

LET'S TALK ABOUT FOOD

Welcome to another piece. I hope you had a decent ride with the last one. If you did, time to take a seat for something refreshing. (Pun intended...and you will find out soon.)

Like the previous one, I shall kick-on this piece with a quote, "***Food, in the end, in our own tradition, is something holy. It's not about nutrients and calories. It's about sharing. It's about honesty. It's about identity.***"

When Louise Fresco made that quote, she probably didn't realise how universally applicable her statement was. She talked about what food meant in her tradition, but several other traditions across the world can easily relate with what she said. Food is indeed about identity.

If you are reading this, it'd be foolhardy of me to attempt to explain the importance of food to you. Even a child would be embarrassed on my behalf, if I made an attempt.

Nevertheless, we can still have a discussion on the economics of food.

For instance:

- Do you know the largest food producer in the world?
- What about Africa, can you take a guess?
- Which food do you think your country produces the most?
- What do you think of the supply of food in your country? Do you think it's the same proportion with the production of food?
- What do you think about your favourite food? Have you ever thought about whether your favourite food is your favourite because of the lack of variety of food produced in your country?

To explore a few of these questions, we shall dive into two datasets. They are:

- Africa Food Production (2004 - 2013)
- Africa Food Supply/Consumption (2004 - 2013)

Outlined below are a few things to note about the datasets:

- ❖ Both datasets account for 45 African Countries
- ❖ Both datasets account for a ten-year period (2004 - 2013)
- ❖ The food production dataset contains information on 94 different food items.
- ❖ The value of food produced is measured in kiloton(kt)
- ❖ The value of food supplied/consumed is measured in kcal/(person day)

Now that you have taken notes, let's cook:

Appetizer...

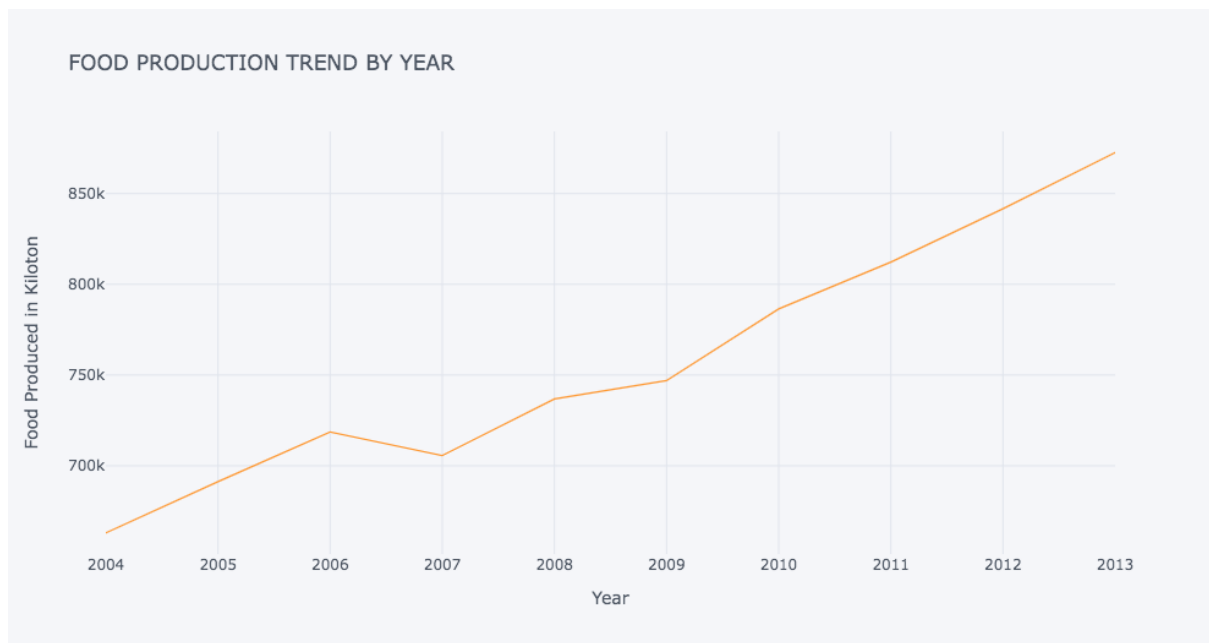


Fig: Food Production Trend by Year

Apart from the drop between 2006 and 2007, there was a progressive increase in food production in Africa within the period under review.

