

Business Question and Visualization Report

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| Date | 23 June 2025 |
| Team ID | NA |
| Project Name | Global Food Production Trends and Analysis: A Comprehensive Study from 1961 to 2023 Using Power BI |
| Maximum Marks | 5 Marks |

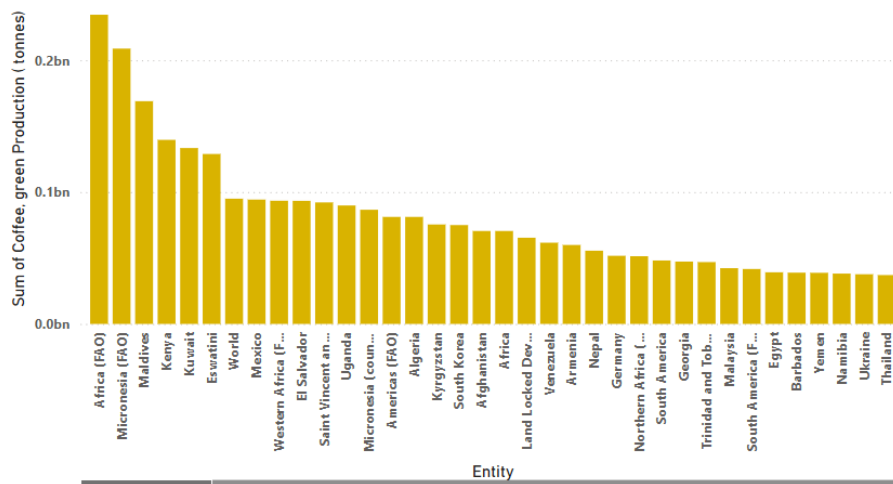
Visualization development refers to the process of creating graphical representations of data to facilitate understanding, analysis, and decision-making. The goal is to transform complex datasets into visual formats that are easy to interpret, enabling users to gain insights and make informed decisions. Visualization development involves selecting appropriate visual elements, designing layouts, and using interactive features to enhance the user experience. This process is commonly associated with data visualization tools and platforms, and it plays a crucial role in business intelligence, analytics, and reporting.

Business Questions and Visualisation

The process involves defining specific business questions to guide the creation of meaningful and actionable visualizations in Power BI. Well-framed questions help in identifying key metrics, selecting relevant data, and building visualisation that provide insights.

1. Which countries or regions are the top producers of green coffee globally, and how does production compare across different entities?

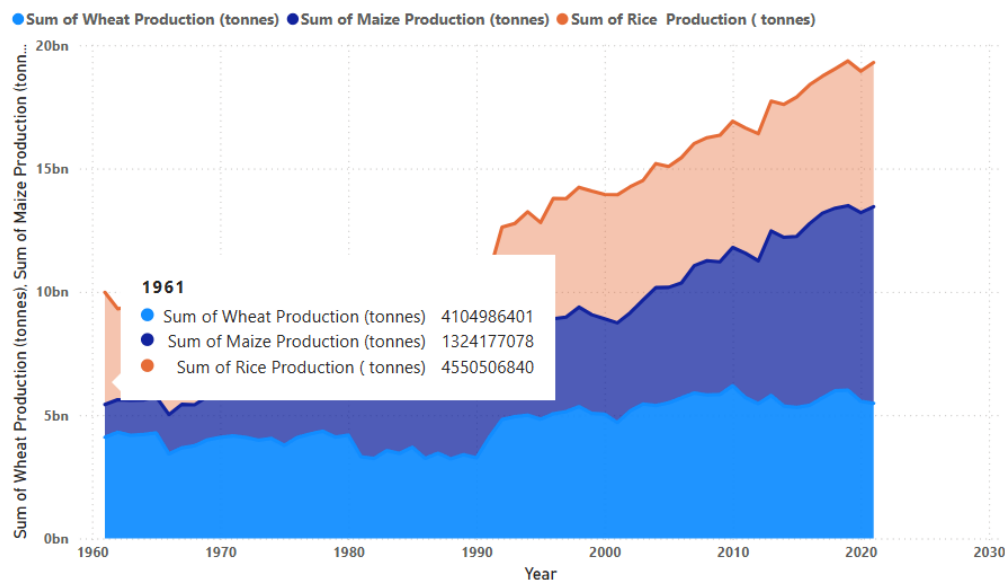
Sum of Coffee, green Production (tonnes) by Entity



This bar chart reveals that Africa (FAO) is the leading producer of green coffee, followed closely by Micronesia and Maldives.

