setiono decided not to tackle the problem at the supply end. Rather, with so much illegal money being generated by illegal logging, he thought it more effective to hit illegal loggers where it hurts—in their bulging bank accounts. Throughout 2003 Setiono worked closely with Indonesian politicians and the Government's Financial Transaction Reporting and Analysis Center (PPATK) to alert legislators about how anti-money laundering laws could oblige banks to report on suspicious transactions involving illegal logging.

In October 2003, Indonesia became the first country to pass anti-money laundering legislation. CIFOR signed a memorandum of understanding with the Indonesian Government in January 2004 under which CIFOR will provide data, exchange experts, and help PPATK formulate guidelines for financial institutions to identify and prevent money laundering activities.

"Until now Government initiatives to stamp out illegal logging only netted small-scale loggers who were caught cutting down trees illegally," said Bambang Setiono. "The new regulations will help catch the 'Mr Bigs' who work behind the scenes in supporting illegal logging." If properly enforced, the laws could save the Indonesian Government between \$1 to 3 billion dollars annually. This money would be a significant boost to the Government's efforts to improve economic development and reduce poverty.

The new legislation and MOU have received widespread support from Indonesian journalists and environmentalists

"Thanks to CIFOR, big-time illegal loggers have to think long and hard about continuing their destructive practices."

alike. In an editorial, The Jakarta Post wrote: "The partnership between PPATK...and the Bogor-based environmental organization [CIFOR] is quite strategic in preventing illegal logging proceeds from entering the financial system. Since CIFOR is part of a vast network of national and international environmental organizations, it has connections with hundreds of researchers in 30 countries and is adequately funded and staffed to conduct high-impact research, it is capable of assisting PPATK and banks in detecting companies engaged in illegal logging and other forest crimes." 🌿

For more information, visit www.cifor.org



Photo credit: Peter Dutton, NOAA

Away from its element, a grounded Pacific leatherback turtle is a source of curiosity—in the future, conservation strategies must combine knowledge of biology and communities.

“We came to this meeting seeking a set of workable solutions to reverse the critical decline of Pacific sea turtles...The sooner more concerted action starts on a pan-Pacific level, the better the chance that the turtles will be saved.”

Turtle-Friendly Fisheries Only Hope for Gentle Ocean Giants

Over the last decade nesting populations of critically endangered Pacific leatherback turtles have crashed, and the survival of this species is threatened by local and global impacts. Pacific leatherbacks, so named for their smooth leathery skin, can grow up to eight feet long and weigh close to a ton.

Turtle meat and eggs are eaten by many coastal communities throughout the Pacific Islands. At the same time, the wide-ranging migratory turtles are also vulnerable to coastal tourism development, accidental catch by fishing gears, and marine pollution. Consequently, six of the seven sea turtle species are now classified as endangered or, worse, critically endangered, by the World Conservation Union (IUCN) Red List.

To address these issues, a group of 25 marine fisheries, conservation, policy, industry, and management experts met at the Bellagio Conference Center, Italy, to create a much needed blueprint for the conservation of sea turtles in the Pacific Ocean.

“We came to this meeting seeking a set of workable solutions to reverse the critical decline of Pacific sea turtles”, said Meryl Williams, Director General, WorldFish Center, who chaired the meeting. “Our next steps are to go out and promote the adoption of actions by the relevant people. The sooner more concerted action starts on a pan-Pacific level, the better the chance that the turtles will be saved.”

The Bellagio blueprint called attention to the need for protecting all nesting beaches, reducing turtle take in at-sea and coastal fisheries, stimulating pan-Pacific policy actions, and encouraging the sustainable use of sea turtles recognizing that gathering of turtle eggs and hunting of sea turtles for meat contribute to food security of many local communities.