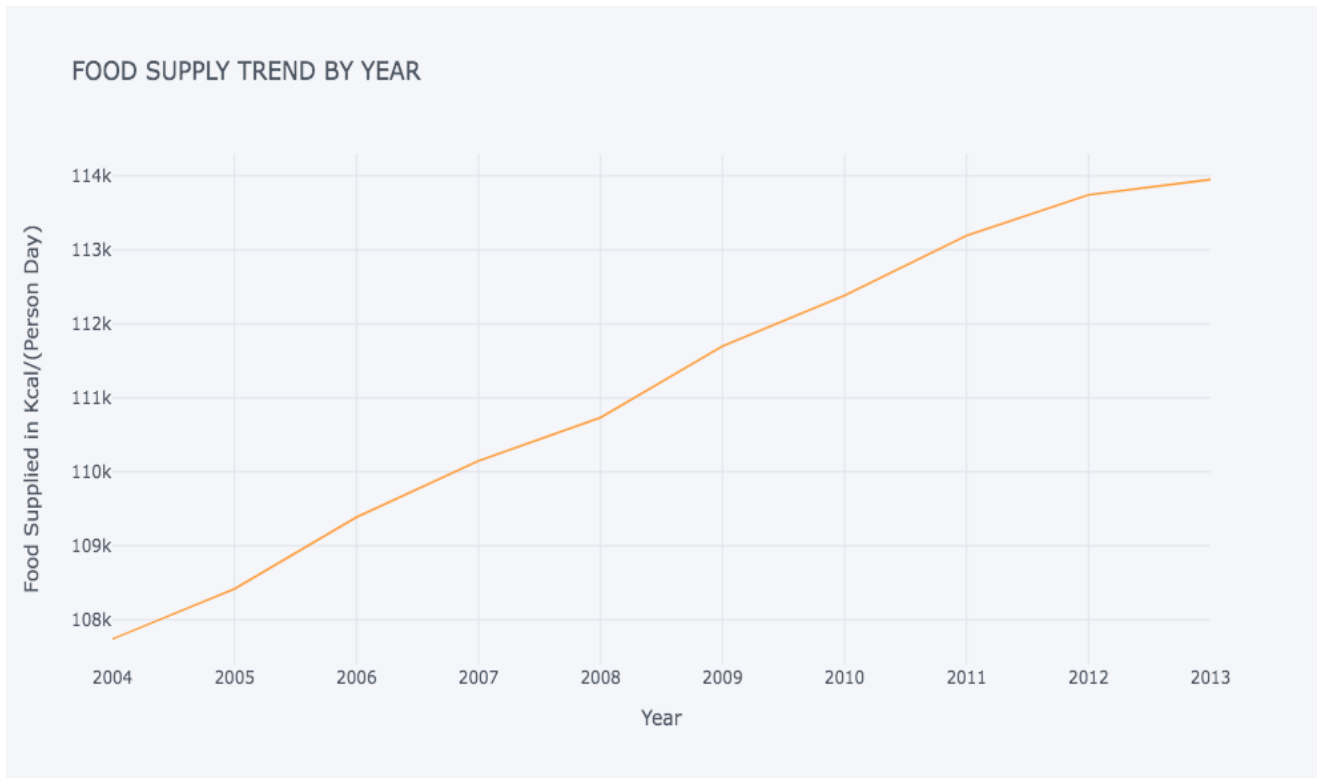


Fig: Food Supply Trend by Year

Similar to the production trend, there's a progressive increase in food supply in Africa within the period under review. And unlike the food production, there was no drop at any point.

Main Course...

