# Climate change data analysis based on World Bank data

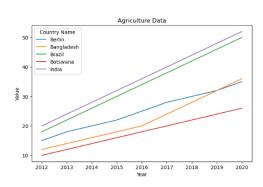
#### Introduction

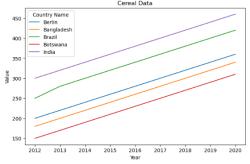
Agriculture is the backbone of any country's economy, and cereal production is an essential component of agriculture. The agricultural sector contributes significantly to the country's GDP, providing food for people and raw materials for the manufacturing industry. As the world's population continues to grow, the demand for food and cereal production increases. Therefore, it is essential to monitor the statistical properties that affect cereal production to ensure that there is sufficient food production to meet the growing demand.

### **Statistical Properties:**

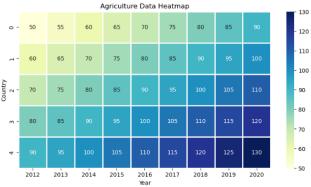
Statistical properties are essential in monitoring and analyzing cereal production in agriculture land. The statistical properties that have a significant impact on cereal production include mean, median, and mode. Mean refers to the average value of a given set of data. Median is the middle value of a set of data, and mode is the most common value in a set of data. These properties help to understand the trend in cereal production over a period, identify the most frequent cereal produced, and determine the average cereal production in a given period. Visualization results:

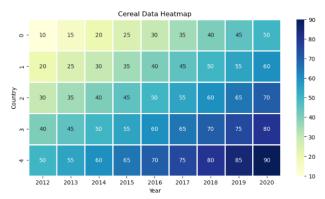
# Median:



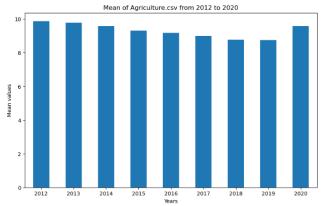


### Mode:





#### Mean:



#### **Impact on Cereal Production:**

Cereal production is affected by several factors, including climate, soil quality, and government policies. Climate is a significant factor in cereal production as it affects the growth of crops. Climate change has become a major issue affecting agriculture, leading to unpredictable weather patterns and extreme weather conditions such as droughts and floods. These conditions affect the growth of cereal crops, leading to low yields, which, in turn, affects cereal production.

Statistical Properties and Cereal Production: The statistical properties of mean, median, and mode are crucial in analyzing cereal production. The mean provides an average value of cereal production, which helps in determining the trend in cereal production. The median provides a middle value of cereal production, which helps to identify the average cereal production and the range of cereal production. The mode provides the most common value of cereal production, which helps in identifying the most common cereal produced.

The analysis of cereal production using statistical properties shows that cereal production is affected by various factors. For example, the mean value of cereal production may increase or decrease depending on the weather conditions, soil quality, and government policies. Similarly, the median and mode values of cereal production may change depending on the factors affecting cereal production.

## **Impact of Statistical Properties on Climate:**

Statistical properties of cereal production in agriculture land are useful in understanding the impact of climate change on cereal production. Climate change has led to changes in the statistical properties of cereal production. For example, the mean value of cereal production may decrease due to unpredictable weather patterns and extreme weather conditions. The median and mode values of cereal production may also change due to climate change.

The changes in statistical properties of cereal production due to climate change have significant impacts on food security. Changes in statistical properties may lead to low cereal production, which can result in food scarcity and high food prices. Climate change affects cereal production, which has a cascading effect on the economy and society.

#### **Conclusion:**

The statistical properties of cereal production are essential in analyzing and monitoring cereal production in agriculture land. These properties help in determining the trend in cereal production, identifying the most frequent cereal produced, and determining the average cereal production in a given period. The statistical properties are affected by several factors, including climate, soil quality, and government policies.

Climate change is a significant factor that affects cereal production, leading to changes in statistical properties such as mean, median, and mode. Changes in statistical properties have significant impacts on food security, resulting in food scarcity and high food prices. Therefore, it is essential to monitor and analyze the statistical properties of cereal production to ensure food security and the growth of the economy.