Developing suitable responses requires anthropological, biological, and fishing information on coastal and island living communities. “Our efforts must focus on linking existing knowledge of turtle biology and use, including migration studies, genetics and fisheries with knowledge about the community uses,” said Mahfuz Ahmed, Head, Policy Research and Impact Assessment, WorldFish Center. 🌿

For more information, www.worldfishcenter.org, IUCN's Red List program, www.redlist.org

The Triumph of Partnership

Lentil, usually served as *dhal* with rice, is considered “poor man’s meat” in Bangladesh due to its high protein content. Lentil, rich in micronutrients such as betacarotene and zinc, are essential for health. Lentil straw is valued as animal feed. Lentil planted in rotation with rice adds nitrogen to the soil and helps break pest and disease cycles. But production is not keeping up with demand. Bangladesh imports over 75,000 tons of lentil at a cost of about US\$34 million annually, and farmers cultivate local landraces that are low yielding and susceptible to disease.

Since the 1980s, ICARDA has been collaborating with Bangladesh Agricultural Research Institute (BARI) to help increase lentil production by developing improved, disease-resistant lentil varieties that have a broader genetic base.

Overcoming an Ancient Bottleneck

Due to differences in flowering times of local and exotic lentil cultivars, it was not possible to cross the two to incorporate exotic genes. This ancient bottleneck was broken through a hybridization program, using parental material from ICARDA. In consultation with national breeders, crosses were made at ICARDA under extended photoperiod (18+ hours) to improve synchrony in flowering and facilitate crossing with Bangladeshi landraces.

Targeted segregating populations developed at ICARDA were then sent to partners of national programs in Bangladesh and other south Asian countries. Through this approach—breeding for synchrony followed by wide crosses—introgression of desirable genes including those of disease resistance was achieved, and the genetic base was broadened. This success represents a major breakthrough in genetic improvement of lentil symbolizing a triumph of partnership between national partners and the CGIAR.

Following this strategy, targeted segregating populations, incorporating resistance to blight and rust diseases, were provided to Bangladesh and selections were made under local conditions. This resulted in the development of a rust-resistant cultivar ‘Barimasur–2,’ followed two years later by ‘Barimasur–4.’ Additional research in Bangladesh has focused on varietal development, generation of seed priming technology, improvements in intercropping (relay and mixed) and disease management.

Farmer Motivation and Technology Adoption

The BARI–ICARDA partnership gave researchers, extension agents, and progressive farmers formal training on the new lentil technology package. Nineteen researchers from Bangladesh participated in short- and long-term training courses. A communication campaign provided farmers with information in the form of leaflets, booklets,



Bangladeshi farmers discuss merits of a new lentil variety with ICARDA researchers.

“This success represents a major breakthrough symbolizing a triumph of partnership between national partners and the CGIAR.”

and posters in the local language. Farmers’ field demonstrations and field days were organized. Seeds of improved varieties were distributed directly to farmers to accelerate adoption rates. Farmer-to-farmer seed dissemination has helped improve disseminated improved lentil. To date, about 60,000 ha have been planted to improved varieties, mostly Barimasur–4 (except in Rajbari and Faridpur districts, where farmers prefer Barimasur–3). Lentil farmers have also adopted improved production practices, including relay cropping and mixed intercropping, all of which have helped to increase farmer incomes.

Thanks to the partnership, cultivation of improved varieties and adoption of appropriate production technologies Bangladeshi farmers are producing an additional 28,000 tons of lentil annually, approximately worth \$13 million. 🌱



H.E. Wilberforce Kisamba-Mugerwa, Ugandan Minister of Agriculture, Animal Industry and Fisheries addressing Parliamentarians.

“Parliamentarians [must] assume the role of change agents in bringing about agricultural transformations in their constituencies.”

Strengthening Partnerships continued from page 1

about strategies that increase agricultural productivity, but also about technologies that can add value to our agricultural produce.” In a gesture signaling the Government’s strong support, he authorized the Parliamentarians to participate fully in the 2-day briefing despite the demands placed on their time by parliamentary duties.

The briefing was one component of a strategic approach to keeping key decision makers informed about CGIAR’s work, and is part of an overall effort by the CGIAR Marketing Group (comprising communication and resource mobilization professionals) to keep agriculture and rural development issues at the forefront of the development agenda and debate.