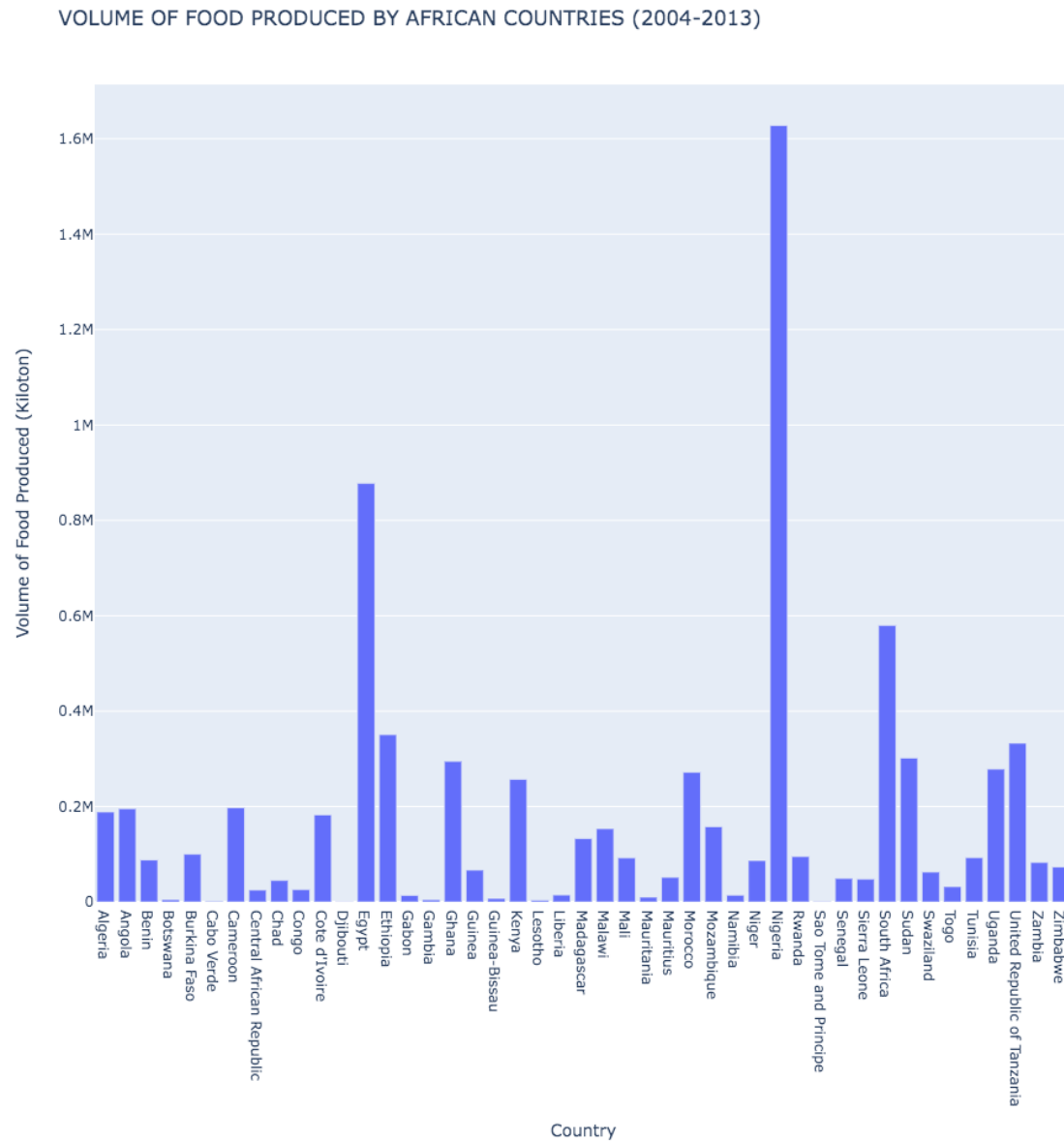


Fig: Volume of food produced by African countries

Food Production in Africa (2004-2013)

