



Partnerships

IN SCIENCE FOR

Development



FAO-CGIAR: Ever-Expanding and Fruitful Collaboration

Cooperation between the Food and Agriculture Organization (FAO) of the United Nations and the CGIAR dates back to the 1960s, long before most of the international agricultural research centers were created. Indeed, it began some years before the earliest centers now supported by the CGIAR coalesced into the CGIAR System.

At first the focus was on genetic resources, but over time cooperation has expanded and diversified to cover governance, strategic planning, normative and technical cooperation, and information exchange. Cooperation is most extensive in crop production, addressing the development of improved crop varieties, the management of land and water resources, and other topics such as plant protection, seed systems, conservation agriculture and water management. Animal husbandry and health, forestry, fisheries, natural resource management and capacity building — with special attention to strengthening national agricultural research systems — are other important fields of collaboration.

Collaboration between FAO and several CGIAR Centers on the Comprehensive Assessment of Water Management in Agriculture is considered particularly successful. The objective of this initiative is to provide a comprehensive picture of the situation prevailing in water management in agriculture, and of its implications in terms of policy formation and investments for food production, environmental protection and rural livelihood. The results will enable better investment and management decisions on water and agriculture in the near future and over the next 50 years.

A survey on the CGIAR Centers' collaboration with other institutions — conducted in 2006 by the Science Council Secretariat — found that FAO was the only organization among the 3,000 identified that works with all of the Centers. Similarly, an evaluation of FAO partnerships and alliances identified the CGIAR and its 15 Centers as FAO's most frequent partners, and the relationship with them was described as especially intensive and positive.

One of the oldest cooperative relationships in modern agricultural research is also among the strongest today and most essential for the future

The International Treaty on Plant Genetic Resources for Food and Agriculture, adopted by the FAO Conference in 2001 and entering into force in 2004, recognizes the importance of the CGIAR Centers and their *ex situ* collections of crop germplasm. Under Article 15, the treaty gives the Centers a legal framework and provides for contracting parties to give the Centers access to plant genetic resources for food and agriculture. On 16 October 2006, the director general of FAO, acting on behalf of the governing body of the treaty, signed agreements with the CGIAR Centers placing their *ex situ* collections under the treaty (see page 15).

Another example of fruitful CGIAR-FAO collaboration is the country-driven preparation of the *First Report on the State of the World's Animal Genetic Resources*. The report will be considered in September 2007 by the First International Technical Conference on Animal Genetic Resources, to be hosted by the government of Switzerland. Several CGIAR Centers and the CGIAR's Systemwide Genetic Resources Program have been associated with the report's development from its earliest stages.

Budget limitations and the need for greater efficiency and effectiveness in the drive to achieve the Millennium Development Goals (MDGs) point to a need for the periodic review and updating of joint activities between FAO and the CGIAR. The shared challenge of eradicating extreme poverty and hunger (MDG 1), while ensuring environmental sustainability (MDG 7), is a natural starting point for focusing cooperative work. An FAO-CGIAR joint program for the rehabilitation of agricultural and forestry research for food security in the Democratic Republic of Congo, initiated in 2006 and funded by the European Commission, is one good example (see page 13).



FAO-CGIAR collaboration will enable better decisions on water and agriculture management over the next half century.

People's Republic of China: Long History of Partnership

China's history of cooperation in agricultural research and rural development with various international organizations and countries has been long and fruitful. Collaboration between China and the CGIAR dates back to the CGIAR's first years in the early 1970s. Initial collaboration covered only limited areas of research, but the collaboration deepened fundamentally after China became a Member of the CGIAR System in 1984. During the last 3 decades, the CGIAR's collaboration with China has been very successful.

Germplasm exchange. China has received nearly 50,000 accessions of crop genetic material from CGIAR Centers and developed 252 crop varieties using their genetic background. Among them, 160 are wheat, 25 rice, 18 potatoes, 16 sorghum, 15 peanuts and 12 maize. The combined planted area of these varieties has reached 5.6 million hectares. Meanwhile, China has provided more than 20,000 accessions of various crop germplasm to CGIAR Centers for evaluation and distribution.