The briefing was organized as a “knowledge-sharing” event—with CGIAR researchers providing in-depth briefings on different facets of their work, and the Parliamentarians interacting among themselves and quizzing researchers about specific development-related aspects and research impacts. An important feature of the briefing was the inclusion of presentations by national partners (NARO scientists and Dick Nuwamanya of Ugandan National Farmers Federation) demonstrating the strength and vitality of the Uganda-CGIAR partnership. The presentations included:

- CIP presentations on Sweetpotato (by Regina Kapinga) and Potential for Agro-industrialization and Trade of Potatoes in Uganda (Charles Crissman)
- IITA and IPGRI on Banana Pests (Clifford Gold) and Banana Utilization (Eldad Karamura)
- WARDA-The Africa Rice Center on New Rices for Africa (Kouame Miezán)
- ILRI on How Uganda Can Enter International Livestock Markets (Amos Omore)
- IFPRI on Promoting Sustainable Land Management in Uganda (Ephraim Nkonya) and on Aquaculture as a Development Strategy (Nikolas Wada)
- The World Agroforestry Centre on Improving Natural Resource Management and Livelihoods (Jean-Marc Boffa)
- CIAT on Stimulating Rural Innovation in Africa (Pascal Sanginga)

A highlight was a demonstration and sale of agricultural products and byproducts organized by the farmers. Ms. Joweria Ssekijanja, a farmer and processor from Luwero province stole the show with a compelling speech about how the new sweetpotato varieties not only increased income, but allowed her to better educate and clothe her children while eliminating malnutrition and measles. If the Parliamentarians needed any proof that poor farmers benefit from advances in agricultural technology, Ms. Ssekijanja’s stirring testimony dispelled all such doubts. Members of Parliament and researchers also discussed the connections between agriculture and the HIV/AIDS pandemic, as well as other critical development issues.

Outlining their expectations of the way forward, the Parliamentarians issued a call for:

- Mobilizing additional resources for science and technology to enhance sustainable research and ensure food and nutrition security for achieving the Millennium Development Goals
- Tackling Vitamin-A deficiency through a mass sensitization program
- Increasing partnership with CGIAR for modernizing agriculture and eradicating poverty on a sustainable basis
- Parliamentarians to take keen interest in trade negotiations and working with farmers to learn modern agricultural methods while taking into account environmental concerns
- Hosting a workshop for Parliamentarians on genetically-modified organisms
- Supporting the IFPRI 2020 Conference scheduled for April 2004

The concluding session was addressed by the Hon. Dr. Wilberforce Kisamba-Mugerwa, Ugandan Minister of Agriculture, Animal Industry, and Fisheries. He urged the Parliamentarians to assume the role of change agents in bringing about agricultural transformations in their constituencies. He played an instrumental role in conceptualizing and launching the meeting.

“These discussions will assist us in developing policies to expand Ugandan agriculture,” said the Hon. Oliver Wonekha, Member of the Parliamentary Committee on Agriculture, Animal Industry, and Fisheries who worked closely with IFPRI in organizing the meeting.

Uganda became a CGIAR Member in 1998. At least 10 of the 15 CGIAR centers conduct research in Uganda, three regional offices are located in the country all working closely with the National Agricultural Research Organization (NARO). Agriculture is the dominant sector in the Ugandan economy, accounting for over 35 percent of gross domestic product. The meeting was reported in *The New Vision*, a local daily.

“We have made tremendous progress in meeting the needs of the country’s small farmers,” said Dr. William Otim-Nape, Acting Director General of NARO. “But we still have some major challenges ahead, and I’m certain the partnership between NARO and the CGIAR will continue to be fruitful in this regard.” 🌱

For more photos, http://www.cgiar.org/meetings/cg_uganda_february2004.html



CGIAR information display where multi-language publications were picked up and over 70 parliamentarians signed up for electronic dissemination of new materials.

Expanding Interaction with Global Meeting of Parliamentarians

CGIAR participated in the 5th annual meeting of the Parliamentary Network on the World Bank (PNoWB) held in Paris, February 14–17. Some 200 parliamentarians from 93 countries representing all regions of the world attended. The importance of the Network, said its Chair, Bert Koenders, a Dutch Member of Parliament, is that “Parliamentarians bring a much-needed ingredient to the mix: political capital.” A CGIAR Exhibit was set up at the meeting, and the CGIAR Secretariat hosted an information briefing on “Mobilizing Science for Development.” The CGIAR-hosted event was the best attended and generated a lively discussion.

