Narrowing the yield gaps for profitable rice production

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An analysis of yield gaps in rice will help in understanding the production status and constraints in rice production. It also suggests strategies to enhance productivity at micro level and production at macro level. With an objective to estimate the magnitude of yield gaps and the constraints in rice production, a study was conducted in four districts viz., West Godavari, Guntur, Kurnool and Mahboobnagar of Andhra Pradesh in 2012. Yield gap I which is the difference between the potential yield (experimental station yield) and the potential farm yield (demonstration yield) is 5%. Yield gap II which is the difference between the potential farm yield (demonstration yield) and actual yield (average yield realized by the sample farmers) is 7%. The index of yield gap was found to be 12%.

The major constraints in rice production in each of the sample districts were quantified by using the Garret's ranking technique. The results revealed that lack of remunerative price, problems of tenancy, shortage of labor during peak operation periods, non-release of canal water in time were the major constraints in West Godavari district with a Garret's score of 74, 66, 61 and 58 respectively. In case of Guntur non-availability of fertilizers in time, lack of remunerative price and pests and disease incidence leading to yield losses were the major constraints as opined by the sample farmers. The sample farmers of Kurnool opined that the release of canal water and the availability of fertilizers in general and phosphorous in particular were not in time. The major constraints in realizing the potential yield as opined by the sample farmers in Mahboobnagar were shortage of labour, lack of remunerative price and incidence of pests and diseases resulting in reduced returns from paddy cultivation.

Biography

B. Nirmala is working as a Scientist (Agricultural Economics) at Directorate of Rice Research (ICAR), Hyderabad, India. She has completed her Ph.D. (Agricultural Economics) from Acharya N. G. Ranga Agricultural University, Hyderabad, India. She is trained in 'Food Value Chain Analysis' by International Rice Research Institute. She has been awarded ICAR Junior Research Fellowship to pursue M.Sc. (Agriculture) and also was awarded 'Young Scientist Award' in 2009 by Green Cross Society, Agra, India. She has published 13 research papers in peer reviewed research journals, 2 international book chapters, 2 national book chapters and 9 popular articles. Her areas of research include impact studies of agricultural technologies, production economics and international trade in agriculture.