

A novel approach for measurement of rice yield gaps: A case study of Bihar

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The yield gaps in irrigated rice ecologies of Muzaffarpur, Samastipur, and Begusarai districts of Bihar were studied during the year 2013. The data on economics of rice cultivation and yield realized were collected from 120 rice farmers. Various indices of yield gaps were calculated. Yield gap I which is the difference between the potential yield (experimental station yield) and the potential farm yield (demonstration yield) was 12 percent. Yield gap II which is the difference between the potential farmers) is 18 percent. In addition to Yield Gap I and II, a new index of yield gap viz., Yield gap III, which is the difference between the best yield obtained on the farmer's field and the average yield of the locality was worked out and has been found to be 32 percent. Index of realized potential farm yield which is defined as the ratio of actual yield to potential yield to potential farm yield was found to be 82.4 percent in the study area. Since the index of yield gap was found to be 32 percent, there is ample scope for increasing rice production by bridging the yield gap. Indeed, closing the yield gap of 32 percent alone can increase rice production substantially.

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