

World Food Shortage Problem : Africa as a Case Study.



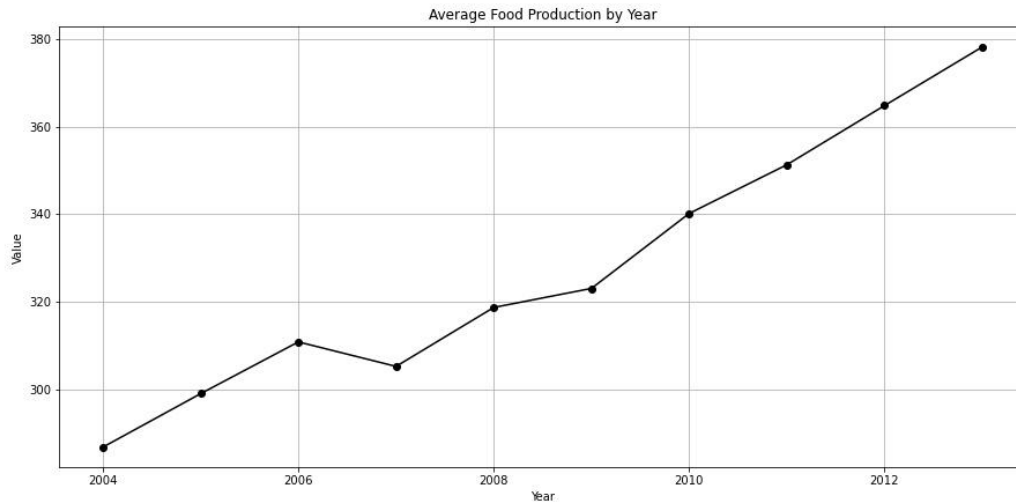
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Introduction

The [Sustainable Development Goal 2- Zero Hunger](#) set to be achieved by 2030 by the United Nations is to end hunger and ensure access by all people to nutritious and healthy food. With the food shortage problem in the world, this goal will be difficult to achieve. According to the [United Nations](#) study, millions of people went hungry in the year 2020 during the pandemic and the years before.

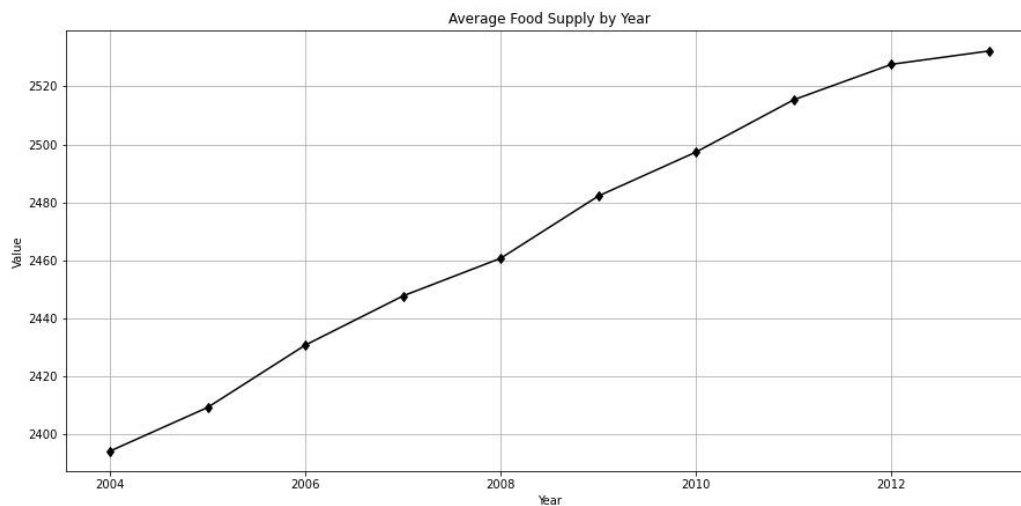
This report presents the assessment of food production and food consumption in 45 African countries based on the [Africa food production data](#) and [Africa food supply data](#) from 2004 to 2013 with the aim to proffer a solution to the world's food shortage problem. It includes trends in food production and food consumption over the years, average and median food production, some discrepancies between food production and consumption in Africa based on the outliers investigated in the data, a comparison between average food consumption and production for each year as well as other insights obtained from the data.