The CGIAR’s participation at this meeting together with the Ugandan parliamentarians meeting described in the adjacent article, reflect the renewed emphasis being placed on building partnerships with parliamentarians. This approach was warmly welcomed by Minister Grace Akello of Uganda during ESSD Week. The focus follows successful parliamentary briefings in Canada and India during 2003 which both contributed to strengthening ties with the CGIAR. Further briefings will be held with European members during 2004. 🌱

For more photos, visit http://www.cgiar.org/meetings/pnowb_2004_photos.html.

For more information, visit www.cgiar.org

CGIAR at ESSD Week continued from page 5

Development Goals. In recent times, there has been growing global concern about collapsing fish stocks and negative impacts on food, income, and nutrition security of millions of poor people. With aquaculture contributing less than 5 percent to fish supply in Africa, he cited examples of work underway in Cameroon, Egypt and Malawi noting the tremendous potential for expanding aquaculture in Africa.

Responding to the presentations, three panelists (Emmanuel Owusu-Bennoah from Ghana's Council of Scientific and Industrial Research, Ravi Beri of Udyog Industries associated with the Rice-Wheat Consortium, and Hector Cisneros of Consortium for Sustainable Development of Andean Ecoregion (CONDESAN)) presented perspectives from public, private, and civil society. The meeting was chaired by Michael Crawford, Assistant to World Bank Managing Director Mamphela Ramphele with Erick Fernandes and Manuel Lantin serving as moderators and rapporteurs. Dennis Garrity, Director General, World Agroforestry Centre, requested the World Bank to facilitate processes and methods for scaling-up activities, setting the scene for follow-up activity by the World Bank, CGIAR, and stakeholders.

Seminar on Role of Institutions and Technology for Development Impact

CGIAR partnered with the Bank's Sustainable Agricultural Systems, Knowledge and Institutions Thematic Group to organize this seminar. Sushma Ganguly, the Bank's Sector Manager for Agriculture and Rural

Development (ARD) chaired the session, helping frame the debate by noting that the primary focus of research has been on increasing food production and supply with the consequent decline in food prices and that poverty reduction has been a secondary goal. Francisco Reifschneider, CGIAR Director, presented an overview of CGIAR reforms and how these were helping increasing effectiveness and strengthening alliances with partners and institutions, generating technology for the benefit of smallholder farmers. Eija Pehu, Adviser, ARD and CIP Board Member, gave an overview of Bank lending for agricultural research, extension, and education. She discerned a shift away from the traditional focus on 'food security' toward a new agenda that includes issues such as food safety, biosafety, intellectual property rights, animal welfare, and risk management among others. Kanayo Nwanze and Josef Toledano, a rural development specialist from the Africa Vice Presidency shared experiences about how synergies between CGIAR research and Bank lending helped Guinea in cutting rice import bills and increasing food availability through expanding cultivation of the New Rices for Africa (NERICAs).

Building on the success of the visit to CIMMYT by senior managers, William Dar, Director General, ICRISAT gave a presentation on how a shared literacy was developing on CGIAR-World Bank collaboration in implementing the new rural development strategy, "Reaching the Poor." In January 2004, ICRISAT also hosted a training

hub for World Bank senior managers which was received very well. Participants agreed that such activities needed to be held periodically and future visits to CIAT and ICARDA are being planned.

The CGIAR delegation to ESSD Week comprised six Center Directors, and 12 CGIAR scientists and researchers who joined top level practitioners from international organizations, developed and developing countries, civil society, and the private sector in a program of seminars, consultations, and discussions. Other seminars featuring CGIAR participation included:

- Career Development of Women Professionals in Agriculture—a CGIAR Perspective
- Successful Partnerships in Forestry
- Water for Food
- Sustainable Land Management

Overall, CGIAR participation in ESSD Week was fruitful.

In launching ESSD Week, CGIAR Chairman Ian Johnson who hosted the meeting noted "By 2015, the job [of meeting the Millennium Development Goals] will be half done. We need to think about what the middle of the century would be like. By focusing on the long-term," he continued, "we can align the strategies defined today to the real challenges we will face in terms of technology change, natural resources management, and social balance." It was an apt challenge to all concerned with promoting sustainable development. 🌱

New Rice for Africa

A remarkable partnership between African food scientists and farmers working to improve the world's leading food crop—rice—is spelling hope for thousands of farmers south of the Sahara.

