

# The Impact of Hybrid Varieties on the Productivity of Rice Cultivation: The Case of Sindh, Pakistan

SAQIB SHAKEEL ABBASI

Agriculture is a very important sector for Pakistan and crucial for poverty reduction and employment generation and hence the growth of this sector is indispensable. The use of hybrid seeds leading to increase yield of crops and farmers income has been widely discussed in the literature. Through this study an effort has been made to identify factors that impact in obtaining high crop yield by using the hybrid varieties. This study focuses on the use of hybrid varieties in the rice crop, presents a comparison in yield with the traditional open pollinated varieties. The plot level information from Sindh province of Pakistan was used to conduct this study. The data was collected through survey funded by IRRI during the year 2016; and propensity score matching technique was used to estimate the results of the study by using plot level variation between hybrid varieties and open pollinated varieties. The results of the study showed significant improvement of rice yield with the adoption of hybrid rice varieties in the study area. This study highlights that the farmers have achieved higher average yield of around 500kg as compared to open pollinated varieties. Besides the crop yield, overall income and profit of farmers have also increased by using hybrid seed in the Sindh province. The study illustrates different interesting patterns relating to different characteristics of the household cultivating rice crops, different plot level characteristics and their comparison with hybrid and traditional varieties.