Trends in Food Production From 2004 to 2013



Food production in Africa increased significantly from 2004 to 2006 until the quantity of food produced dropped in 2007 as a result of the [global food crisis](#) that lasted till 2008. Not only was there an increase in food prices in 2007, there was also an increase in the cost of food production. The crisis affected the cost of fertilizers used in growing food. In order to curb this crisis, a global awareness was raised to admonish countries to produce more food and ensure food security. This we can say might be one of the reasons for the increase in food production from 2009 till 2013.

Trends in Food Consumption From 2004 to 2013



Food consumption can be seen to be increasing as the years go by. Increase in population is one of the many factors responsible for increased food consumption in Africa.

Average and Median Food Production

The average and median food production for each year is shown in the table below

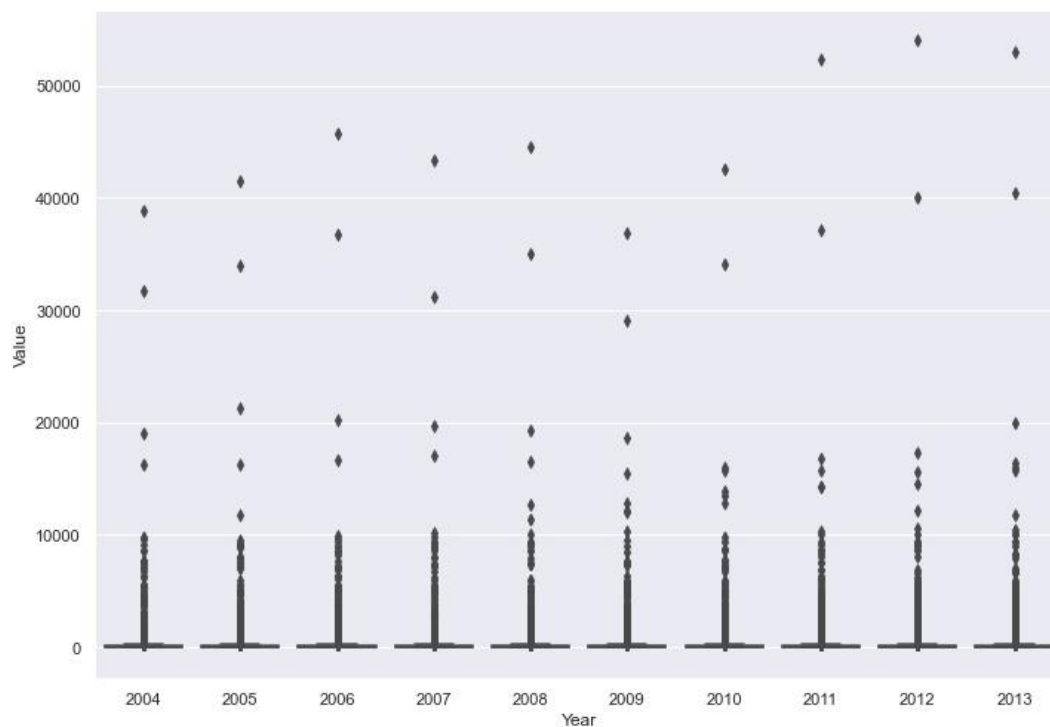
Year	Average Food Production (kilotons (kt))	Median Food production (kilotons (kt))
2004	286.767301	16
2005	298.986592	16
2006	310.814014	17
2007	305.215830	17
2008	318.686851	18
2009	323.040657	18
2010	340.166955	20
2011	351.303633	21
2012	364.831816	21
2013	378.227568	22

The average and median food production in Africa from the year 2004 to 2013 are 327.79kt and 18kt respectively.

