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Stress Tolerant Rice for Food and Nutritional Security in Eastern India

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With a present population of about 1.3 billion, India is likely to be the most populous country on this planet by 2030. It currently accounts for more than 17% of the global population with 500 million poor or 41.6% living on less than $1.25 a day. Eastern India serves the home for major portion of these unprivileged people where they depend on rice economically, socially and environmentally. The need is to enhance rice productivity by exploiting untapped potential of eastern India to ensure food and nutritional security of the region in a sustainable manner. Eastern India and its adjacent areas occupy one of the largest stress-prone areas in the world. Drought, submergence and the sequential events (drought followed by submergence and vice-versa) are the major constraints for rice production in these areas. The development, dissemination and adoption of stress (drought and submergence) tolerant rice varieties can serve as the most coherent approach that can help the communities to become more resilient to existing and growing stress risks. International Rice Research Institute (IRRI) through STRASA (Salt Tolerant Rice for Africa and South Asia) project along with national research partners has developed stress tolerant rice varieties (STRVs) possessing high yield along with desirable grain quality. STRASA has ensured the intentional and strategic partnerships among different stake holders for enhancing the dissemination of these varieties to farmers in appropriate stress prone ecologies. These involve public and private sectors, community groups, multilateral agencies, philanthropic foundations as well as collaborations among nations. The varieties like Swarna-Sub1 and BINA Dhan11 (flooding tolerant), SahbhagiDhan, DRR 42 and DRR 44 (drought tolerant) have been released and have huge potential under rain-fed agriculture. Farmers reported relatively more grain yield, better quality and yield of straw, high tiller number, low irrigation requirement, less incidence of diseases and pests, and good grain quality of STRVs. Thus, STRVs can serve as the most promising and deliverable technology for ensuring food and nutritional security in the communities dependent on rainfed rice.

Biography:

Dr. Manzoor H. Dar is a development specialist in agricultural research at IRRI-India with many years of experience working in South Asia. He has been actively involved in seed upscaling and dissemination of stress-tolerant rice varieties through the development of strategic partnerships in South Asia. He is well recognized for his extensive networking with national partners in India, Nepal, and Bangladesh. With the M.Sc. and Ph.D. in Plant Protection from Aligarh Muslim University (AMU), Dr. Manzoor is involved in leading innovative research and development activities to facilitate the delivery of technologies to end users and to accelerate the impact of stress-tolerant rice varieties in South Asia.