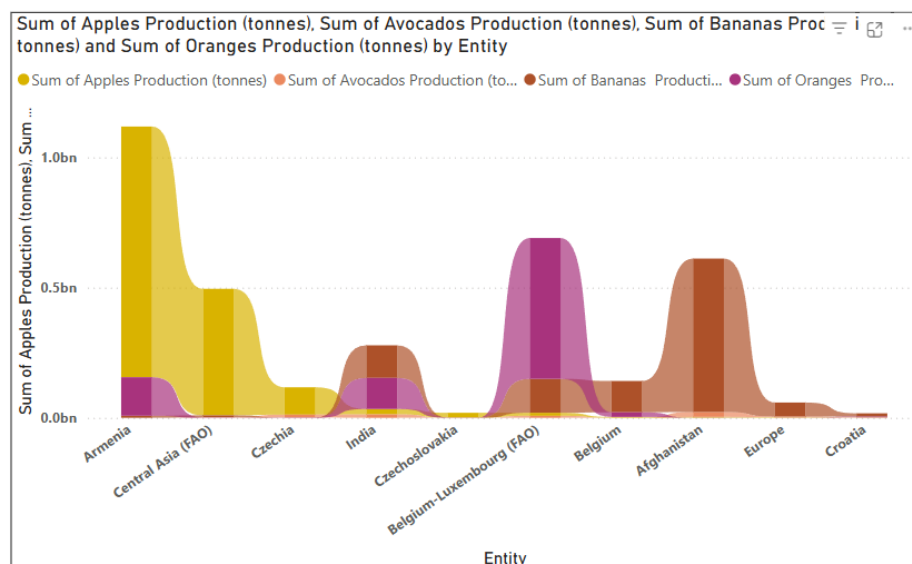
2. How have global production trends of wheat, maize, and rice evolved from 1961 to 2023, and which crop has experienced the most significant growth over time?

Sum of Wheat Production (tonnes), Sum of Maize Production (tonnes) and Sum of Rice Production (tonnes) by Year



This stacked area chart illustrates the year-wise growth in the production of three major staple crops — wheat, maize, and rice — from 1961 to 2023.

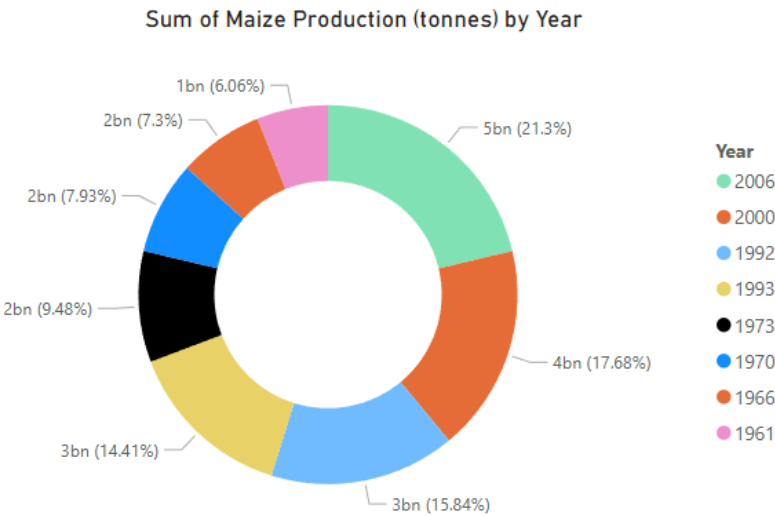
3. How does the production of key fruits—apples, avocados, bananas, and oranges—vary across different regions, and which entities dominate each category?



This multi-series area chart shows:

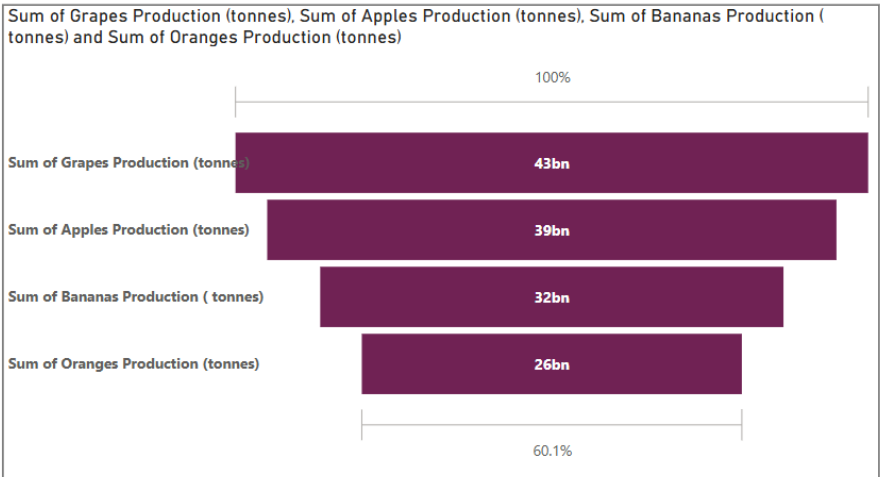
- Central Asia (FAO) leads significantly in apple production.
- Afghanistan and Belgium show notable dominance in banana and orange production respectively.
- India and Belgium-Luxembourg (FAO) also contribute across multiple fruit categories.