Outliers Detected

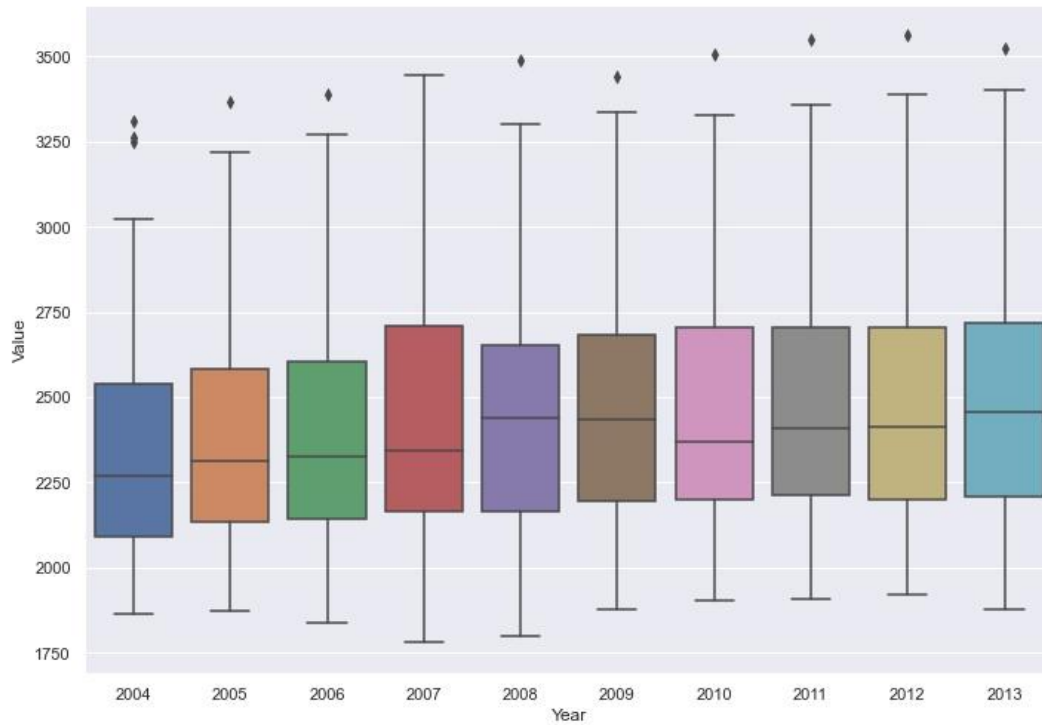
Some extreme values were detected in both data used for analysis with the aid of boxplots as shown below.

