

# An update from Robert Zeigler

## DIRECTOR GENERAL



It is hard to believe that one year has already passed since my arrival as IRRI's eighth director general on 21 March 2005. In my remarks concluding the BOT meeting during which my family and I were officially welcomed back into the IRRI community on 1 April 2005, I stated that we had the feeling that we were returning home because we had been here previously during our formative years.

The rich Filipino culture and IRRI's unique set of values from both scientific and humanitarian points of view formed a fertile environment for the growth of my family. And the most important parts of my scientific and professional growth were right here at IRRI as well. This past year has simply reinforced these feelings as I see firsthand that the Institute continues to have major impact and make differ-

ences in people's lives like no other institution on the face of the Earth.

It's been a busy year of achievement and progress as we complete the research agenda of our current medium-term plan and chart activities for the next 10 years in our ongoing strategic planning. In this brief update, I will summarize some of the Institute's research discoveries and other significant endeavors. You can find more details elsewhere in this annual report.

### RESEARCH PROGRESS IN 2005

The United Nations Millennium Development Goals ([www.undp.org/mdg](http://www.undp.org/mdg)) have achieved much, but considerable work remains. To this end, rice research in general and IRRI in particular are as important as ever. In 2005, IRRI made strong progress in a broad range of research that has, can, and will contribute further to the Millennium Development Goals (MDGs)—especially goal 1, the eradication of extreme poverty and hunger. IRRI's role in these challenges has been further boosted by the Institute stepping up its research into rice grain quality and nutrition and so boosting the fight against the hidden hunger of nutrient deficiency that plagues much of the rice-eating world.

In 2005, IRRI consolidated its research and related activities into 11 projects under four programs—Genetic resources conservation, evaluation, and

gene discovery; Enhancing productivity and sustainability of favorable environments; Improving productivity and livelihood for fragile environments; and Strengthening linkages between research and development. Much of the work continues to be guided by and implemented through two research consortia—the Irrigated Rice Research Consortium and the Consortium for Unfavorable Rice Environments—which bring together IRRI scientists and their colleagues from the national agricultural research and extension systems (NARES) of the institute’s partner countries.

The details of our research progress and achievements can be found starting on page 13.

### CHARTING IRRI’S FUTURE

When I “fired the starting gun” during a Thursday seminar on 31 May to begin our strategic planning process that would lead, from that point to this writing, to the development of a new strategy, a business plan, and a medium-term plan, I challenged IRRI staff members to think big, but to make sure that we got that planning right. I pointed out that the social, political, economic, and technological environment today is very different from that when IRRI developed its current strategy, *IRRI Toward 2020*, in 1996. New science and technology, the changing nature of our national partners, and the increasing number of alternate suppliers of rice research, to name but a few items, are both challenges and opportunities for the Institute.

I am pleased with how the strategic planning process has played out, which began with a consultation workshop of 25 external experts on 8-10 August, which was followed immediately by a brainstorming workshop for a cross section of IRRI staff in Tagaytay on 16-17 August (photo). Then, the Annual Program Review, 14-15 November, was primarily devoted to



fleshing out the five strategic goals that had evolved in previous meetings and workshops.

These goals center on (1) reducing poverty through improved and diversified rice-based systems; (2) ensuring that rice production is sustainable and stable, has minimal environmental impact, and can cope with climate change; (3) improving the nutrition and health of poor rice consumers and rice farmers; (4) providing equitable access to information and knowledge on rice and helping develop the next generation of rice scientists; and (5) providing rice scientists and producers with the genetic information and material they need to develop improved technologies and enhance rice production.

It is clear, especially with the first three goals listed, that IRRI is strategi-

cally linking its activities with the MDGs.

As of this writing, the strategic plan and the business plan for its implementation were nearly ready for sharing with the BOT, which will give final review and sign-off during its 5-7 April 2006 meeting. With BOT approval, IRRI will release in June 2006 a detailed publication that spells out our vision and plans for the next 10 years, which will be reviewed by the CGIAR Science Council in advance of the CGIAR Annual General Meeting later in the year.

A feature of this plan that sets it apart from other plans within the CGIAR community is our firm commitment to very forward looking projects that, if successful, will revolutionize agriculture for future generations of rice farmers and consumers—much like earlier innovations by IRRI have changed the face of rice-growing and -consuming Asia.

We look to adopt a major project on climate change that will surely transform the way rice is grown and bred. Likewise, a project on developing C4 rice will, if successful, create a rice plant that is able to withstand higher temperatures, use nitrogen fertilizer and water more efficiently, and yield 30% more with the same inputs.

