

# **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 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 diversity can cushion yield and income losses for farmers during droughts. The results indicate that diversification provides resilience to the yield and revenue during a rainfall deficit period, but when there is a simultaneous occurrence of dry spells and high temperature, crop diversity does not provide any insulation. 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.