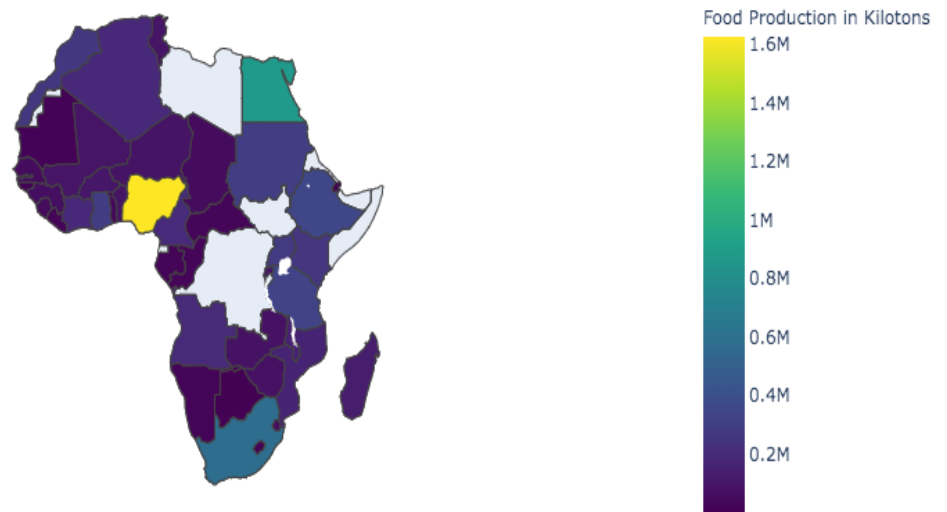


Fig: Map representing food production in Africa

Nigeria is the overwhelming leader in food production in Africa. Behind Nigeria are Egypt and South Africa to make up the Top 3 highest food producers in Africa.

Question: Do you think that Nigeria will also be the leader in food supply in Africa?
Let's find out.

VOLUME OF FOOD SUPPLIED BY AFRICAN COUNTRIES (2004-2013)

