

Insights from Analytical Study of Breeder Seed Indents on Rice Production in India-Varietal Dynamics and Diversity

Nidhi Rawat*

Post-doctoral Research Associate at GCREC, University of Florida, U.S.A

Editorial

Using breeder seed indents data from selected years, the current thesis attempts to analyse rice varietal dynamics and diversity in India. Through analysing the literature, an effort has also been made to establish fundamental causes of varietal dynamics and interventions to increase varietal turnover. There has been an improvement in rice varietal diversity in recent years at the All India level. However, the fact that the top 10 varieties have a higher weighted average age suggests that older varieties are replacing varieties. In the case of Basmati rice varieties, there are also varietal differences. The number of varieties has increased over time, although the share of the top three varieties has decreased. Indentation for Seed Association of India's share was 20 and 31 percent, respectively. Rice varietal dynamics are influenced by a variety of influences. As a result, a multi-pronged strategy is needed to promote acceptance of improved rice varieties with a shorter adoption lag [1]. Targeted extension strategies focused on the proportion of farmers with various forms of learning habits, nudging varietal adoption behaviour by exploiting seed subsidy and competitiveness policies, promoting private sector interest in research and varietal commercialization, and enabling marketing of rice varieties of various durations by synchronising marketing cycles with harvesting periods. Varietal dynamics may be influenced in the future by various processes for indenting for varieties and price fixation for breeder seed depending on whether a variety is covered or not under the PPV&FR Act [2]. According to the findings of this report, rice varietal diversity in India has increased in recent years in terms of metrics. I the amount of varieties for which breeder seed indents is obtained (ii) the number of varieties contributing 75% of total indented quantity (iii) the lower

share of the top 10 varieties in total breeder seed indents. However, the top 10 varieties have a higher weighted average age. They proposed conducting pilot surveys to determine the proportion of farmers with various learning styles in a given area and to prepare potential strategies depending on the design of technology. Multiple influences, such as new variety characteristics, demand opportunities for various rice varieties, farmer preferences and learning behaviour, and divergent contextual factors (such as hydrology, soil suitability, and so on) [3], are said to influence rice varietal dynamics, according to the literature. Reduced breeding period time, tailored extension strategies focused on the share of farmers with different styles of learning habits, nudging varietal adoption behaviour by seed subsidy and competitiveness policies, promoting private sector involvement in research and varietal commercialization, and enabling marketing of rice varieties of various durations through synchronizing marketing with crop harvesting period are some of the suggested components in the multi-pronged strategy. With certain drawbacks, the current analysis is focused solely on macro level breeder seed indents. As a result, further disaggregated research in the future will be able to provide more information on varietal dynamics in various rice habitats and related causes.

References

1. Atlin GN (2007) Rapid breeding and varietal replacement are critical to adaptation of cropping systems in the developing world to climate change. *Glob Food Sec* 12: 31-37.
2. Dabi T, Khannan VK (2018) Effect of climate change on rice. *Agrotechnology* 7: 518-527.
3. Duncan JMA (2017) Observing adaptive capacity in Indian rice production systems. *AIMS Agri Food* 2: 165-182.

*Corresponding author: Nidhi Rawat, Post-doctoral Research Associate at GCREC, University of Florida, U.S.A; Email: rawatniflorida@gmail.com

Received December 24, 2020; Accepted January 29, 2021; Published February 10, 2021

Citation: Rawat N (2021) Insights from Analytical Study of Breeder Seed Indents on Rice Production in India-Varietal Dynamics and Diversity. *J Rice Res* 9: 238.

Copyright: © 2021 Rawat N. This is an open-access article distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.