Researchers at The Africa Rice Center (WARDA) in Bouaké, Côte d'Ivoire have developed New Rices for Africa (NERICAs) by tapping into the knowledge of local farmers, utilizing Africa's rich gene pool of local rice varieties, and combining these with high-yielding Asian rice varieties that were the mainstay of the Green Revolution.

"Science and technology are natural allies in the battle against poverty and in the promotion of sustainable prosperity," says Mamphela Ramphele, World Bank Managing Director who is keenly interested in promoting science and technology to help achieve the Millennium Development Goals. "The NERICAs story demonstrates the value of an African-led research-for-development strategy that successfully mobilized cutting-edge science to boost rice yields, farmer incomes, and well-being."

First, the WARDA scientists had to develop a technology adapted to the harsh growing environment of upland rice ecology, which employs about 70 percent of the region's rice farmers, mostly women, who lack the means to irrigate and apply chemical fertilizers or pesticides.

Second, when the scientists attempted to combine the toughness of the native African (*Oryza glabberima*) rice varieties with the productivity of the Asian (*Oryza sativa*) rice varieties, they had to overcome the barrier of hybrid sterility that had stymied earlier such efforts. Using cutting-edge technology, they overcame this problem, in association with an array of partners from around the world, and succeeded in developing the NERICAs.

The Africa Rice Initiative (ARI) is a major, multi-donor effort to accelerate the dissemination of NERICAs. The World Bank, UNDP and the Government of Japan are strong supporters of NERICAs.

"Rice is a major food staple in Africa, and rice demand is spiraling at six percent per annum," says Kanayo Nwanze, Director General, The Africa Rice Center. "In a region where rice imports top \$1 billion, NERICAs are not only boosting farmer incomes but also helping countries cut



NERICAs are a symbol of hope for achieving food security in sub-Saharan Africa.

crippling rice import bills. We believe NERICAs are providing our client countries with true agricultural, economic, and social dividends."