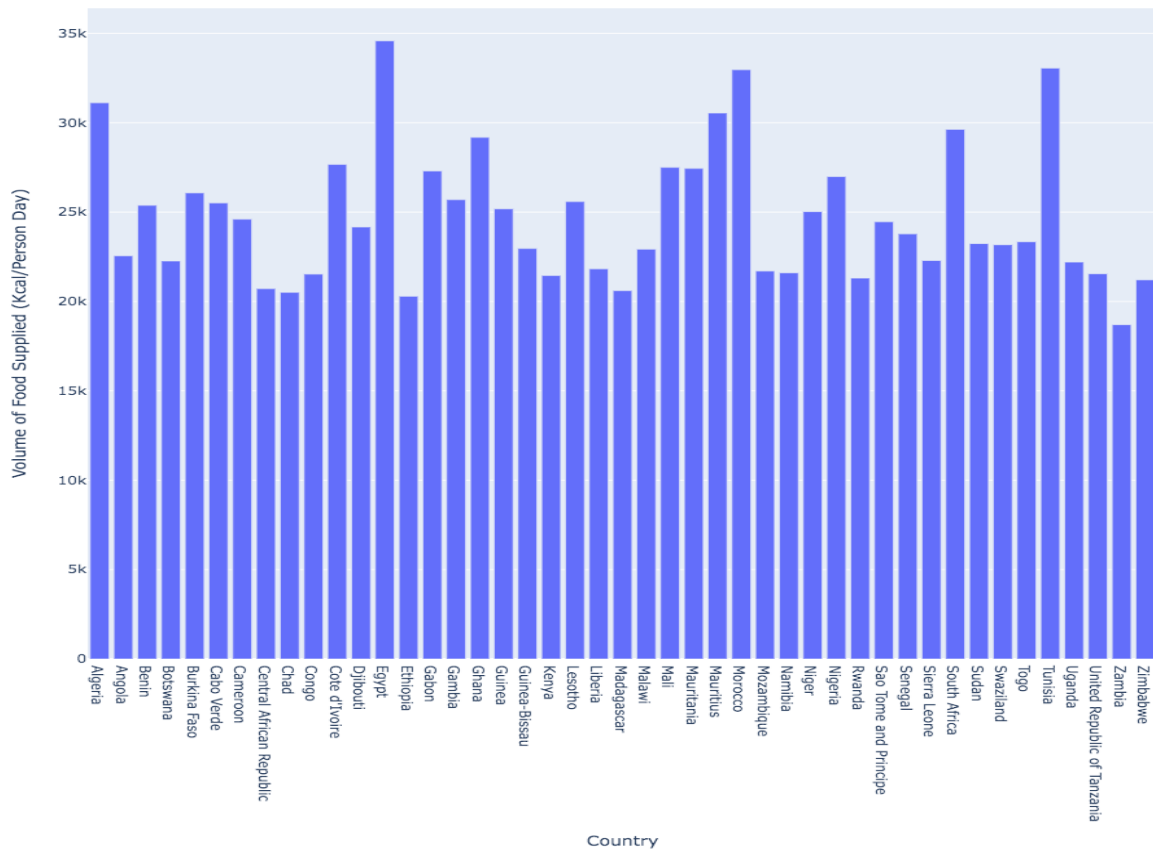


Fig: Volume of food supply in African countries

Food Supply in Africa (2004-2013)

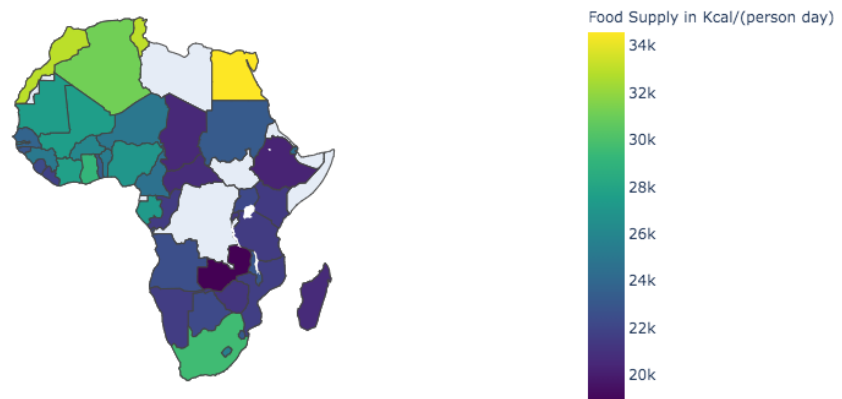


Fig: Map representing food supply in Africa

Despite being the overwhelming leader in food production, Nigeria doesn't rank amongst the Top 10 in food supply in Africa. This is an obvious indication that food production in an environment won't always translate to a proportional food supply in that environment.

We also see that Egypt, Tunisia, Morocco, and Algeria make the Top 5 in food supply in Africa. With such a rate, it won't be out of place to draw a narrative that North Africa is more adept at food supply than any other region in Africa.

Now, let's see which food item was the most produced within the period under review:

