Kenya and IRRI

Intensifying agricultural productivity through research and development

Challenges in Kenya

- Labor scarcity due to migration of youth to urban centers
- High costs of farm inputs and machinery
- Poor agricultural infrastructures especially in lowland rainfed ecologies
- Farmers and extension agents' lack of technical knowhow on modern rice crop management
- Farmers' poor access to credit and land ownership
- Prevalence of biotic (pests and diseases) and abiotic stresses (salinity and drought)
- Low mechanization and value addition technologies

Since its introduction in 1907 in Kenya, rice has become the third most important cereal crop after maize and wheat. Due to the progressive change in eating habits of Kenyans, particularly in more urban areas, the annual consumption of rice is increasing at a rate of 12% in the country. Moreover, the national rice consumption is estimated at 538,000 metric tons compared to an annual production of 112,800. With a projected population growth rate of 2.7% per year, the estimated annual national need can reach up to 570,490 tons by 2030.

IRRI joins Kenya in its efforts to improve farmers' income and consumers' food and nutrition security through sustainable rice production, marketing, and utilization. In 2012, IRRI started its research activities in Kenya after signing an agreement with KARI, now the Kenya Agricultural Livestock and Research Organisation (KALRO). These activities build on the initiatives of the IRRI Eastern and Southern Africa regional program which started in 2006. Furthermore, to intensify research and development of rice agri-food systems and address arising issues brought by climate change and dwindling resources, IRRI established its regional office for Africa in Nairobi.





Fast Facts

- Kenya has a potential of about 540,000 ha irrigable and 1 million ha rainfed for rice production.
- Rice is mainly produced by about 300,000 small-scale farmers in Central, Western, Coast, and Nyanza provinces.
- According to FAO, the average rice calorie intake in the diet of Kenyans is increasing, with 5.53% per day in 2013.

KEY ACHIEVEMENTS

Development of improved rice varieties

Through programs like the Stress Tolerant Rice for Africa and South Asia (STRASA), and with national and international partners like the Bill and Melinda Gates Foundation, IRRI develops new breeding products for lowland rice ecologies and their major market segments, including good grain quality and tolerance to major biotic and abiotic stresses. Furthermore, through advanced rice research, IRRI characterizes important rice pathogens and their interaction with rice lines in Kenya in order provide farmers with disease management advice.

Strengthening stakeholders

Kenya and IRRI support the establishment and strengthening of new and existing multi-stakeholder platforms to enhance the dissemination and adoption of improved rice varieties. In 2018, the Africa Rice Center (AfricaRice) and IRRI agree to a step-change in partnership to harness synergies and accelerate their impact in Africa on rice-based food systems. The partnership is expected to boost awareness and demand for improved rice varieties among rice farmers and other actors in the value chain, especially in irrigated and rainfed lowland production systems.

Improving the capacity of the rice sector

In collaboration with the Extension Capacity Development for Rice Food Security in Africa (a JICA-IRRI-PhilRice Initiative), IRRI conducts on-farm participatory evaluation of new varieties and available agronomic management practices on productivity and profitability of rice in irrigated and rainfed ecosystems. Through degree and nondegree training programs, national research extension staff, farmers, and university researchers gain knowledge of best practices and skills to operate related technologies.

Collaboration with government institutions and academia

IRRI collaborates with Ministry of Agriculture Livestock Fisheries and Irrigation, Kenya Agricultural Livestock and Research Organization (KALRO), National Irrigation Board (NIB), University of Nairobi (UoN), and University of Eldoret (UoE) to implement in-country rice research and development initiatives.

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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.