Scientific collaboration. Over 50 Chinese institutions have collaborated closely with CGIAR Centers. More than 200 collaborative projects between China and CGIAR Centers have ranged widely over agricultural research, extension, education, production and processing. These projects include germplasm collection, storage, characterization, exchange and utilization; crop breeding and biotechnology; integrated pest and natural resource management; sustainable development; macro agricultural policy; postharvest processing; personnel training and capacity building; and international academic and information exchange. Nearly 40 collaborative projects have received national or provincial awards.

Capacity building. Since the 1980s, CGIAR Centers have trained over 4,000 Chinese scientists who have subsequently risen to senior positions in their own institutions, 150 of them becoming project coordinators and 40 of them director or deputy director. Ten have become presidents of provincial academies of agricultural science or government department heads. Ever more Chinese scientists work as internationally recruited staff in the CGIAR and its Centers or serve on the Executive Council or as board members.

Information exchange and conference organization. Over the past 30 years, China has received more than 110,000 copies of agricultural research publications from CGIAR Centers and individual scientists. These have helped Chinese researchers better understand their research areas in the light of broader perspectives. More than 40 international conferences and workshops with sponsorship by CGIAR Centers have taken place in China — and the CGIAR will hold its 2007 Annual General Meeting in Beijing. Meanwhile, China has sent more than 2,000 scientists to attend international conferences and scientific exchanges abroad as part of its collaboration with the CGIAR, thus enhancing international collaboration and heightening China's global impact.

Construction of a collaborative platform. The growing strength of the China-CGIAR partnership is reflected by the establishment in China of liaison offices by seven CGIAR Centers and joint laboratories by five of them. Particularly notable is the recent move to set up an International Potato Center-China center for Asia and the Pacific. These strengthened ties indicate a brilliant future for the China-CGIAR partnership in agricultural research and collaboration.



Active in international agriculture research since the first years of the Consultative Group, China will host the 2007 Annual General Meeting

China has developed 252 crop varieties using CGIAR germplasm.

Democratic Republic of Congo: Facing Up to Challenges

Agricultural research in the Democratic Republic of Congo (DRC) was until 1970 organized mainly through the INEAC, the national institute for agronomic studies that maintained its headquarters at Yangambi and more than 30 centers and stations in different agricultural environments. The diffusion of its high-quality research results to farmers large and small fueled exports of palm oil, coffee, cocoa, rubber and tea. Production of all these commodities has dramatically declined since 1987. One reason for this decline is disintegrating transport infrastructure that cripples the distribution of inputs and marketing of produce; another is limited capacity in agricultural training, research and extension following staff localization in 1973.

According to the World Bank, 92% of households in the DRC now experience food insecurity. Poverty and the resulting unsustainable exploitation of forest resources threaten future development.

Higher education in agriculture was until 1990 found mostly at the Yangambi Institute of Agronomy, but today the universities of Kisangani, Kinshasa and Lubumbashi also have agricultural programs. Agricultural research remains constrained by shortages of qualified scientific staff and teachers, scientific equipment, and Internet connections, as well as by the lack of coherent policies on education and research and development.

Throughout the DRC's difficulties, research Centers supported by the CGIAR have been present, providing training — notably resulting in the formation of the National Institute for Agronomic Study and Research (INERA by its French acronym) with staff trained by the International Livestock Research Institute and World Agroforestry Centre — and new crop cultivars to enhance food security.

An important contribution from the International Institute of Tropical Agriculture, though INERA, has been cassava resistant to the cassava mosaic virus. Resistant varieties are in the pipeline to nongovernmental organizations in collaboration with the Food and Agriculture Organization of the United Nations and the South-East Consortium for International Development of the United States.