IRRI is also progressing in developing rice lines that harbor endogenous  $N_2$ -fixing bacteria that will greatly reduce the plant’s need for exogenously applied N fertilizer—something that will become increasingly important for the economics of rice growing and the health of the

environment. Finally, we will work to develop drought-tolerant rice for rainfed and water-limited irrigated environments. We believe that within 10 years we will have rice lines in the field that will produce well in the increasingly water-limited environments of Asia and sub-Saharan Africa. IRRI expects to provide seed money for these projects from our strategic reserves with the expectation that interested donors will join us in supporting these visionary activities.

## FUNDING

When IRRI management updated the BOT during its September 2005 meeting in Bali, Indonesia, on funding and expenditures for the Institute's 2005 budget, the information showed an expectation of unrestricted revenue at US\$18.280 million and a net unrestricted expenditure at \$19.200 million, with a planned strategic deficit of \$0.920 million, which would be covered by the Institute's accumulated reserves. Since that BOT meeting, two things happened. The US\$ underwent a substantial rise in value and our number 1 and 2 leading donors (Japan and the United States) advised us of very significant cuts in their grants to IRRI for 2005. IRRI is adjusting its spending and project development strategies to adjust to these relatively large cuts from these key donors with little reason to expect that they will be restored in 2006.

A summary of financial support begins on page 55. Appendix 3 beginning on page 160 contains the audited financial statements.

## BOT MEMBERSHIP CHANGES



IRRI welcomed **Mangala Rai** (left), secretary of the Government of India's Department of

Agricultural Research and Education (DARE) and director general of the Indian Council for Agricultural Research (ICAR), to IRRI's Board of Trustees. He is completing the final two years (2006-07) of the unfinished second term of **Kay Beese** of Germany, who resigned effective 8 November 2005. Also welcomed was new Philippine Department of Agriculture Secretary **Domingo Flores Panganiban** (right), who replaced **Arthur C. Yap** as an ex officio member. We also bade farewell to **Shigemi Akita** (Japan, 2000-05) and **E.A. Siddiq** (India, 2000-05).



## CRIL: THE IRRI-CIMMYT ALLIANCE'S FIRST TANGIBLE OUTPUT

The long, arduous, and expensive process of developing new crop varieties received a major boost on 24 January 2006 with the joint launch in Mexico and the Philippines of IRRI and CIMMYT's new scientific program that unites key databases and research on the planet's three most important crops: rice, wheat, and maize.

The new Crop Research Informatics Laboratory (CRIL) and its associated research program were officially launched via a video conference link between IRRI and CIMMYT (photo above right). This is the first major output of an Alliance between IRRI and



CIMMYT that was formally established earlier in 2005. The new lab at CIMMYT will link with existing facilities at IRRI, heralding a new era in rice research, especially in such areas as the development of improved crop varieties. Graham McLaren, IRRI senior scientist, biometrics, is heading CRIL and will spend several months each year at CIMMYT in Mexico.

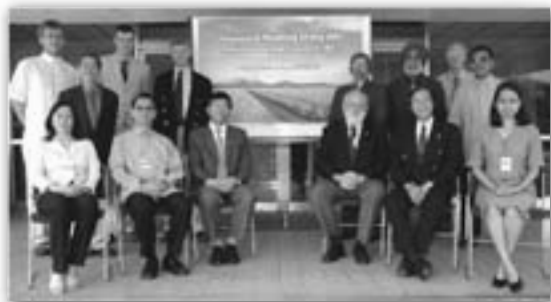
## IRRI ENVIRONMENTAL COUNCIL GETS ROLLING

On 18 April 2005, when the IRRI Environmental Council (IEC; photo at right next page) held its inaugural meeting, I highlighted the need to give explicit attention to potential environmental impacts of IRRI's activities at the Institute's research station and where IRRI technologies can be adopted. I stressed that the Institute should incorporate environmental considerations into its work in a sincere and fundamental way, not by simply repackaging what IRRI is already doing.

In agreeing that IRRI should pursue an environmentally sustainable Doubly Green Revolution, the IEC created a secretariat and developed a work plan to begin implementing IRRI's Environmental Agenda (IEA). I invited the following IEC members to serve as theme leaders: **Sushil Pandey** (poverty), **Deborah Templeton** (new IEC member replacing **Renee Lafitte**, environmental sustainability and

impact), **Darshan Brar** (biotechnology), **Duncan Macintosh** (public awareness), **Ruaraidh Sackville Hamilton** (biodiversity), **T.P. Tuong** (water use), **Arnold Manza** (environmental management system), and **John Sheehy** (climate change).

