

# Philippines and IRRI

**T**he Philippines had benefited greatly from the presence of the International Rice Research Institute (IRRI) since it was established in Los Baños, Laguna, 44 years ago. IRRI's international prestige lent prominence to the country as a vital center for collaboration in rice research, not only with leading international research institutions, but also with the national agricultural research systems (NARES) of the major rice-producing countries of the world.

Of critical importance to the Philippines, as its population continued to grow, were IRRI's advances in rice research and production technologies, which it shared as international public goods with poor farmers through the country's NARES.

The training opportunities that the institute provided to Filipino researchers and scientists, and the employment opportunities for science and non-science professionals, were also intangible contributions from IRRI to the growth and popularization of science in the Philippines. These opportunities also contributed concretely and significantly to the country's economic development.

In 2003, IRRI also hosted 85,000 visitors including more than 50,000 local Filipino school children and thousands of farmers. The children received the latest information on the importance of rice while many of the farmers were given high quality rice seed for their own use.

## Philippine expenditures

Based on 2001 figures, IRRI spent about P1.6 billion annually in the Philippines. Of this, P300 million went to the salaries of nationally recruited staff working in Los Baños. Another P50 million paid for other staff such as kabesilya, janitors and security guards. Some P185 million were spent on equipment, goods and services, and other items in the Philippines, mainly but not only in Los Baños and surrounding Laguna Province. Overall, the Institute estimated it spent about 33 per cent of its budget in Laguna. That was P535 million, or about P1.5 million per day.

In 2003, IRRI's total budget was P1.5 billion (US\$27.12 million) of which about 47 per cent was spent in the Philippines. IRRI and PhilRice The Institute helped establish the Philippine Rice Research Institute (PhilRice) in 1985. IRRI then worked to further enhance PhilRice's capabilities in varietal improvement, planting and fertilizer management, rice farming systems, farm mechanization and post-harvest engineering, technology sharing, as well as social science and policy development.

The institutes collaborated from 1995 to 2003 on more than 50 research projects in the rice ecosystems of the country and continued to work closely together. They were also collaborating on a study on rice supply and demand analysis for the Philippines aimed at developing a methodology that takes into account biophysical and socioeconomic factors in analyzing the balance between rice supply and demand at national and sub-national levels.

IRRI, from 1966 to 2000, released 69 rice varieties in the Philippines—44 for irrigated,

seven for rainfed, four for upland, five for saline, and five for low temperature environments, many of which were further developed and used by PhilRice.

## **New rice research plan**

IRRI, PhilRice, and UP Los Baños (UPLB) had an existing work plan agreement on priority rice research activities starting from 2000. The work plan focused on key research priorities such as biotechnology, intellectual property rights, transgenic rice, and the physiology and high yield potential of new rice varieties. It looked at integrated pest management, technology packaging and rice consortium activities, as well as human resource development.

Other research priorities included the evaluation of socioeconomic trends in the rice industry, and the competitiveness as well as the strengthening of three important consortia: the Rainfed Lowland Rice Research Consortium (RLRRC); the Upland Rice Research Consortium (URRC); and, the Irrigated Rice Research Consortium (IRRC).

The priorities of these three research consortia - the RLRRC, the URRC and the IRRC - were all incorporated into the National Research Development and Extension Program of the Philippine government.

These activities had enormous implications and impact on the government's "growth with social equity" vision of reducing poverty from 32.1 percent in 1997 to 28 percent by 2004 as underlined in the Medium-Term Philippine Development Plan, otherwise known as *Angat Pinoy 2004*, according to Senator Edgardo J. Angara, a former member of the IRRI Board of Trustees and Secretary of the Department of Agriculture.

## **Trade liberalization**

Trends towards globalization were sure to have a profound impact on the lives of poor Filipino rice farmers and consumers. Trade liberalization and the power and influence of international markets were likely to affect the local rice industry over the first decade of the 21<sup>st</sup> Century.

Towards this end, the institute was assisting Philippine policy makers with detailed, up-to-date understanding of the effects of trade liberalization on rice self-sufficiency, food security, and the welfare of rice farmers and consumers on a regional basis under the project.

## **University collaborations**

Leading Filipino universities and organizations also benefited from IRRI's expertise in rice research through specific project collaborations. UPLB and IRRI (with PhilRice), for example, were collaborating on the development of hybrid rice, in basic seed production, and in a national rice cooperative testing project to determine yield potential, range of adaptability, and field reactions to major insect pests and diseases of promising rice selections. They were also collaborating on the molecular mapping and introgression of genes for tolerance to abiotic stresses from wild species into rice.