Musa (banana and plantain) is the second most important staple food in the DRC after cassava and is particularly important to the poor. The major constraints to *Musa* productivity are low soil fertility, banana bunchy top virus, banana weevil and banana *Xanthomonas* bacterial wilt, which is spreading across eastern DRC at 30 kilometers per year. High-yielding and resistant *Musa* hybrids from the Honduran Foundation of Agricultural Research, introduced through Bioversity International, are being tested by INERA at the University of Kisangani. Meanwhile, Bioversity supports one study on banana and plantain diversity in the northeastern Congo Basin and another characterizing bananas in eastern Congo. Plantain varieties are being collected, established in field collections, duplicated *in vitro* and transferred from Kisangani to Bioversity's International Transit Center for exchange.

The recent emergence of political stability presents many opportunities for new partnerships to improve crops, forestry, aquaculture and fisheries. Efficient agricultural development demands a coherent education and research policy arising from a plan to be devised by INERA in partnership with universities and CGIAR Centers.

Dr. B. Dhed'a Djailo
Academic Secretary General
Yangambi Institute of Agronomy

Horn plantain is collected in the village of Yalokombe in eastern Democratic Republic of Congo for conservation and exchange.



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Japan International Research Center for Agricultural Sciences: Aligning Cooperation With Overseas Development Assistance Goals

Japan refines its priorities to ensure the continued relevance of its long tradition of collaborative international agricultural research

The Japan International Research Center for Agricultural Sciences (JIRCAS) is the sole national institute in Japan that undertakes comprehensive research on agriculture, forestry and fisheries technology in developing areas of the tropics and subtropics through international collaboration and cooperation. As such, JIRCAS is a focal institution of the CGIAR and has developed strong partnerships in the CGIAR System. The successor organization of the Tropical Agricultural Research Center following its reorganization in 1993, JIRCAS has enjoyed a long history of collaborative research programs with, since its establishment, almost all of the CGIAR Centers. In 2006, JIRCAS sent nine researchers to engage in collaborative research in six CGIAR Centers.

The Second Medium-Term Plan (2006-2011) of JIRCAS sets out two major programs in line with Japan's policy on overseas development assistance. The first is research and development of agricultural, forestry and fisheries technologies that aim to solve global food and environmental problems. Second is the collection, analysis and publication of information revealing trends in international food, agriculture, forestry, fisheries and farming systems. JIRCAS will continue to strive to achieve the goal of accurately determining and satisfying the demands of the international community. To achieve this goal, the new Medium-Term Plan calls for JIRCAS to conduct effective strategic collaboration with CGIAR Centers, thereby continuing to achieve greater scientific contributions to improved agriculture in developing countries.

JIRCAS's past contributions are legion. For example, it introduced to the world the dehydration responsive element binding (DREB) genes in the model plant *Arabidopsis thaliana*. DREB genes control the expression of more than 40 *Arabidopsis* genes responsible for tolerance to such environmental stresses as drought, salinity and low temperature. Using these genes, JIRCAS has started collaborative projects with several CGIAR Centers to develop novel varieties of resilient crops.



Japan collaborates in applying DREB genes to develop novel crop varieties that tolerate drought, salinity and low temperature.

Aside from research programs, JIRCAS has organized international symposia cosponsored by the CGIAR. In 2005, the international symposium Perspectives of R&D for Improving Agricultural Productivity in Africa took place in Tokyo. In 2006, marking the International Year of Deserts and Desertification, the symposium Living with Deserts was held in Tokyo.

Another successful innovative partnership is the Japan-CGIAR Fellowship Program. The Japanese Ministry of Agriculture, Forestry and Fisheries launched the program in 2004, and JIRCAS administers it. The fellowship was designed to help young Japanese scientists expand their expertise in international agricultural research for development. In 2006, during the fellowship's third phase, 10 fellows worked at CGIAR Centers for about 2 months each, bringing to 32 the number of fellows who have successfully completed the program. Many have spoken very positively of their experience.

"The program allowed me to become acquainted with many researchers from various countries and to learn advanced research techniques," reports Yuhei Hirono, who completed his research fellowship at the International Rice Research Institute. "This experience was precious for me. The fellowship program is a valuable opportunity for young researchers to broaden their horizons."