Major events in 2005 related to the IEA included World Environment Day, 5 June 2005, on which the Web site ([www.GreenRice.Net](http://www.GreenRice.Net)) was launched, and the IEC hosting of a workshop, 4-6 October, to integrate environmental issues into our strategic plan. This event was facilitated by **Professor Jose Furtado**, a former World Bank professional in environmental assessment and currently a visiting professor at the Imperial College, London.



Also, in line with the goals and objectives of the IEA, the first draft of the Environmental Management System (EMS) was developed by the Experiment Station in 2005. A proposed implementation work plan was presented to the IEC during its 12 December meeting. Formal implementation of the EMS work plan began with a seminar-workshop held on 16 December 2005 for Experiment Station staff. The EMS, designed to conform to the international standard ISO14001, is envisioned to serve as a management

tool to help us ensure that our activities at the research center are conducted in an environmentally friendly way and in a sustained manner.

### BANGLADESH MINISTER OF AGRICULTURE VISITS IIRI

**M.K. Anwar**, Bangladesh Minister of Agriculture, visited IIRI over a 3-day period in late April 2005. Various IIRI staff members discussed important topics including progress on development of salinity-tolerant and submergence-tolerant varieties, research on Golden Rice, IIRI's strategy for maintaining rice biodiversity, and future directions of IIRI-Bangladesh collaboration. He also visited the Gene Array Molecular Marker Applications Laboratory, the Transgenic Laboratory, the International Rice Genebank, and the IIRI plots to see aerobic rice and the wet and dry irrigation system.

### IIRI SEEKS ASEAN SUPPORT FOR MAJOR PROPOSALS

IIRI presented two important proposals during the *5th ASEAN Ministers of Agriculture and Forestry Plus Three (AMAF Plus Three) Meeting* in Tagaytay City on 29 September. This was a historic event in that it was the first time ever that IIRI participated in an ASEAN meeting.

I presented proposals that call for an ASEAN meeting on the future development of the Rice Knowledge Bank (**RKB**; [www.knowledgebank.irri.org](http://www.knowledgebank.irri.org)) to provide farmers with direct



access to the latest rice-farming strategies and technologies, and a meeting or workshop focusing on the future training and education of a new generation of rice scientists. IIRI proposes to organize and host the RKB meeting at our headquarters in Los Baños, while the workshop on training and educating new rice scientists could possibly be held in Singapore, to be organized jointly by the Institute and other possible partners in the ASEAN region.

After the AMAF Plus Three Meeting, IIRI hosted four ministers at headquarters on 1 October for further discussions: **H.E. Dr. Anton Apriyantono**, Minister of Agriculture, Indonesia; **H.E. Dr. Siene Saphangthong**, Minister of Agriculture and Forestry, Lao PDR, and former IIRI BOT member; **H.E. Shariff bin Haji Omar**, Deputy Minister of Agriculture and Agro-Based Industry, Malaysia; and **H.E. Major General Htay Oo**, Minister of Agriculture and Irrigation, Myanmar.

On 8-10 August, IIRI staff members **Johnny Goluyugo** and **Paul Hilario** participated in the *9th ASEAN Food Conference* in Jakarta, Indonesia, back to back with the *7th ASEAN Science Technology Week (ASTW)*.

### SPEECH BEFORE THE FOREIGN CORRESPONDENTS' CLUB OF JAPAN

In a continuing effort to deliver IIRI's message in various forums, I addressed a professional luncheon of the Foreign Correspondents' Club of Japan (FCCJ) on 3 June. I described the

challenges of feeding Asia, such as growing population and land and water scarcities, and how IRRI is tackling them. I said that “while Asia does seem to be on track to meet MDG#1 (eradicating extreme poverty), the recent UNDP task force report on *Halving Hunger: it can be done* points out that there are still more than 521 million food-insecure Asians in deep poverty traps. These traps are ensnaring people who often live on unfavorable lands with poor soils and lack of water and have poor access to markets and information.”

### ICAR-IRRI AGREEMENT PROVIDES RICE RESEARCH VISION UNTIL 2008

In late June, the Indian Council of Agricultural Research (ICAR) and IRRI announced details of an important new international agreement to support and facilitate India’s national rice research efforts over the next 3 years. The new ICAR work-plan agreement (2005-08) with IRRI ensured that India will continue to have access to the very best and latest public rice research and technologies being developed in other countries. Since the first such agreement in 1991, the number of Indian institutes involved has doubled from 26 to 52 and projects developed have gone from 27 to 47. The ICAR-IRRI agreement also ensures that other rice-producing countries around the world will have access to the best Indian rice research. India has the biggest community of rice researchers and scientists in



the world and their work is much in demand in other countries.

