

Toward a resilient rice agrifood sector



The problem

- Yield gap compared with the global best in class
- Need for sustainable intensification of rice-based production systems to meet future demand
- Rural to urban migration and resulting increase in cost of agricultural labour
- Feminization of agriculture and limited access of women farmers to technologies, productive resources and services
- Urbanization – increase in slums dwellers and middle-class consumers
- Increasing importance of non-farm incomes
- Increasing importance of the private sector in rice value chain with market liberalization
- Poor nutrition of rice consumers
- Resilience of rice-based systems to climate change and water stress (droughts and floods)
- Increasing number of people of working age

The solution

With rising populations, increasing economic inequality, land degradation, climate change impacts, and water stress, achieving the UN Sustainable Development Goals in South Asia will need concerted and sustained cooperation and effort in the region.

To answer this challenge, IRRI aims to deliver its rice research expertise and products through:

1. Stress-tolerant rice varieties, best practices in farm management, training in mechanization, and crop insurance;
2. Strong partnerships with NARES, investors, and the private sector in the region;
3. Delivery partners to ensure IRRI products and technologies are translated into meaningful outcomes such as women empowerment and opportunities for youth; and
4. Using its “honest broker” role to facilitate south-south collaboration.



IRRI's role

ISARC will act as the hub of the Indo-Gangetic Plain Resilience Program, in which we draw together the key Eastern India rice states with Nepal and Bangladesh with a focus on

- Providing stress tolerant rice varieties
- Improved production systems within a rice-based agrifood system context
- Adding value to high quality but low productivity indigenous rice varieties
- Support for increased mechanization
- Addressing issues of women's role in agriculture and youth employment
- Promote financial instruments such as crop insurance that build resilience
- Interlinked issues of water use and climate change



IRRI South Asia Regional Center (ISARC) Research Agenda

ISARC will serve as the South-South collaboration catalyst, not just for the SAARC region but also for SAARC-Africa. It will support efforts in increasing farmer income by increasing grain quality and making rice farming more attractive to youth.

A center of excellence on rice value addition

- State-of-the-art grain quality
- Improving nutritional quality, biofortification, understanding heavy metal contamination, improving grain quality, postharvest loss and processing, improving rice value chains, and understanding and meeting market demand

Broader programs of capacity development

- Short courses on rice based agri-food systems
- Scholars and internships
- IRRI Education products delivered to the private sector, NARES partners in India, international students from SAARC and Sub-Saharan Africa, and state and national government officials

Broader programs of research and development

- Center for phenotyping excellence
- Agronomy research on systems intensification and optimization
- Developing and delivering climate-resilient and stress-tolerant rice varieties
- Intensifying cereal cropping systems to invigorate economic activities across many regions

CONTACT

Dr Nafees Meah

IRRI Representative - South Asia
1st Floor, CG Block, NASC Complex
DPS Marg, Pusa, New Delhi, 110021
Tel: +91 11 6676 3000
www.irri.org



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.