The Philippines Rice Post-Production Consortium (PRPC) was another collaborative program that involved the Bureau of Post-Harvest Research and Extension of the Department of Agriculture (DA), PhilRice, National Food Authority, UPLB, and IRRI.

Among other activities were dialogues on grain quality issues with farmer-members of cooperatives engaged in the processing and trading of rice, assessing problems associated with using grain dryers provided by the DA in Central Luzon and Bicol region, designing and developing a batch recirculating dryer in cooperation with the private sector represented by the Metalworking Industry Association of the Philippines, and a nationwide survey and laboratory assessment of the quality of milled rice at the retail level as set by Philippine Trade Standards. UPLB, PhilRice, and the Mariano Marcos State University also collaborated with IRRI from 1997 to 2000 on a systems research network for ecoregional land use planning in tropical Asia.

## **Filipinos at IRRI**

IRRI takes special pride in its role developing local human resources. As of November 2004, there were 720 Filipinos working at IRRI a number of them at the managerial or researcher level and including five internationally recruited Filipino scientists.

Since 1960, some of the country's leading scientists had occupied top positions and played key roles in IRRI's work. Some of them had gained worldwide prominence through their scientific contributions and in promoting international cooperation in rice research. These included national scientists like Dr. Benito S. Vergara, plant physiologist and IRRI's former director for administration, Dr. Bienvenido Juliano, a chemist (1961-1993), and social scientist Dr. Gelia Castillo.

Prominent government leaders and academics had also served on the IRRI Board of Trustees. They included former UP presidents Senator Edgardo J. Angara (1981-1987) Dr. Emil Q. Javier (1993-1999), Dr. Onofre D. Corpuz (1975-1979), and Dr. Salvador P. Lopez (1969-1974) as well as the Secretary of Agriculture Arthur Yap.

At the time of writing, the highest-ranking Filipino official at IRRI was Dr. William G. Padolina, formerly DOST Secretary, who became IRRI's Deputy Director General for Partnerships.

## **Filipino scholars**

Providing scientific training was another key element in IRRI's work. From 1960 to 2001, the number of Filipino scholars who studied at IRRI were as follows: Master of Science 146, Ph D 76, nondegree 95, and trainees 851. IRRI had trained more people from the Philippines than from any other country.

## **Technical assistance**

IRRI also responded to requests for technical assistance from provincial governments and nongovernment organizations. For example, the tungro, rat and adverse soil problems in Iloilo and the subsequent request for IRRI technical assistance by the provincial governor of Iloilo led to the development and implementation of a participatory ecological research project called Dapitay sa Kaumhan (Holding on Together for the Farm) or DAPITSAKA which was officially launched as a provincial project in Pototan on 21 June 2000.

The project aimed to develop and implement a model system of technical content delivery in response to observed farmers' needs. The Iloilo provincial government, PhilRice, DA, Department of Science and Technology, Process Foundation, and locally based government and private institutions implemented the project.

IRRI continued to provide technical assistance for local problems requiring policy advice and/or institutional intervention, and in research problems with options for field validation and expansion.

The Infanta, Quezon-based nongovernment organization Infanta Integrated Community Development Assistance, Inc. (ICDAI) also sought IRRI technical assistance in improving seed health for sustainable pest and crop management in the area.

In Tuguegarao, Cagayan, scientists from IRRI's Social Sciences Division conducted a workshop on valuing and promoting indigenous rice varieties in the Cagayan Valley, while work in Mindanao in 2003 also led to local farmers being provided with traditional varieties from the International Rice Genebank at IRRI.

## **A good local citizen**

IRRI worked hard at being a good local citizen in the Laguna community. Its non-science, income generating projects in adjoining barangays in Los Baños had benefited scores of poor

families and dependents.

The institute also supported the printing of 10,000 copies of a leaflet on solid waste management for distribution to Los Baños residents. IRRI also donated computers to many local government schools, and maintained dialogue and consultation with the mayors of the two municipalities on the Neighborhood Emergency Services Team (NEST) training project.

The institute also supported the Los Baños Science Community (LBSC), a 21-member group under the umbrella of UPLB, whose main thrust was to accelerate rural development through the generation, verification, packaging, and dissemination of technologies and information to promote agriculture and natural resources development.

IRRI: [www.irri.org](http://www.irri.org)

IRRI Library: <http://ricelib.irri.cgiar.org>

Riceweb: [www.riceweb.org](http://www.riceweb.org)

Rice Knowledge Bank: [www.knowledgebank.irri.org](http://www.knowledgebank.irri.org)

Media information: [www.irri.org/vis](http://www.irri.org/vis)

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