



The Asian Development Bank (ADB) has supported the International Rice Research Institute (IRRI) since 1975 and has since funded 33 projects, 32 of which have been completed. The 40-year partnership between ADB and IRRI involves more than USD 26 million in grants for research, capacity building, as well as infrastructure development.

Key achievements of ADB-supported work

Research.

Pre- and postharvest. As a result of work to address pre- and postharvest challenges, rice availability and food security improved in project sites in Cambodia, the Philippines, and Vietnam, and other participating developing member countries (DMCs). Farmers who used combine harvesting cut costs by about half (USD 80–250

per hectare. Under a program phase on outscaling postharvest technologies, the *FAO-IRRI Joint Conference* was held, during which were presented action plans on adoption of ecological engineering approaches to restore biodiversity in Asia.

Water-saving. In South Asia, income increased for farmers facing increased costs and less water as a result of development and dissemination of water-saving technologies.

Disease control. Fungal blast disease was successfully controlled in China's Yunnan Province through interplanting method, which increased farmers' yields from glutinous rice by an average of 2 metric tons per hectare, an outcome cited by *The New York Times* in 2000 as a "stunning new result" from one of "one of the largest experiments ever."

Hybrid rice. The technology was developed and dissemination in

ADB is supporting an ongoing project entitled, *Development and Dissemination of Climate-Resilient Rice Varieties for Water-Short Areas of South Asia and Southeast Asia*.

The project aims to develop better rice varieties for aerobic and alternate wetting and drying conditions following conventional and marker-assisted breeding, using traits, donors, and QTLs identified at IRRI. The research program consists of two main components:

- Development and dissemination of high-yielding varieties suitable for water-short climates.
- Development and dissemination of site-specific crop management packages for aerobic cultivation in water-short areas.

irrigated environments of selected Asian countries, boosting the seed industry and rural employment.

Leveraging knowledge. Through the Linking Extension and Research Needs through Information Technology (LEARN IT), farmer intermediaries in Cambodia, Thailand, and Vietnam effectively communicated recommendations from the *Rice Knowledge Bank* in the local language. In less favorable rainfed areas in Asia, work to integrate and mobilize rice information for farm household use helped improve and stabilize crop productivity.

Reduced insecticide use.

Insecticide use against rice planthopper went down by about 50% through the use of ecological engineering to build up ecosystem services and resilience. Not only does this lessen pressure on the environment and the ecosystem,

but also lessens health risks to farmers and wildlife. Using less insecticide and thus saving on costs, Vietnamese farmers increased their income by USD 45–145 per hectare per season.

In addition, strategic research found that there had been increased investment by both public and private sectors in food and nutrition security in participating DMCs in Asia, at all stages of the agriculture and food supply chains.

Training and capacity building.

The ADB Scholarship Program that IRRI administers started in 1988 and now has more than 60 alumni from 11 DMCs. Young scientists from DMCs were involved in several ADB-supported projects as

postdoctoral fellows or research scholars. In 1993, the Asian Rice Biotechnology Network (ARBN) was established that successfully built the capacity of national agricultural research and extension systems in accelerating varietal development for pest- and disease-resistance. Other areas of investment in capacity building were on water-saving technologies and use of ICTs for use of rice farmers.

Infrastructure and equipment.

The very first grant in 1975 was for the purchase of equipment for the IRRI Training Center. In 1977, another grant established the Rice Genetic Resources Laboratory, which helped expand the seed storage capacity of the IRRI genebank by 30% and set up its short- and long-term cold storage rooms.

International Rice Research Institute

IRRI aims to improve livelihoods and nutrition, abolishing poverty, hunger, and malnutrition among those who depend on rice-based agri-food systems. In doing so, IRRI's work protects the health of rice farmers and consumers, and the environmental sustainability of rice farming in a world challenged by climate change. IRRI's work promotes the empowerment of women and supports opportunities for youth in an equitable agri-food system.

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