The signing of this agreement was part of my inaugural trip to India as IRRI’s new DG. Afterward, Deputy Director General for Research **Ren Wang**, IRRI Representative in India **J.K. Ladha**, and I spent several days inspecting IRRI projects and meeting with important collaborators. This included the signing in Delhi of a memorandum of agreement with the Mahyco Research Foundation that covers collaboration in functional genomics for brown planthopper resistance, capacity building through human resource development/training for marker-assisted selection, and exchange of germplasm.

### ADB PRESIDENT VISITS IRRI HEADQUARTERS

**H**aruhiko Kuroda (right in photo), the new president of the Asian Development Bank, one of IRRI’s most important and committed donors, visited the Institute for the first time on 26 July. I had a thorough discussion with Mr. Kuroda on challenges facing rice growers and consumers in Asia. **Ren Wang**, IRRI deputy director general for research (center in photo), gave an overview on the impact of ADB-funded projects at IRRI.



### BOB HAVENER PASSES AWAY IN CALIFORNIA

**R**obert Dale “Bob” Havener passed away in his sleep on the evening of 3 August at his home in Solvang, California. He had celebrated his 75th birthday with family and friends only 10 days earlier on 24 July. He was interim director general of IRRI for 8 months in 1998 and a great colleague and friend to many staff members. A memorial service in his honor was held on 9 August at IRRI in the auditorium in Chandler Hall. After the service, a tree was planted in Bob’s memory on “DG Row” along Pili Drive. On 7 April 2006, at the conclusion of the recent IRRI Board meeting, the auditorium in Chandler Hall was officially named the Robert D. Havener Auditorium in his honor.



A plaque at the entrance reads: “Dedicated with gratitude, to a true visionary, humanitarian, and friend. For more than five decades, his resourceful leadership and communication skills at IRRI and other institutions created fertile environments in which scientific ideas and research programs flourished, ultimately leading to increased food security worldwide. He transcended cultures, religions, and generations. With his actions and wise counsel, Bob touched millions of people. His steady hand, wisdom, sound judgment, patience, humility, and—above all—compassion were critical to guiding IRRI through challenging times.”

### IAARD HOSTS CORRA, INTERNATIONAL RICE CONGRESS, AND BOT MEETING

In Bali, Indonesia, the Indonesian Agency for Agricultural Research and Development (IAARD) hosted the 9th Annual Meeting of the Council for Partnerships on Rice Research in Asia (CORRA) (9-11 September), an International Rice Congress (12-14 September), and the IRRI BOT meeting (14-15 September). At the CORRA meeting, the world's major rice-producing countries, including the two most populous nations, China and India, emphasized the importance of continuing to develop new rice varieties to guarantee Asia's food security and support the region's economic development.

### IRRI-CHINA WORK-PLAN MEETING

The major impact of IRRI germplasm on rice production in China was highlighted during the second IRRI-China Work-Plan Meeting and Rice Science Forum in Hangzhou, China, 11-12 October. The event attracted a large cross-section of IRRI and Chinese researchers. The event was co-organized by the Chinese Academy of Agricultural Sciences (CAAS) and supported by the Chinese Ministry of Agriculture and the National Natural Science Foundation of China (NSFC), and included field tours to the China National Rice Research Institute (CNIRRI).

Prior to the Work-Plan Meeting, I visited upland rice farms in Simao Prefecture to observe the performance of high-yielding upland rice varieties that are yielding 3 to 4 tons per hectare in farmers' fields. Upland rice farmers



(like the one I'm pictured with above) and local authorities showed me how high-yielding upland rice varieties have transformed the traditional low-yielding shifting cultivation system of Yunnan into a highly productive permanent upland rice-based system within the short span of 10 years.

After the Work-Plan Meeting, I went to Beijing to visit CAAS, the NSFC, Ministry of Agriculture, and Chinese Academy of Engineering (CAE). At these places, I discussed with officials IRRI's new strategies aimed at poverty alleviation and food security, environmental protection, rice nutrition enhancement, and the establishment of an information platform that includes the Rice Knowledge Bank.

### HIGH-LEVEL POLICY DIALOGUE ON BIOTECHNOLOGY

On 7 November in Bangkok, during the High-Level Policy Dialogue on Biotechnology for Food Security and Poverty Alleviation: Opportunities and Challenges, I provided an assessment of the CGIAR's approach to biotechnology and biosafety. Although it is unlikely that CGIAR member countries will reach consensus on every



issue related to biotechnology and biosafety, I believe it is crucial that all countries adopt science-based policies. The CGIAR centers, which have developed agreed-upon policies themselves, will work with countries to help them develop their own policies that are based on science and allow them the greatest possible access to, and benefit from, biotechnology.

