



## **Tracing the Impact of Climate Change on Pothohar Agriculture: a Case Study of Wheat**

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### **Abstract**

Changing climate is impacting all the field of life and jolting the daily businesses f mankind. It is now and established fact that climate is changing. In case of Pakistan, it has become a challenge for the economy of Pakistan which is based mainly on agriculture and its allied sectors. There is a serious threat on the cropping sector of the country and it is vulnerable to change in two major parameters of climate viz., rainfall and temperature. The current study is conducted on tracing the likely impact of changing climate on cropping sector of Pothohar region agriculture of Pakistan with main focus on Wheat crop by using a cross sectional data. The data was collected through a structured questionnaire in Rawalpindi division which is then regressed against time series data of climatic variables obtained from metrological stations. Ricardian model was used to test the relationship between Net Farm Revenue (NFR) and climate across the Pothohar region. The results of the model show that escalation in temperature has significant but negative impact on Wheat production. Interestingly, increase in revenue was obtained with the escalation in rainfall. However, overall extent of negative impact of increase in temperature is more than positive impact of rainfall in the Pothohar region. The role of extension department has doubled in the changing scenario of climate with more monetary support is needed to the farmers from government side to invest in climate smart agriculture techniques and to adapt to climate change and its impacts.

**Keywords:** Climate change, Pothohar, wheat, arid cropping.