

## **Investigating Global Food and Agriculture Statistics and Climate Change**

### **Introduction:**

Agriculture holds a prominent place when it comes to human civilization. As we compare from the start, we can see many rapid changes that have been happened towards the agriculture and thanks to the growing technology which in terms changed the consumer preferences. We want to study more about these changes from the past years and use Tableau to visualize these changes to narrate in a better way.

### **Objectives:**

1. Connect and blend datasets using joins, unions, or blending features to create a comprehensive view of the data.
2. Create interactive dashboards and visualizations to highlight key insights and trends within the data, such as trends in global food production or the impact of climate change on temperatures over time.
3. Use parameters and filters to allow users to interact with the data and adjust the visualizations to meet their needs.
4. Develop a final presentation that showcases the insights and trends discovered in the data using compelling visualizations and clear storytelling techniques.

**Datasets:** We will use the "Global Food and Agriculture Statistics" dataset available on Kaggle for this project. The dataset contains information about food production, consumption, and trade across different regions and countries. Various crops, fertilizers, forests, and lands are included. There are over 1048575 data points in this CSV file covering a time from 1961 to 2013. The second dataset that we will use for this project is the "Climate Change: Earth Surface Temperature Data" dataset, also available on Kaggle. The dataset contains information on global land temperatures by city, state, country. The dataset is in a CSV format and has over 8.5 million data points covering a time from 1750 to 2015. We will join this dataset to the Global Food and Agriculture Statistics dataset by country.

**Methodology:** To explore and analyze the data in the dataset, we will use Tableau, a data visualization software. We'll use numerous charts, graphs, and maps to visualize the data and identify key trends and patterns. we also intend to employ statistical analysis to evaluate the relationships between the dataset's variables. The observations will be presented in the manner of a dashboard, which also will highlight the most important data trends and insights.

### **References:**

1. "Global Food and Agriculture Statistics." Kaggle, United Nations, 7 June 2018, [www.kaggle.com/unitednations/global-food-agriculture-statistics](https://www.kaggle.com/unitednations/global-food-agriculture-statistics).
2. "Climate Change: Earth Surface Temperature Data." Kaggle, Berkeley Earth, 19 Oct. 2016, [www.kaggle.com/berkeleyearth/climate-change-earth-surface-temperature-data](https://www.kaggle.com/berkeleyearth/climate-change-earth-surface-temperature-data).
3. FAO. (2014). The State of Food and Agriculture 2014: Innovation in family farming. Food & Agriculture Org