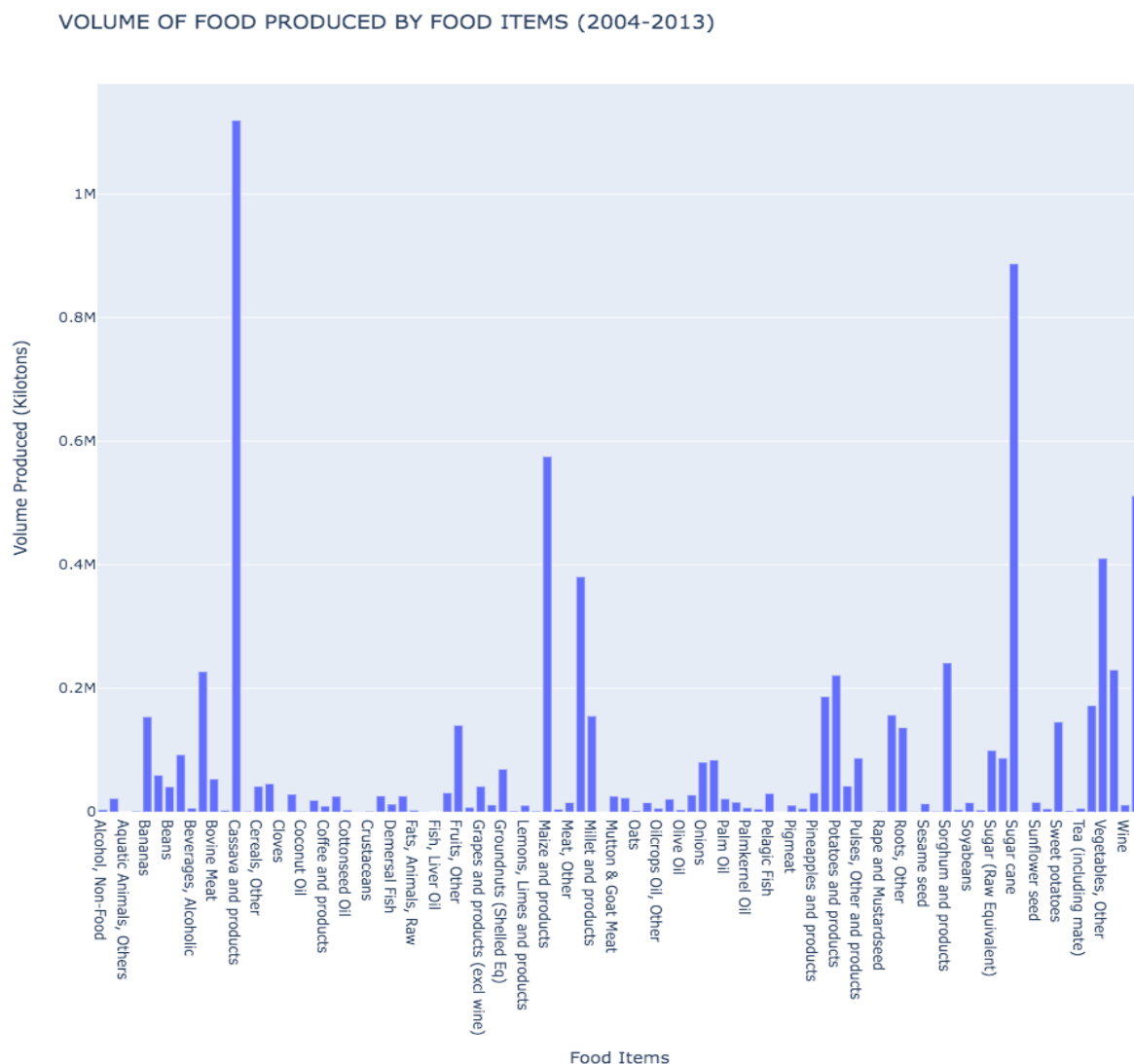


Fig: Volume of food produced by food items

Cassava(and products) is clearly top of the pile. Other food items that make the top five most produced food in Africa are: Sugarcane, Yam, Maize, and Vegetable.

There's a temptation to look at that information and run with a narrative that food items like Cassava, Sugarcane, Yam, and the other items with very high kiloton values are the most common food items produced across Africa. However, a few considerations should be looked at. One of which is:

- could it be possible that some of these food items are skewed to a few countries? And maybe these few countries produced a ridiculous amount of these food items?

Let's find out. Let's examine the food items produced by the Top 3 most productive countries (Nigeria, Egypt & South Africa).

