

# Use of Regression Analysis to determine the impact of Rainfall on Indian Agriculture During Covid-19

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## Abstract

Covid- 19 dominantly impacted the Indian agricultural sector. During the period of COVID-19 the southwest monsoon covered a major part of the country, thus resulting in an increase of 9 percent coverage in rainfall than the usual average period. Due to the good amount of rainfall the area under cultivation during the kharif season stood above 4.8% than the previous year. During, the initial lockdown period the agriculture has not been much affected and an increase in migration resulted an increase in people employed in agriculture. Through regression analysis the relationship between the yield and rainfall has been determined. The R2 values have been calculated and the spatial relationship between them has been established. Regions with higher R2 values have been found to be more dominantly affected by Covid-19, though in certain areas strong R2 has shown a weaker spatial relationship owing to certain other factors and policies taken by the Government. Therefore, regression analysis can be used as a suitable method to study the relationship of rainfall and agricultural yield during Covid-19. Keywords: Agriculture, Regression Analysis, Spatial relationship, Rainfall, Covid-19.

# **Use of Regression Analysis to Determine the Impact of Rainfall on Indian**

## **Agriculture During Covid -19.**

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### **Abstract**

Covid- 19 dominantly impacted the Indian agricultural sector. During the period of COVID-19 the southwest monsoon covered a major part of the country, thus resulting in an increase of 9 percent coverage in rainfall than the usual average period. Due to the good amount of rainfall the area under cultivation during the kharif season stood above 4.8% than the previous year. During, the initial lockdown period the agriculture has not been much affected and an increase in migration resulted an increase in people employed in agriculture. Through regression analysis the relationship between the yield and rainfall has been determined. The  $R^2$  values have been calculated and the spatial relationship between them has been established. Regions with higher  $R^2$  values have been found to be more dominantly affected by Covid-19, though in certain areas strong  $R^2$  has shown a weaker spatial relationship owing to certain other factors and policies taken by the Government. Therefore, regression analysis can be used as a suitable method to study the relationship of rainfall and agricultural yield during Covid-19.

**Keywords:** Agriculture, Regression Analysis, Spatial relationship, Rainfall, Covid-19.