Fig: Outliers in food production data



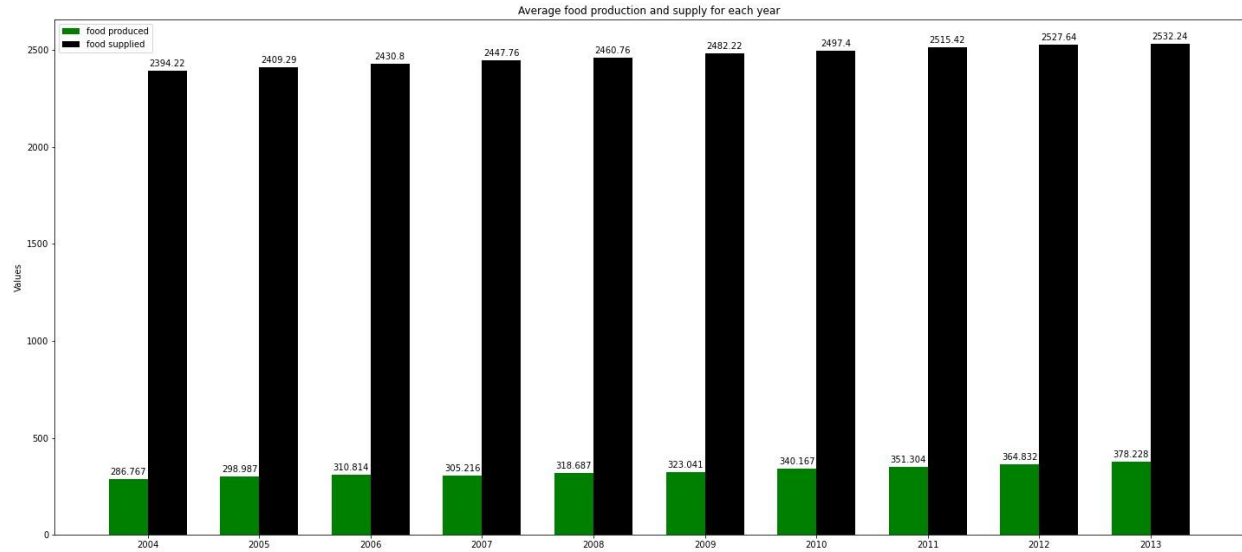
With the minimum food production value being 0kt (the possibility of a country not producing their own food) and the median value being 18kt, Nigeria was seen to produce as much as 54000kt of cassava and its products thereby showcasing Nigeria as the highest food producing country in Africa.

Fig : Outliers in food consumption data



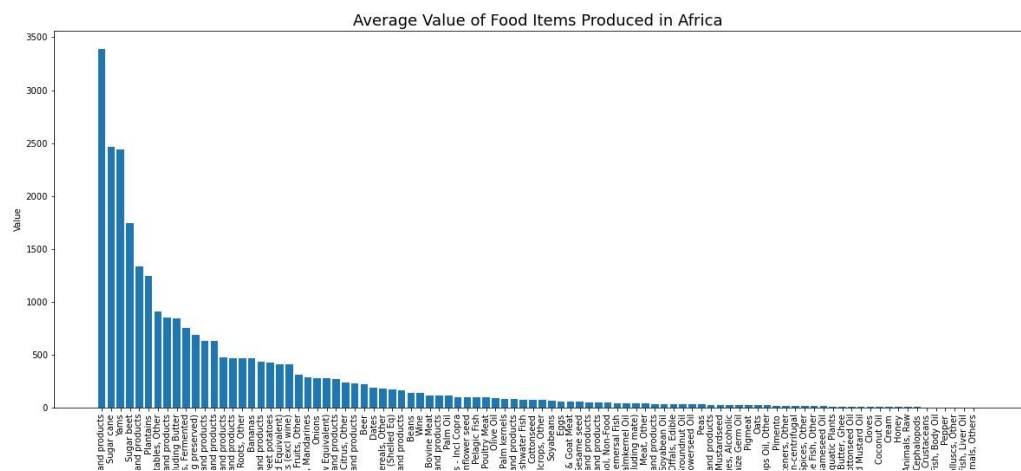
Despite Nigeria being the highest food producing country, the outliers in the food supply data revealed that Egypt consumed the most food in Africa from 2007 to 2013

A Comparison Between Average Food Production and Consumption for Each Year



A [report](#) says that per capita food consumption in Africa has been rising 10 times faster than per capita food production thereby leading to increased food importation. This can be confirmed from the chart above which shows that the food consumption rate in Africa is way higher than the food production rate.