Systemwide Genetic Resources Program: Where It All Comes Together

The long process of building a coherent global system to govern the conservation and exchange of crop genetic resources is finally coming to fruition — and celebrated by an award for the genebanks at the heart of the matter

Several developments in 2006 made it a banner year for ensuring durable world food security. Genebanks were upgraded, new agreements on access to accessions and information were signed, and the Global Crop Diversity Trust made its first grant of support — to a genebank of the CGIAR. These efforts were recognized with the presentation of the CGIAR Partnership Award to the System-wide Genetic Resources Program.

Eleven of the Centers supported by the CGIAR manage genebanks, which together contain over 600,000 accessions of about 3,000 staple crop, forage and agroforestry species essential to human food security and nutrition. These genebanks, which are fundamental to the CGIAR's work on plant improvement, hold the world's largest collections of plant diversity for food and agriculture, repositories not only of plant diversity but also of information and expertise unique in the scientific and agricultural spheres. The information, and the accessions it describes, are freely available to all.

In 1994, the CGIAR Centers, recognizing the status of their collections as global public goods and their importance to human development, placed the collections under the aegis of the Food and Agriculture Organization (FAO) of the United Nations, held in trust for the world community.

The agreements that conferred this in-trust status were interim, pending renegotiation of the International Undertaking on Plant Genetic Resources to harmonize it with the Convention on Biological Diversity. That long process resulted in the legally binding International Treaty on Plant Genetic Resources for Food and Agriculture, which came into force in 2004 and paved the way for the Centers to sign new and definitive in-trust agreements with the governing body of the treaty in October 2006.

The signings give legal weight to the central role that the in-trust collections will play in the multilateral exchange system established by the treaty. This system will guarantee free, long-term access to some of the world's most important collections of agricultural biodiversity, while requiring commercial users to share benefits with the global community. At its first meeting in June 2006, the governing body of the treaty adopted a standard material transfer agreement that sets out terms governing access and benefit sharing for the multilateral system and will accompany all transfers of plant material by the CGIAR Centers and all parties to the treaty, which number more than 110.

The in-trust crop genetic resources are vital to the CGIAR's achieving its objectives, particularly the



CGIAR genebanks hold the world's largest collections of plant diversity for food and agriculture.

System research priority to promote the conservation and characterization of staple crops. An investment in securing the collections is thus an investment in the CGIAR's chief goals. Over the past decade, the CGIAR Centers carefully reviewed their genebank operations and calculated the costs of effectively and efficiently conserving the collections under their care. This allowed them to identify practical and strategic actions to ensure that they can meet their obligations as trustees.

The costing studies provided a sound basis for securing World Bank support to upgrade the collections. Phase 1 of the upgrading, budgeted at US\$13.6 million, ended in 2006. Its achievements are impressive, reflecting the twin targets of the project: to upgrade the facilities at the 11 Centers with genebanks and to put those facilities to work. Following the recommendations of an external review of the project, a second phase got underway in January 2007. Phase 2 will complete the upgrading of the in-trust collections and support the CGIAR's intention to play a central role in the development and implementation of a global system for the conservation and use of crop diversity in support of the International Treaty on Plant Genetic Resources for Food and Agriculture.

The costing studies were also an important contribution to the Global Crop Diversity Trust's campaign for an endowment fund to support in perpetuity the world's most important crop genetic resources collections, including those held by the CGIAR Centers. The trust, established by the CGIAR Centers and FAO

in 2004, announced its first long-term conservation grant to a Center collection — the International Rice Genebank at the International Rice Research Institute — at the CGIAR Annual General Meeting in 2006.

