

# China and IRRI

## Fostering breakthroughs through partnership

**T**he over 40 years of partnership between China and the International Rice Research Institute (IRRI) paved way to breakthroughs in rice research and the boom of the country's rice economy.

Through this partnership, China became the first country to successfully produce hybrid rice for temperate-climate agriculture. To date, China is recognized as a world leader in hybrid rice and the world's largest producer of rice, with 207 million of tons of rice produced in 2014. China's average yield is around 6.5 tons per hectare, considered among the highest production rate in Asia.

China and IRRI continues its collaboration to further develop and cultivate research innovations and technologies that will benefit not just the country's rice economy but as well as its neighbors across the Asian region.

## OUR KEY ACHIEVEMENTS

**Enhancing biodiversity for pest control.** The Rice Planthopper Project under the 13th Regional Technical Assistance (RETA) program works with partners in developing strategies for the sustainable prevention of planthopper outbreaks in Asia by protecting ecosystem services using ecological engineering tools.

**Improved rice varieties.** Developing drought-tolerant rice varieties to ensure food security and in rural Asia.





## CURRENT RESEARCH AND DEVELOPMENT PROJECTS

- Meeting China's food demands through **improved rice varieties** – development of Green Super Rice, varieties that can withstand harsh conditions associated with climate change; establishment of research and information sharing consortium to increase yield potential in temperate areas.
- **Discovering new genes** that could help improve yield, resistance to diseases, tolerance to abiotic stresses and adaptation to environmental constraints, such as climate change.
- **Development of supercharging rice (C4 rice)** to potentially increase yield by 50%.
- **Addressing climate change** by studying efficient ways to manage changes in rice yield and nitrogen-and water use to increase yield and productivity; exploring rice varieties with higher yield that can withstand higher temperatures and high carbon dioxide.
- **Improved crop management** to reduce chemical fertilizer and pesticide use while increasing yields by 20%; utilizing alternate wetting and drying (AWD) technology to reduce water consumption and greenhouse gas emission.
- **Analyzing rice research impact** – IRRI is investigating the impact of its contributions to rice genetic improvement in China to help evaluate its current and future research initiatives.

## CAPACITY BUILDING

China focuses on working with Chinese rice researchers to improve the innovative capacity of the country's research system. Through the Ministry of Agriculture-led Improvement and National Modern Technology System for the Rice Industry (INMTSRI), mechanisms are set in place to bridge the gap between the rice research and the rice industry including the integration of funds.

IRRI works with the China National Rice Research Institute to provide and strengthen the capacity of rice research industry experts. This includes training programs and site exposures for scientists, plant breeders, researchers and scholars.

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### 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.