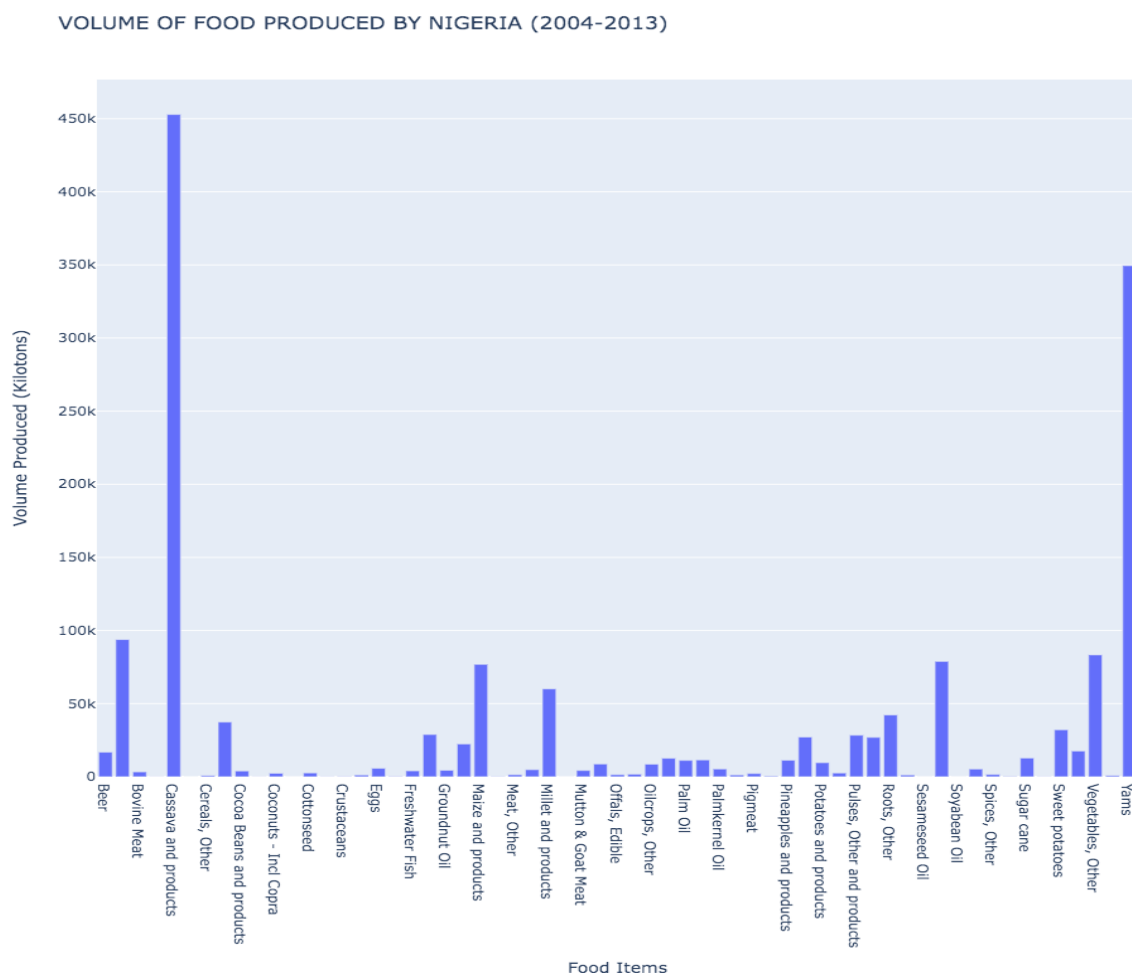


Fig: Volume of food produced by Nigeria

Nigeria's highest produces are Cassava(and its products) & Yams

Cassava and Yam are similar in their Tuberous nature, which suggests the relative ease in the production of Tuberous products in Nigeria. Furthermore, from my experience, anyone with a small piece of land can easily cultivate Cassava in its season. I reckon the same applies to Yam

While Nigeria overwhelmingly leads the food production scale in Africa, it is heavily reliant on two products, and needs to do better across other products.