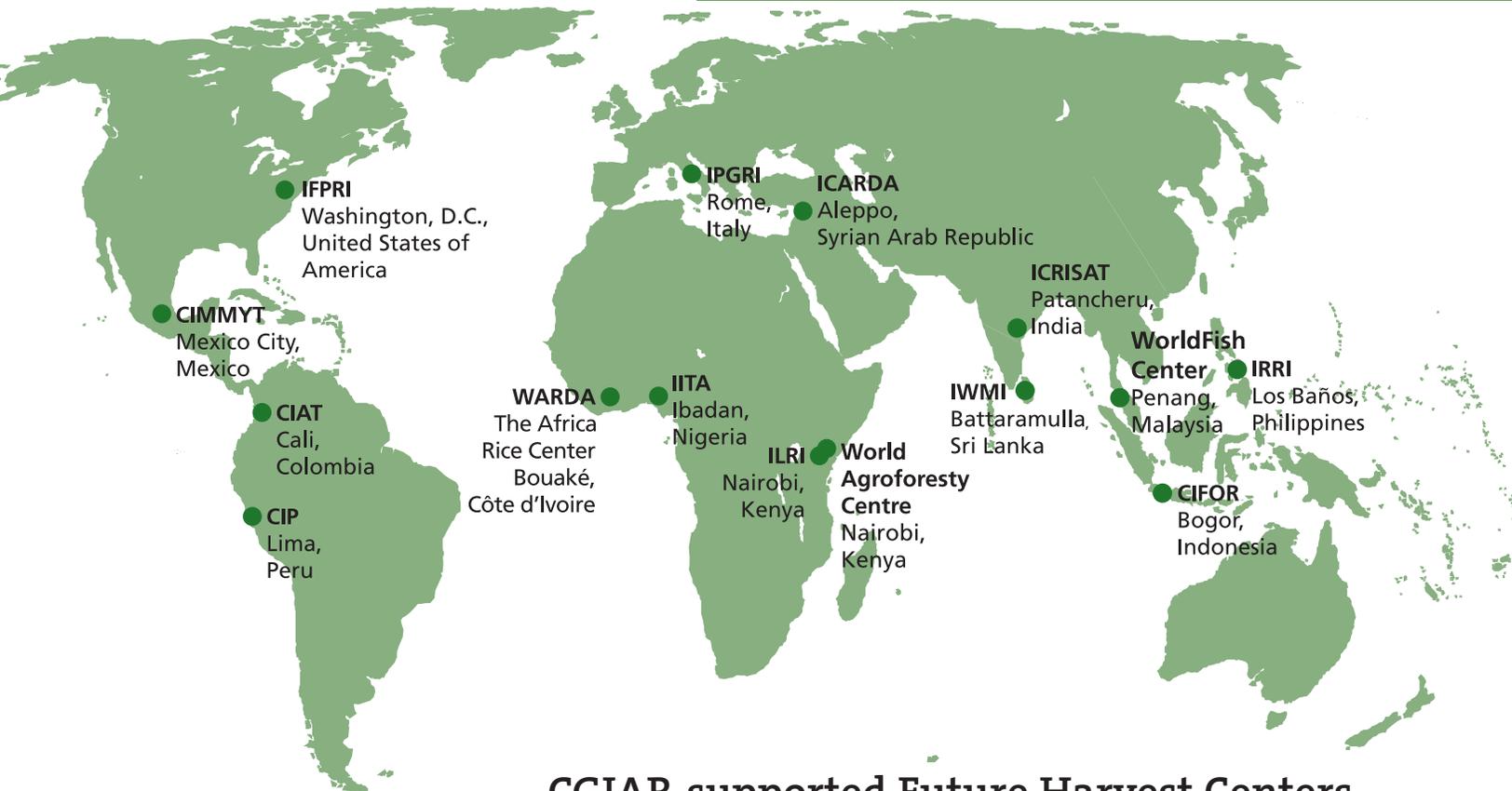
NERICAs are also helping strengthen science and technology capabilities and scientific cooperation in Africa. After initially working with farmers at the local level, WARDA scientists began partnering with national agricultural research programs in 20 African countries, and advanced research institutions in Japan, United Kingdom, and the United States. The Africa Rice Initiative launched in 2002 is serving as a platform for coordination and coalition-building.

NERICAs now occupy about 30,000 hectares in Africa (including about 23,000 hectares in West and Central Africa). They are spreading fast in East Africa; in Uganda alone about 6,000 hectares are planted to NERICAs.

NERICAs' advantages include higher yields, early maturity, savings in labor, and increased resistance to local stresses (e.g. drought, infertile and toxic soils, and pests). They provide better nutrition and are particularly suited for low-input farming conditions common in subsistence agriculture. More than 3,000 family lines have been developed opening up a new world of rice biodiversity.

"NERICAs offer ample proof that quality science, coupled with farmer's local knowledge, can create farming solutions that generate tremendous benefits," said Ian Johnson, CGIAR Chairman and World Bank Vice President for Sustainable Development. "Such efforts need to be showcased and replicated widely to help achieve the Millennium Development Goals by 2015." 🌱

For more information, www.warda.org



CGIAR-supported Future Harvest Centers

International Center for Tropical Agriculture (CIAT)
www.ciat.cgiar.org

Center for International Forestry Research (CIFOR)
www.cifor.org

International Maize and Wheat Improvement Center (CIMMYT)
www.cimmyt.org

International Potato Center (CIP)
www.cipotato.org

International Center for Agricultural Research in the Dry Areas (ICARDA)
www.icarda.org

International Crops Research Institute for the Semi-Arid Tropics (ICRISAT)
www.icrisat.org

International Food Policy Research Institute (IFPRI)
www.ifpri.org

International Institute of Tropical Agriculture (IITA)
www.iita.org

International Livestock Research Institute (ILRI)
www.ilri.org

International Plant Genetic Resources Institute (IPGRI)
www.ipgri.org

International Rice Research Institute (IRRI)
www.irri.org

International Water Management Institute (IWMI)
www.iwmi.cgiar.org

West Africa Rice Development Association–The Africa Rice Center (WARDA)
www.warda.org

World Agroforestry Centre (ICRAF)
www.worldagroforestrycentre.org

WorldFish Center
www.worldfishcenter.org