### INTERNATIONAL RICE GENETICS SYMPOSIUM



More than 700 rice scientists and researchers from 20 countries—many world renowned and even more young and enthusiastic aiming in that direction—attended the 5th International Rice Genetics Symposium at the EDSA Shangri-La hotel in Mandaluyong City (photo below), 19-23 November 2005. Offi-



cially, this was the largest scientific meeting that IRRI has ever hosted in the Philippines.

During the course of the week, I made two major observations: (1) a significant segment of the record-breaking crowd is made up of young scientists attending this quinquennial

event for the first time and (2) the scope of rice research that is being conducted worldwide during the first decade of the 21st century is incredible.

The symposium provided an unprecedented opportunity to hear about the very latest in rice research and its applications to boost rice production and ensure long-term self-sufficiency in the staple crop in the Philippines and many other countries. Moreover, the symposium was an occasion for local rice researchers to get to know more about the products of rice genetics research from around the world.

Following the symposium, a large contingent of scientists visited IRRI on 24 November to see our facilities and learn more about our ongoing research.

### IRRI AVIAN FLU TASK FORCE ESTABLISHED

Avian influenza (bird flu) is widespread in Asia, but is transmitted only rarely to people. However, there is a risk that the virus causing the disease will mutate into a form that can be transmitted easily from person to person, causing a global pandemic. So, I appointed an Avian Flu Task Force, chaired by Michael Jackson, which is developing a plan to cope with a flu pandemic, should it occur. In late February 2006, a Web site ([www.irri.org/pandemic](http://www.irri.org/pandemic)) debuted with the latest information.

### INDIAN PRESIDENT'S VISIT TO IRRI FOCUSES ON FARMERS

In a historic, first-ever visit to IRRI by an Indian head of state, Indian President **Dr. A.P.J. Kalam** placed

special emphasis on using science and technology to help his country's millions of poor rice farmers.

President Kalam (left in photo below with SSD Head Mahabub Hossain and DDG-OSS William Padolina) spent more than two hours



hearing about the latest rice research and advising the Institute's scientists on a Sunday morning, 5 February 2006. We were honored and delighted by the Indian presidential visit. I noted that what was especially impressive about his short time here was how productive it was—we managed to discuss a number of very important issues in depth and to agree to move ahead in several key areas.

### UPDATE ON IRRI STAFFING

*Changes in responsibility.* On 1 February 2006, IRRI's new administrative organization took effect, which was necessitated by the recent budget cuts. IRRI management made some difficult decisions to streamline our administration. With the elimination of the position of director for administration and human resources, **Ian Wallace** departed on 31 January 2006. The remaining management team now includes the deputy director general for research (**Ren Wang**), deputy director general for

operations and support services (**William Padolina**), director for program planning and communications (**Michael Jackson**), and director for management services (**Kwame Akuffo-Akoto**). **Joseph Rickman** is currently serving as interim head of operations under the DDG-OSS. We project that these changes will result in significant savings for the Institute. We will closely monitor the effectiveness of these changes in terms of efficiencies and cost savings.

In April 2005, **Gary Jahn** was named project manager for the SDC-funded Lao-IRRI Rice Research and Training Project (LIR RTP), as well as the IRRI representative and coordinator for the Greater Mekong Subregion (Laos, Thailand, Cambodia, Vietnam, Yunnan Province of China, and Myanmar).

In May, **Vethaiya Balasubramanian**, IRRI senior scientist, agronomy, IPMO, accepted the responsibility of being IRRI's Africa Coordinator.

Effective 6 August 2005, **Patria Gonzales** was designated as acting head of the Seed Health Unit. **Grant Singleton** was named Project 6 team leader effective 1 September 2005. He replaces **Roland Buresh**, who remains leader for Program 2, *Enhancing productivity and sustainability of favorable environments*.

In January 2006, **Glenn Gregorio** moved to the WARDA substation at IITA in Ibadan, Nigeria, to begin his duties as IRRI's rice breeder for Africa. Also in January, **David Shires**, international research fellow, was named interim head of the Training

Center and **Elisa S. Panes**, senior manager, was named interim head of human resources services.

