

# **Exploratory Analysis of Rainfall Data in India for Agriculture**

## **Abstract:**

Indian is an agriculture country, the economics growth of each year depends on the amount of duration of monsoon can lead to destruction of scope crops, which may result in scarcity of some agricultural products which in turn can cause food inflation, insecurity and public unrest.

## **Introduction:**

The many research studies to analyze the Exploratory Analysis of Rainfall Data in India for Agriculture. Data Science applications for farming includes conventional neural networks to detect crop disease and implements of IOT Sensors. Farmers can achieve even greater predictive power by combining site-specific data and third-party sources on weather and other factors.

## **Problem Statements:**

Bacially , during the summers, the indian subcontinent hets up more as compared heats up more as compared to the Indian subcontinent. Flooding a key agriculture production areas can lead to widespread damage to crops, fencing and loss of livestock.Flooding can run fields and destroy crops by causing erosion and soil displacement.

## **Significance:**

Climate is irregular and change unpredictably. Farmers pray for good rain every year as it provides the necessary irrigation to set agriculture in motion. It is the balance proper watering is key to the best crops possible.

## **Method:**

The project will be developed by the Anaconda platform than the data collection. The process is referred to the official government weather climate website, Skymetwhether, India Agriculture and climate Dataset, refer to some data science platforms like Kaggle, google.

## **Literature Survey:**

Machine learning takes weather data and builds relationships between the available data and the relative predictors. ML can help improve physically grounded models, and by combining both approaches, they can get accurate results.

## **Techniques Used:**

We will be using the classification of algorithms such as Decision tree, Random Forest, KNN and Boost. We will train data with these algorithms. Data set is collected. After the analysis of collectinf data then do the analysis. Some Machine learning libraries are imported.

## **Conclusion:**

Main idea is to understand normal rainfall, default rainfall , excess rainfall and seasonal rainfall. This analysis will provide useful information for framers to access the availability of water and create. We will used for land preparation and sowing.

## Reference:

- Mariam Zachariah<sup>1</sup>, Arpita Mondal<sup>1,2,4</sup>, Mainak Das<sup>2</sup>, Krishna Mirle AchutaRao<sup>3</sup>, and Subimal Ghosh<sup>1,2</sup>

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