The capacity of the CGIAR Centers to meet the policy and technical expectations that their in-trust role has created is greatly enhanced by their participation in the Systemwide Genetic Resources Program (SGRP). Established in 1994, the SGRP has brought coherence, effectiveness and efficiency to the genetic resources activities of the CGIAR System. In 2006, the CGIAR honored the SGRP and its participants — the 11 CGIAR genebanks, International Food Policy Research Institute, FAO and SGRP Secretariat — with its prestigious partnership award, accepted on their behalf by Jane Toll, the SGRP coordinator. The award recognized the effectiveness of the team's efforts to protect the in-trust collections under their care as well as the leadership of the Centers in the global plant genetic resources community.

The CGIAR Centers have made valuable strides — many of them over the past year — toward a shared vision of a global system for the conservation and use of vital crop diversity. Their efforts have positioned the CGIAR to give coherence and leadership to the global system, placing the in-trust collections at the heart of the matter, where they will underpin food security for humanity's future.

Members' Perspective: Engage Civil Society and Embrace Diversity

The CGIAR and its critics must seek opportunities to learn from each other with mutual respect for their differing roles, views and approaches

Many Members of the CGIAR joined the chorus of support for new efforts to enhance partnerships with civil society organizations (CSOs), when it came time to discuss this key agenda item during the Annual General Meeting 2006 (AGM06) Business Meeting. Three Members — Norway, United Kingdom and United States — were especially supportive, not just then but earlier, in the months leading up to the Civil Society-CGIAR Forum held at AGM06.

Attracting 400 participants, among them about 100 CSO representatives, the forum reaffirmed the CGIAR's commitment to working with this numerous, diverse and vital group of stakeholders. Its overarching goal was to highlight innovative ways of making research and development more relevant and effective in improving rural livelihoods. To this end, the event fostered the sharing of information about current and past partnerships with community-based organizations, universities and nongovernmental organizations, and it gathered a bountiful harvest of ideas for improving and expanding the CGIAR's engagement with them.

The idea of the forum having captured the imagination of representatives from Norway, United Kingdom and United States in particular, as mentioned above, they committed funds to cover the costs of the event and of the Pilot Competitive Grant Program announced at its conclusion. To find out more about the views that led these three Members to pledge this support, the CGIAR Secretariat consulted recently with

- Ruth Haug, professor and head of the Department of International Environmental and Development Studies at the Norwegian University of Life Sciences;
- David Howlett, team leader for growth and livelihoods in the Central Research Department

of the UK's Department for International Development; and

- Franklin Moore, director for environment and science policy at the US Agency for International Development.

The responses given below to seven forward-looking questions about the CGIAR's collaboration with CSOs are a synthesis of their replies, which proved remarkably congruent.

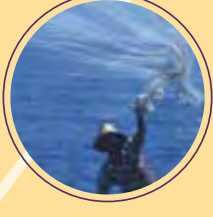
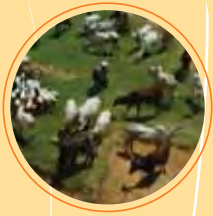
In partnerships with CSOs, how can the CGIAR Centers reconcile their desire to enhance development impact with their need to remain focused on strategic research leading to the generation of international public goods?

We need to challenge the view that, when CGIAR Centers engage with CSOs, they are necessarily doing development rather than the research they see as their mandate. On the contrary, the purpose of this engagement is to help ensure that research is sharply focused on the needs of the poor, as illustrated by the dozens of partnerships featured in the Innovation Marketplace at AGM06. There need not be a dichotomy between research and development in these partnerships but rather the kind of careful integration that generates relevant solutions that work in the field.

What are some ways in which the CGIAR can foster collaboration with CSOs?

The CGIAR and the CSO community must seek opportunities to learn from and listen to each other with mutual respect for their differing roles, views and approaches. To this end, the CGIAR needs to meet CSOs in their own arenas, in addition to inviting CSOs to attend CGIAR events. In these encounters, the CGIAR needs to show that CSO





perspectives, even those that meet opposition, can still influence CGIAR decisions and actions.

Given the great number and diversity of CSOs involved in agricultural research and development, how can the CGIAR work most effectively with them?