*Departures and arrivals since the last DG report.* After 26 years as a rice breeder at IRRI, Principal Scientist **Sant Singh Virmani** (photo) retired in July, spending



much of that time developing and promoting hybrid rice varieties. Dr. Virmani spent much of his career in the development and successful implementation of hybrid rice technology. He served IRRI as postdoctoral fellow, visiting scientist, plant breeder, and principal plant breeder, working under all of IRRI's directors general to date. He developed superior germplasm using the cytoplasmic male sterility system for the production of F<sub>1</sub> hybrid rice cultivars adapted to tropical growing conditions. In 2005, farmers in nine countries outside of China (Bangladesh, India, Indonesia, Myanmar, Philippines, Sri Lanka, Thailand, USA, and Vietnam) planted around 2.05 million hectares of hybrid rice. He predicted in his farewell seminar that, by 2010, around 6.1 million hectares of hybrid rice will be planted annually in these countries.

Also departing were **M. Zainul Abedin**, SSD international research fellow (2003-05); Mark Bell, head, Experiment Station (1994-99) and Agricultural Engineering Division (1997-99), and head, International Programs Management Office (1999-2005) and Training Center (2002-05); **Humnath Bhandari**, postdoctoral fellow in SSD (2002-05); **Devendra Devendra**, postdoctoral fellow in PBGB (2002-05); **Renee Lafitte**, senior scientist in CSWS (1997-2005); and **Matthias Wissuwa**, international research fellow in CSWS (2001-05). And, departing after the 2004-05 school year were ISLB teachers **Florence Bradford** and **Bruce North**. All of these colleagues moved on to positions they sought to enhance their careers, and we wish them well.

Arrivals in 2005-06 included CPS international research fellow **Adam Barclay**; PBGB postdoctoral fellow **Bertrand Collard**; CSWS project scientist **Yuichiro Furukawa**; SSD international research fellow **Hari Gurung**; PBGB molecular biologist Philippe Herve; **Robert Hijmans**, GIS specialist/head of the GIS-IP laboratory, SSD; EPPD international research fellow **Zahirul Islam**; PBGB postdoctoral fellow **Xuemei Ji**; CSWS international research fellow **Christine Kreye**; GRC international research fellow **Isaiah Mukema**; SSD postdoctoral fellow **Florencia Palis**; EPPD postdoctoral fellow **Chitra Raghavan**; PBGB international research fellow **Rakish Kumar Singh**; **Rachid Serraj**, senior scientist, crop physiology, CSWS; **Grant Singleton**, coordinator of the

Irrigated Rice Research Consortium (IRRC); Golden Rice Network shuttle scientist **Inez Slamet-Loedin**; and **Fangming Xie**, senior scientist and hybrid rice breeder, PBGB.

A complete listing of staff arrivals and departures in 2005, which includes international research and postdoctoral fellows, begins on page 101.

#### AWARDS AND HONORS

**E**nvironmental Radio Soap Opera for Rural Vietnam won a World Bank Development Marketplace Award for 2005 in Washington, D.C., on 25 May. This project was developed by **K.L. Heong**, senior scientist, entomology, EPPD, and **M.M. Escalada**, international research fellow, IPMO (pictured receiving the award from World Bank President **James D. Wolfensohn**), in collaboration with



**Nguyen Huu Huan** of the Ministry of Agriculture and Rural Development and **Vu Huu Ky Ba** of the Voice of Ho Chi Minh. Using entertainment-education principles, the project will focus on promoting "best practices" to enhance environmental sustainability in rice ecosystems. The new soap opera will build on the success of the current Rockefeller Foundation-funded "Farm



IPM

Radio.” Launched in July 2004, the soap opera *Chuyen Que Minh* (“My Homeland”) has gained popularity among rice farmers in the Mekong Delta.

During the Annual General Meeting (AGM) of the CGIAR in Marrakech, Morocco, in December 2005, a team of IRRI scientists and collaborators won the 2005 CGIAR Science Award for Outstanding Scientific Article. The paper, *Rice yields decline with higher night temperature from global warming*, was published in the 6 July 2004 issue of the *Proceedings of the National Academy of Sciences of the United States of America*. IRRI co-authors were **Shaobing Peng, John Sheehy, Rebecca C. Laza, Romeo M. Visperas, Grace S. Centeno**, and **Gurdev Khush** (now at the University of California, Davis). Co-authors from other institutions were **Jianliang Huang**, Huazhong Agricultural University (China); **Xuhua Zhong**, the Guangdong Academy of Agricultural Sciences (China); and **Ken Cassman**, University of Nebraska.

Also during the AGM, IRRI won the Center of the Year Award from the CGIAR’s Gender and Diversity Program for Policy Goal Achievements in 2005

for an outstanding series of family-friendly policies that included adoption, maternity leave, paternity leave, nursing with on-campus facilities, increased support for solo parents, and expanded compassionate leave. The award also recognized our “diversity-positive” progress in prevention of harassment and discrimination, diversity-positive recruitment and hiring, and our annual gender and diversity report to the BOT.