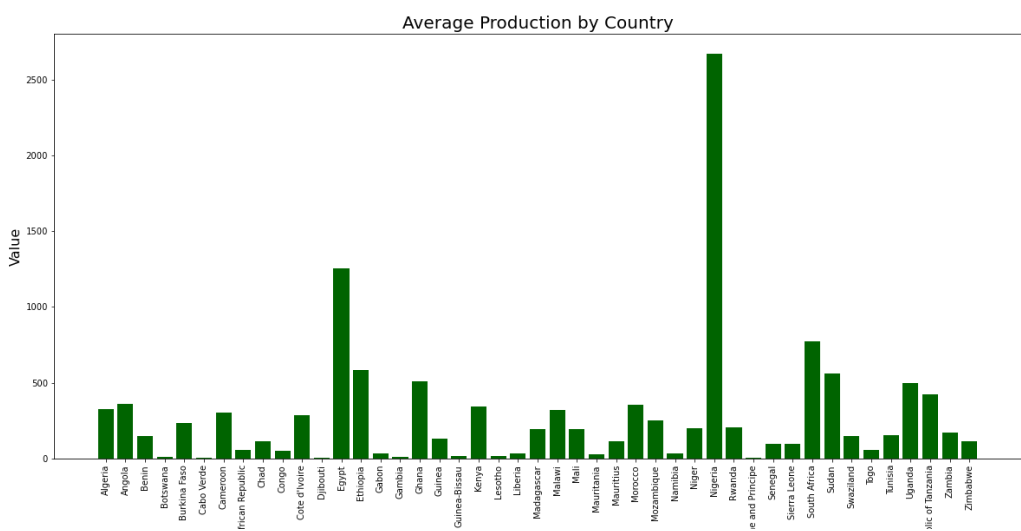
Food Items Produced in Africa



There are many food items produced in Africa ranging from fruits, vegetables, livestock, dairy products, oils, cereals e.t.c

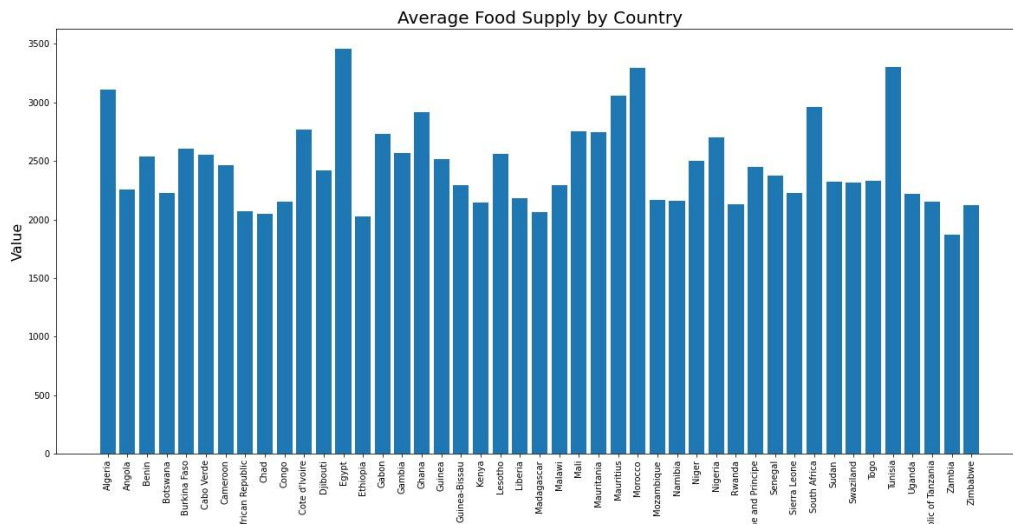
The top food items produced in Africa are cassava and its products, sugar cane, yams, sugar beet, maize and its products, and plantains.

Average Food Production by Country



The top food producing countries in Africa are Nigeria, Egypt and South Africa.

Average Food Consumption by Country



The countries with the most food consumption rate in Africa are Egypt, Morocco and Tunisia.

Conclusion

From the analysis, it was observed that only a few countries in Africa produce food in large quantities. As the world population increase, there will be more demands for food globally. Therefore, in order to solve the world's food shortage problem, there should be increased food production across countries of the world.