The CGIAR should have a blueprint for developing genuine partnerships with diverse actors at different levels in pursuit of clear purposes. National and local CSO partners are critically needed for identifying problems, facilitating dialogue with technology users and fostering rural innovation through shared projects. But projects should not be the exclusive focus. The CGIAR also needs CSO allies at the global level to make the case for agricultural research as a key contributor to economic growth and social development. In addition, individual Centers and the CGIAR as a whole need to form alliances with CSOs through which they can exchange constructive criticism and, when necessary, challenge cherished assumptions.

What can we expect to gain from projects to be developed through the recently created Pilot Competitive Grant Program?

It is important for CSOs to have ownership of the program, so it is not viewed as just a way for the CGIAR to provide CSO “clients” with financial assistance. The purpose should rather be to learn how the CGIAR can best work with diverse stakeholders. This, in turn, requires a conscientiously facilitated learning process across projects grounded on shared monitoring and evaluation. The projects also need ways to communicate with one another and to share lessons learned. If successful, the projects can form the beginnings of a CSO-CGIAR network that has the potential to change the way we work.

What opportunities might new Challenge Programs present for enhancing CSO-CGIAR collaboration, and how can the programs take advantage of these opportunities?

It is important that CSOs be involved early on in these programs, not as an afterthought. Moreover, they should be present, not only to help secure funds, but to ask hard questions about the challenges as defined by the CGIAR and to make contributions that are essential for meeting these challenges.

In what ways have CSOs influenced Members' views about agricultural research and development?

CSOs in the North are well organized, and the quality of their work is steadily improving. As a consequence, they exert growing influence on research — both in the CGIAR and more generally — with respect to its environmental impacts, relevance for the poor and benefits for particular groups such as women, indigenous peoples and others who are often marginalized. Another of these CSOs' concerns centers on genetically modified organisms. The question is this: How well do they represent voices from the South? Perhaps, only somewhat. So, how can we do a better job of listening to Southern voices, of providing resources for this purpose, so that Southern partners also have the chance to challenge our assumptions?

How should the CGIAR handle its relationships with CSOs that are highly critical of its actions and positions on certain issues?

The CGIAR should not shun criticism from CSOs but rather remain open to their feedback and to new options for improving performance.

Innovation Marketplace: Honoring the Best of the Best

Progress in the fight against poverty, hunger and environmental degradation can appear elusive. Global climate change alone is a monumental problem whose solution seems veiled in clouds of complexity. But, like satellite imagery zooming in on cities, villages and individual dwellings, a closer look at local and regional efforts to address global challenges offers a refreshing perspective.

In many developing countries, civil society organizations (CSOs) are pairing with such international scientific networks as the CGIAR to tackle everything from malnutrition to women's empowerment, crop improvement and rainforest protection. The results are real and gratifying, especially so regarding the CSO-CGIAR partnerships highlighted at the third and largest Innovation Marketplace, a centerpiece of the CGIAR's 2006 Annual General Meeting.

The CGIAR selected more than 50 CSO partnerships — the best of the best — to compete for the 2006 Innovation Marketplace Award. The eye-catching exhibits offered an unforgettable tribute to the solid accomplishments of CSO-CGIAR partnerships and a rich legacy of best practices.

Five of the partnerships received the Innovation Marketplace Awards, including the prestigious People's Choice Award. The five awards combined included \$30,000 in prize money to be used for strengthening collaborative capacity.

Eat Orange! combats malnutrition in sub-Saharan Africa, where more than 40% of children under age 5 are vitamin A deficient, significantly worsening their risk of blindness and death. A partnership of Helen Keller International (HKI), HarvestPlus Challenge Program and International Potato Center, Eat Orange! launched an aggressive educational and marketing campaign to promote vitamin A-rich orange-fleshed sweetpotatoes, prompting more than 115,000 families in Burkina Faso, Mozambique and Niger to incorporate the healthful tubers into their diets.



Winners of 2006 Innovation Marketplace with judges and the CGIAR chair.