**Gene Hettel**, editor and head, CPS, was presented the 2005 Service Award for more than 33 years of outstanding volunteer efforts and service, Association for Communication Excellence in Agriculture, Natural Resources, and Life and Human Sciences, Texas, USA, in June.

**Hei Leung**, senior scientist, plant pathology, EPPD, was elected a Fellow of the American Association for the Advancement of Science (AAAS) in September for his contributions to science.

**William G. Padolina**, IRRI deputy director general for partnerships, was selected as one of the joint winners of the 2005 ASEAN (Association of South East Asian Nations) Science and Technology Meritorious Award (AMSA) for his “qualifications and significant contributions to the development and application of science and technology in the ASEAN regions.”

**Shaobing Peng**, senior scientist, crop physiology, CSWS, received the honor of Fellow of the Crop Science Society of America for 2005. The prestigious award was presented at the CSSA Annual Meeting held in conjunction with the American Society of

Agronomy (ASA) and Soil Science Society of America (SSSA) on 6-10 November in Salt Lake City, Utah. Dr. Peng (at left in photo below receiving award from CSSA President James



Coors) focuses mainly on rice physiology with emphasis on improving resource-use efficiency of high-yielding varieties and identifying the morphological traits and the physiological and biochemical processes that limit the advance of rice yield potential in the irrigated ecosystem.

As in every year, numerous other IRS and NRS received various awards and honors. See the complete listing beginning on page 72.

#### OTHER NOTABLE ACTIVITIES AND EVENTS SINCE THE LAST DG REPORT (APRIL 2005)

**D***utch parliamentarians visit IRRI.* Four members of the House of Commons from the Netherlands and two staff members from the Royal Netherlands Embassy visited the Institute on 7 April. They came to IRRI to have a general idea of the Institute’s research agenda and be briefed on IRRI-Netherlands collaboration and research.

*IRRI-JIRCAS workshop and project meeting.* IRRI and the Japan International Research Center for Agricultural Sciences (JIRCAS) held a workshop and meeting on the “*Development of an Integrated Rice Cultivation System under Water-saving Conditions*” at IRRI, 11-12 April. **Osamu Ito**, JIRCAS director for the Crop Production and Environment Division and former head of the Agronomy, Plant Physiology, and Agroecology Division at IRRI, gave an overview of the IRRI-Japan Project and **Takashi Kumashiro** discussed the role of the Biological Resources Division of JIRCAS in the project.

*Inception and planning meeting on managing rice landscapes ongoing.* Participants at this meeting, 18-20 April, on the IFAD-supported project on *Managing Rice Landscapes in Marginal Uplands for Household Food Security and Environmental Sustainability* formulated a 3-year plan to address food insecurity and poverty issues in the uplands.

*Letter of Agreement (LOA) between the Rural Development Administration (RDA) of Korea and IRRI.* Signed on 20 April, the LOA formally extends up to 2009 the existing collaboration between RDA and IRRI in implementing the training workshop on Rice Technology Transfer Systems (RTTS) in Asia—the first of its kind in Asia. The 5-year extension was made by virtue of the workshop’s success since 2002 based on a review of its impact by NARES alumni.

*Charles Sturt University and IRRI sign MOU.* **Ian Goulter**, vice

chancellor of Charles Sturt University (CSU), Australia, visited the Institute on 25 April to co-sign an IRRI-CSU memorandum of understanding (MOU). CSU is an innovative leader in providing an accessible, adaptable, and challenging learning environment to develop graduates and research that meet the needs of its regional, national, and international communities. Through the MOU, CSU has made IRRI an affiliate institute, which will provide the basis for future collaboration in rice research and training.

*IRRI Bangladesh Office holds field day on HYV rice.* To demonstrate that high-yielding rice varieties have great potential to increase production, the IRRI Bangladesh Office held a field day and crop-cutting ceremony on 7 May at Homna, Comilla, Bangladesh (photo below). Supported by the IFAD project and led by IRRI SSD Head **Mahabub Hossain**, the event was attended by the Honorable Minister for Agriculture **Mr. M.K. Anwar MP**, and guest speakers **Noel P. Magor**, IRRI representative for Bangladesh; **M. Mahiul Haque**, director general of BRRI; **Mukhlesur Rahman**, chairman, BADC; **Nazira Quraishi Kamal**, BRRI director for research; **Mallik Sayed Mahbub**, Upazila Nirbahi officer; and selected farmers.



