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**WORKING PAPER 205/2021**

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**CROP DIVERSITY AND RESILIENCE TO DROUGHTS:  
EVIDENCE FROM INDIAN AGRICULTURE**

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**February 2021**

# **Crop Diversity and Resilience to Droughts: Evidence from Indian Agriculture**

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## **Abstract**

*Agricultural intensification and technological specialisation have led to the prevalence of mono-culture in India. Diversity within crop species has been gradually declining since the advent of Green Revolution in the 1960s. With increasingly frequent weather shocks, agricultural systems face the risk of yield and income losses. A quantitative assessment of district level agricultural data for the period 1966-2015 is used to understand whether crop diversification can cushion yield and income losses for farmers during droughts. The results indicate that diversification enhanced resilience during a rainfall deficit period in the Green Revolution period. However, in the post-Green Revolution period, increased specialization mitigated the adverse effects of rainfall deficit. When simultaneous occurrence of rainfall deficit and high temperature is considered as an alternative characterization of drought, crop diversity did not provide any insulation against such weather extremes. In the absence of any weather extremes, monoculture is found to be more lucrative owing to both supply and demand side factors like improved inputs, irrigation and infrastructure facilities, government's support prices and pattern of consumption demand. Spatial trends in crop diversification also revealed some anomalies to these general results since some states in the country have unique cropping patterns.*

**Key words:** *Crop diversity; Drought; Indian agriculture; Green Revolution*

**JEL Codes:** *Q10; Q15; Q54*