4. How has global maize production changed across key historical years, and which year recorded the highest output?



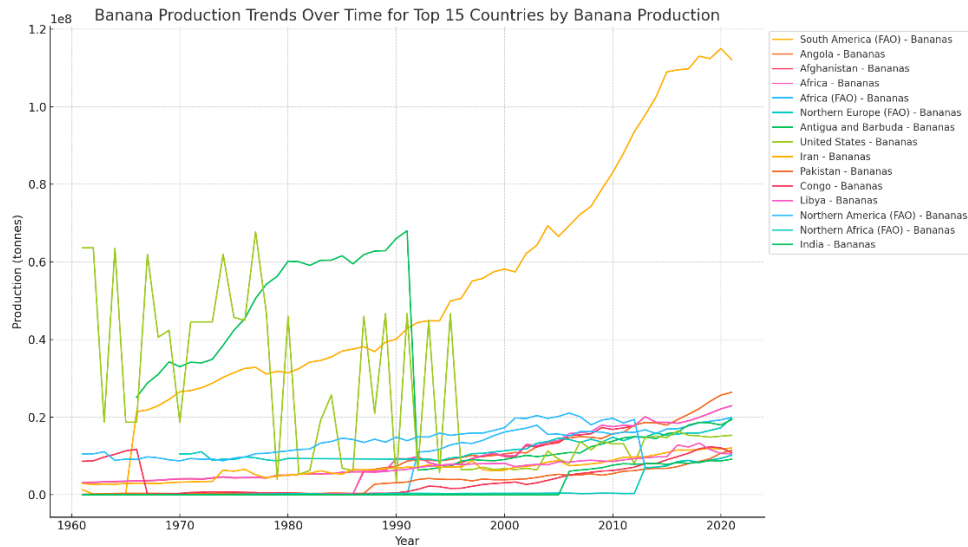
This donut chart breaks down maize production across selected years.

5. Which fruit has contributed the most to global production volume, and how do apples, bananas, grapes, and oranges compare in terms of total output?



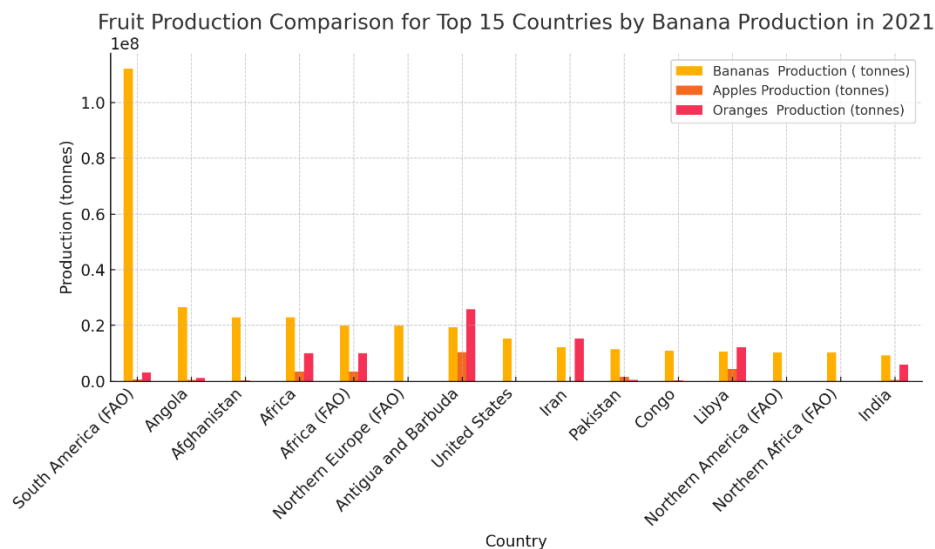
This horizontal bar chart compares the total global production (in tonnes) of key fruits.

6. Which countries have experienced the most significant growth or decline in banana production from 1961 to 2023, and what trends can be observed among the top 15 producers?



This multi-line trend chart tracks banana production across the top 15 countries/regions over several decades.

- 7. Among the top 15 banana-producing countries in 2021, which countries also have the highest production volumes for apples and oranges, potentially offering diversified sourcing opportunities for a global fruit distributor?**



- 8. Which countries/regions in the top 15 (e.g., Argentina, Morocco, South Africa) represent the highest-volume agricultural producers, signaling priority targets for investing in logistics infrastructure like grain silos or port expansions?**