*International workshop on genetic diversity.* About 70 participants from China, Vietnam, Nepal, Indonesia, and the Philippines, plus scientists from IRRI, attended a workshop on *Research Prioritization on Genetic Diversification to Sustain Rice Productivity*, 9-11 May at IRRI headquarters, to discuss theoretical principles on the use of genetic diversity for sustainable pest management and improved productivity, share information and experiences gained from research activities on genetic diversification, identify and prioritize research issues, and establish and foster collaborative research among scientists.

*Marginal lands workshop.* The first planning workshop for a project on *Revitalizing Marginal Lands: Discovery of Genes for Tolerance of Saline and Phosphorus-Deficient Soils to Enhance and Sustain Productivity* was held 17-18 May at IRRI. Thirty-five participants from Australia, Bangladesh, Indonesia, Iran, the US, the Philippines, and IRRI prepared a 2-year work plan, formulated research strategies, and defined team roles.

*Generation Challenge Program informatics workshop.* The Generation Challenge Program (GCP) Platform Development Workshop was held at IRRI, 10-20 May, focusing on Subprogram 4—Informatics: 2005 Domain Modeling and Data Quality Tasks. Hosted by the Biometrics and Bioinformatics Unit (BBU), it brought together 40 software developers to discuss, design, and begin implementation of a common crop information system for the project.

*STAR—System of Temperate and Tropical Aerobic Rice.* IRRI organized a mini-workshop and planning meeting on 3-4 November, which was a collaborative research activity of the Irrigated Rice Research Consortium (IRRC) Water-saving work group and the Challenge Program on Water and Food (CPWF). Workshop participants reviewed the results achieved in aerobic rice research, identified the main bottlenecks and priority areas for research, revisited target domain characterization of aerobic rice systems, and planned 2006 activities for CPWF-STAR and the IRRC.

*CIAT-IRRI-WARDA joint meeting.* Around 25 scientists from CIAT, IRRI, WARDA, and CIRAD/IRD met after the Rice Genetics Symposium on 25 November at IRRI to discuss possible global collaboration in the following areas: genetic resources/plant breeding, disease management, natural resource management, and capacity building. The meeting was proposed by **Lee Calvert** of CIAT and organized by **Edwin Javier** and **Ren Wang**. The group will continue to communicate and develop joint concept notes and work plans to further the collaboration.

*Inception workshop of CPWF project held in Thailand.* An inception and planning workshop of the project *Rice Landscape Management for Raising Water Productivity, Conserving Resources, and Improving Livelihoods in Upper Catchments of the Mekong and Red River Basins* was held in Chiang Mai, Thailand, 5-7 December. The project was one of the four IRRI-led projects approved by the Challenge Program for Water and Food on a

competitive basis in 2003 but received funding support only recently. The project aims to develop and validate improved options for managing rice landscapes in the uplands.

*MOU with Mozambique.* On Friday, 13 January 2006, an MOU between IRRI and the Government of the Republic of Mozambique was signed by the **Honorable Tomas F. Mandlate**, Minister of Agriculture, Maputo, Mozambique, and me. The MOU reflects scientific and technical collaboration in rice research, training, and technology development and delivery between IRRI and Mozambique.

### IR8 cited among top 50 inventions of last half century

I'm going to close on the following note. During the past year, we have pretty much been forward looking as we do strategic planning for the next 10 years. However, every so often it should be allowed to look backward to relive a past glory or two. And it is so much more gratifying when someone else reminds us of that past.

At the close of 2005, the U.S.-based magazine *Popular Mechanics* cited IRRI's IR8 (released in 1966) to be among the top 50 inventions that have "rocked the world" during the past half-century. Published in its December 2005 issue, *Popular Mechanics'* top 50 inventions include scientific and technological advances that have transformed the world in the past five decades.

The selection of the top 50 inventions was made by a panel of 25 experts who identified the innovations that have made the biggest impact on




humanity and Earth, from the hospital to outer space to the kitchen.

The *Popular Mechanics* article stated that, in 1966: "The International Rice Research Institute in the Philippines released a semi-dwarf, high-yielding indica variety that, in conjunction with high-yielding wheat, ushered in the Green Revolution. Indica rice thrived in tropical regions of Asia and South America, raising worldwide production more than 20 percent by 1970."

Other inventions cited in the article were the smoke detector, digital music, the computer mouse, the cell phone, the automated teller machine, the Sony walkman, in vitro fertilization, and DNA fingerprinting. Pretty good company!

This provides us with powerful motivation to create a vision of a future world in which rice technology again transforms people's lives—and the confidence that we can do it.

  
**Robert S. Zeigler**  
 Director General