Fifty of the most effective partnerships submitted were selected to compete for five Innovation Marketplace Awards

"We're using the award money to expand our work," explained Shawn Baker, HKI's vice president and regional director for Africa. "Our vision is to have a presence in at least five more countries over the next 5 years."

Water for Life, a creative partnership between Fundacion Natura Bolivia and the Center for International Forestry Research, pioneered payments for environmental services to conserve threatened cloud rainforests and protect watersheds in the Santa Cruz area of Bolivia. Upstream landowners receive training in honey production and one artificial beehive for every 10 hectares of threatened rainforest they have conserved for a year. Downstream users, who suffer severe economic losses when water flows are restricted, contribute to the payment scheme.

"Since December 2006, we've added hundreds of hectares of cloud rainforest to the project," said Nigel Asquith, director of science for Natura Bolivia. "Local governments, which represent downstream interests, have committed \$3,000 to a new water fund. We're trying to develop neighboring watersheds in Latin America and link with similar efforts in South Africa and India."

The New Public-Private Partnership to Develop Irrigated Rice is the outgrowth of an innovative alliance between the Latin American Fund for Irrigated Rice (FLAR by its Spanish acronym) and the International Center for Tropical Agriculture. The partnership, which teams the Center with 14 Latin American countries, was created to meet the needs of farmers and industry for innovations to make irrigated rice production sustainably efficient, competitive and profitable. The award money will be used to build FLAR's institutional strength, the key to its success in helping poor farmers. Gonzalo Zorrilla, FLAR's executive director, is enthusiastic about the possibilities.

"We're improving the FLAR network and supporting technical activities at the country level," Zorrilla said. "For example, annual meetings on tropical and temperate environments will enable us to maximize interactions with scientists and researchers."

Nine varieties of irrigated rice were released in 2006 and an additional three varieties in the first quarter of 2007.

"FLAR's regional approach is critical," Zorrilla added. "And the private sector's strong representation helps ensure that technical solutions match the needs and demands of our farmers."

Sunn Pest Management, a 10-year collaboration between the University of Vermont and the International Center for Research in the Dry Areas aims to improve crop production in impoverished regions of the Middle East. The sunn pest is a group of insects that inject saliva into wheat, breaking down its gluten and harming the baking quality of flour made from it. It is prevalent throughout West Asia and in parts of Central Asia and North Africa.

The partnership has brought policy change, as Turkey, Syria and Iran have stopped aerial applications of pesticides to combat the sunn pest, applying instead insect-killing fungi as biological control and using novel screening methods to identify resistance in wheat.

"This award shows donors the importance of our work," said Margaret Parker, a university entomologist who worked with colleague Bruce Parker to establish the partnership. "The award money is helping to keep up the momentum so that we're ready when larger resources arrive."

Better Policy and Management Options for Pastoral Lands is a result of collaboration by the Kitengala Iparakuo Landowners Association and the International Livestock Research Institute (ILRI). Under this partnership, wildlife conservation organizations lease land from Kenyan pastoralists to conserve for seasonal wildlife migrations. Participating families continue to graze their livestock on the land but agree not to fence, develop or sell it. Significantly, women who manage households receive most of the lease income.

"This award has shown us that progress can be achieved through partnership," said Ogeli Makui, program coordinator. "A number of worthwhile projects have been identified by the community — for example, expanding herds of dairy goats in partnership with Heifer International, Kenya Wildlife Service, ILRI and the local community."

What about the future? "The Kenya Wildlife Service has started contributing to the lease program, and about 3,000 acres [1,200 hectares] have been added," Makui said. "The service is committed to funding the same acreage for the next 4 years. We're hopeful that we'll realize our goal of leasing and conserving 60,000 acres in perpetuity."

These award-winning collaborations show that combining innovative partnerships with science-based solutions can bring measurable progress against pressing poverty, food security and environmental problems. CGIAR Centers and Challenge Programs have active partnerships with nearly 1,000 CSOs, whose unique perspectives and creative approaches are invaluable for promoting agricultural growth, protecting the environment, and fostering human health and well-being.