**Project Title :**

**Exploratory Analysis of RainFall Data in India for Agriculture**

**Project Group Name :**

**Exploratory Analysis of RainFall Data in India for**

**Agriculture 53GP**

**Mentor(s) Name :**

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**Literature Survey On Exploratory Analysis**

**Of RainFall Data in India for Agriculture**

# Title: Exploratory Data Analysis of Indian Rainfall Data

**Author’s name:**  Anusha Gajinkar, Vighnesh Tamse-(Article title: Exploratory Data Analysis on Indian Rainfall Data (1901–2017))

**Link:** https://medium.com/@anusha.gajinkar/exploratory-data-analysis-of-indian-rainfall-data-f9755f2cc81d

**Describing the data:**

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**Title:** Frequency Analysis and Exploratory of Rainfall Variability in

Bounkiling River Basin in a Context of Climate Change

and Variability.

**Author’s Name:** [R Diouf](https://www.researchgate.net/scientific-contributions/Rokhaya-Diouf-2130215234), [Hyacinthe Sambou](https://www.researchgate.net/profile/Hyacinthe-Sambou), [Vieux Boukhaly Traore](https://www.researchgate.net/profile/Vieux-Traore), [M L Ndiaye](https://www.researchgate.net/scientific-contributions/Mamadou-Lamine-Ndiaye-2114673274).

**Link:**https://www.researchgate.net/publication/318281448\_Frequency\_Analysis\_and\_Exploratory\_of\_Rainfall\_Variability\_in\_Bounkiling\_River\_Basin\_in\_a\_Context\_of\_Climate\_Change\_and\_Variability

**Abstract**: The goal of this article is to conduct a frequency analysis and exploratory of rainfall in the

Bounkiling watershed. Usingrainfall time series of Bounkilingrain gauge, we have first conducted the frequency

analysis to determine the rainfall distribution and define the future occurrence probabilities. Hydracess

software is used to calculate the frequency of the rains, return periods and the coefficients of severity and

irregularity. Next, we have performed exploratory analysis based on graphs to highlight the alternation between

wet and dry periods. Analysis of the results allowed classifying the rainfall of Bounkilinginto four levels (very

heavy rainfall, heavy rainfall, low rainfall and very low rainfall).Results also show that the gap between a wet

year and a dry year of the same frequency, increases with recurrences. At the annual scale, level, the gap

between the maximum and the minimum is very significant and varies greatly from year to year. Indeed, 2005 is

the most surplus year in 1980 and the most deficits. At the monthly scale, August is the wettest month and May

the less rainy. This study represents a real opportunities for decision makers in the management of irrigation

schemes and strategies against the hydroclimatic risks.

Keywords: Frequency and exploratory analysis, Rainfall trend, climate monitoring, sustainable water

resources, Bounkiling river system, Senegal.