Myanmar and IRRI

Myanmar and IRRI have enjoyed a long and fruitful partnership that started in 1965, when a trade delegation from Myanmar visited IRRI headquarters in Los Baños, Philippines. A few weeks later, the Myanmar government requested samples of rice seed from IRRI.

The visit of the Myanmar President U Thein Sein, Minister for Agriculture and Irrigation U Myint Hlaing, and other members of the president's cabinet to IRRI headquarters in December 2013 gave a strong indication of the country's serious interest in strengthening the Myanmar-IRRI partnership in rice research and development.

Myanmar was the world's top exporter of rice in the 1950s, and is now trying to improve rice production, productivity, and sustainability (economic, social, and environmental). The Myanmar government has consistently accorded the highest priority on the rice sector because of its crucial role in food security, as well as its social and political importance to the country. 70% of the rural population of Myanmar engages in rice farming for their livelihood.

Key achievements

Rice sector strategy - The Myanmar Rice Sector Development Strategy (MRSDS) 2015-2020, launched in May 2015, guides the Ministry of Agriculture, Livestock and Irrigation, other ministries, and development partners on policies and action for food security and economic growth based on the development of the rice sector. IRRI supported the Myanmar government to develop the MRSDS.

Climate-smart agriculture strategy - The CGIAR Research Program on Climate Change, Agriculture, and Food Security (CCAFS) and IRRI facilitated and supported the first national consultation meeting on "Climate-Smart Agriculture (CSA) in Myanmar" in 2013. This resulted in the formulation of the Myanmar CSA strategy, (2015-2030) which describes the technical, policy, and investment conditions needed for sustainable agricultural development, as well as food security and nutrition.

Improved rice varieties - To date, 74 IRRI improved rice varieties have been developed, released and promoted in Myanmar. These IRRI improved varieties are being used by approximately 40-50% of all smallholder rice farmers in Myanmar.

Improved crop management - IRRI develops best crop management practices with various partners in Myanmar to help farmers with improved land preparation; new planting and transplanting technologies; and a range of best crop management practices. Since 2006, 33 areas have reported using alternate wetting and drying (AWD), a technology that helps reduce the use of irrigation water by up to 30%.

Postharvest technologies - IRRI has worked on the development of mechanized harvesting; improved threshing, drying, and storage; and improved crop residue utilization, especially for rice straw and husk. IRRI partnerships with the private sector have resulted in the installation of more than 300 improved rice dryers across Myanmar. About 35,000 smallholder rice farmers benefit from these dryers, which result in improved grain quality for higher market prices.

Capacity building - IRRI has provided training to more than 500 agricultural scientists and extension workers from Myanmar, including many women. Many alumni of IRRI's training programs now hold key positions in Myanmar's agricultural research and extension agencies.

Current collaborative projects

Closing Rice Yield Gaps with Reduced Environmental Footprint (CORIGAP) (2017-2020, with possible extension)
Funded by the Swiss Development Cooperation (SDC), this project aims to co-develop science-based tools to close rice yield gaps whilst protecting the environment, leading to improved production systems that strengthen the livelihoods of smallholder rice farmers and maintain food security in Asia. Field activities focus on demonstrating improved land preparation, the benefits of using quality seeds, and the use of direct seeding via the drum seeder and mechanical transplanter. It also involves community action for improved rodent management, site-specific nutrient management, weed management, and improved post-harvest practices, including sustainable rice straw management technologies and business models.

Co-designing Myanmar's Pathways for Agroecological transition towards Sustainable Food Systems (CoMPASS) (2019-2022)
This project is also funded by SDC and is linked to the CORIGAP project. The main goal of the project is to co-design pathways for agroecological transition towards sustainable food systems by assessing production systems interventions, institutional policies, and incentives that can be promoted to create synergies between livelihoods and the environment. The project uses an integrated approach across the different domains of sustainability, specifically to assess the typologies of food production systems that contribute to a healthy planet and well-nourished people, and to design comprehensive matrices of institutional environments that support transitions towards an agroecological food production system.

Agriculture Development Support Project (ADSP) (2017-2020)
This project is part of a World Bank loan to the Government of Myanmar. It focuses on: (1) irrigation, drainage management, and land Improvement; and (2) farm advisory and technical services. The role of IRRI is focused on farm advisory and technical services, specifically relating to general technical assistance and institutionalization, seed management, cropping system design, soil management, pest management, farm mechanization and post-harvest, and extension services.

Development of Rice-Fish Systems in the Ayeyarwady Delta Project (2017-2021)
This project is funded by the Australian Centre for International Agricultural Research (ACIAR). The aim of the project is to improve productivity and profitability of rice-fish production systems, with a focus on favorable agroecological zones in the Ayeyarwady delta. It will benefit small-scale rice farming households and fisherfolk through diversification of production in rice-based farming systems and landscapes, and enhance resilience of rice-based farming systems. It aims to achieve increased farmer incomes, improved food and nutrition security, and enhanced gender equity.

Rice Genetic Solutions for Climate Resilience and Value Addition (RiceNet) (2020 onwards)
This is a new regional network for sharing and evaluating advanced IRRI-developed rice breeding lines, supported by ASEAN Member States and Plus Three dialogue partners (China, Japan, Republic of Korea). This collaborative partnership is underpinned by the Rice Genetic Solutions for Climate Resilience and Value Addition program. RiceNet will accelerate farmers' access to high-value varieties under climate change environmental conditions and drive long-term increases in rice productivity and incomes. It will address the need to secure increased rice production in the face of climate change challenges, land degradation and declining availability, and continued population growth and rapid urbanization. It is projected to generate economic benefits of at least USD 0.5 billion from variety releases alone across the ASEAN region.

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IRRI 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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