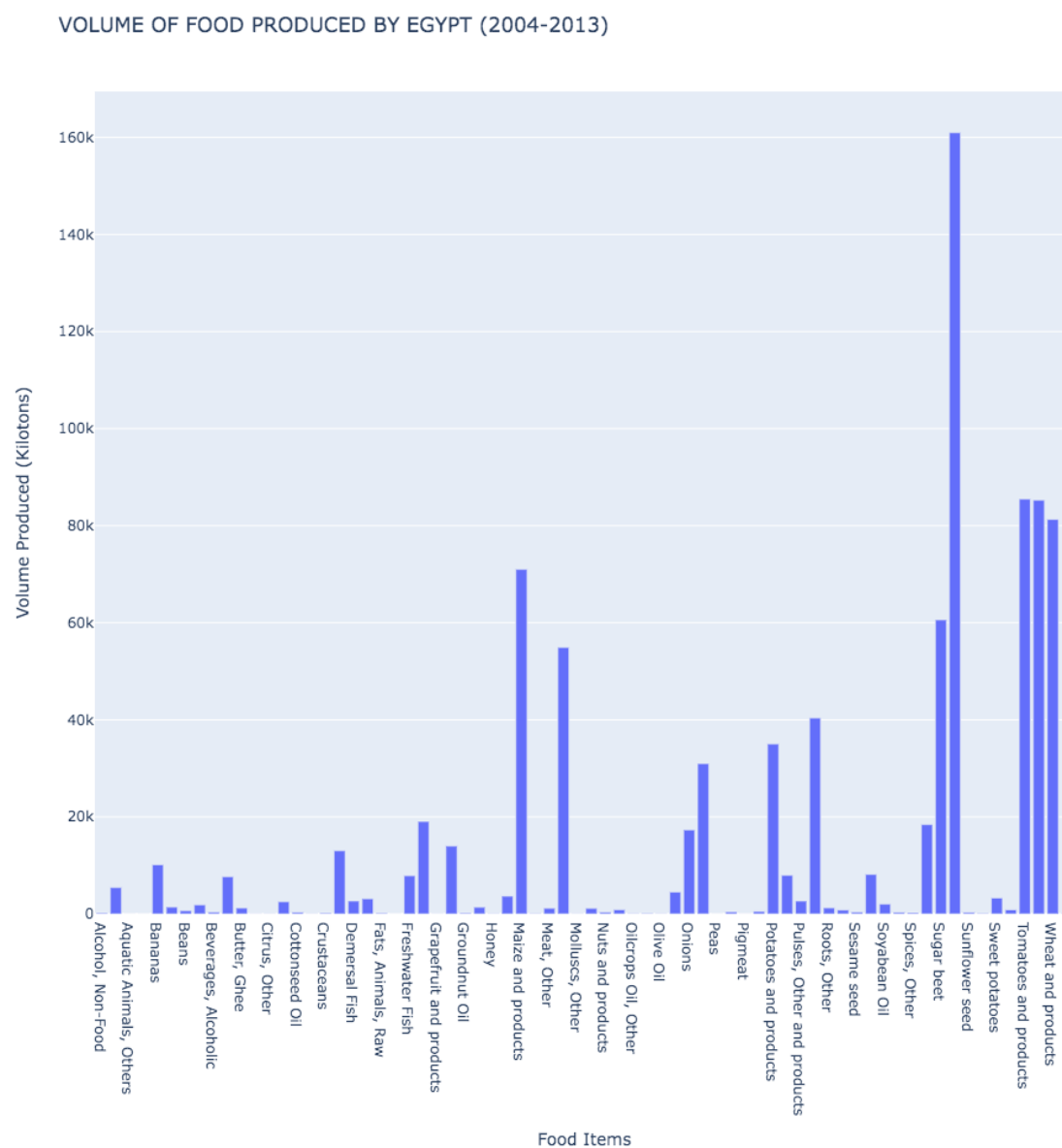


Fig: Volume of food produced by Egypt

Egypt has Sugarcane as its number one food item.

Unlike Nigeria, we see a relatively fair spread in food production. Products like Tomatoes, Wheat, Vegetables, and Maize account for the relatively better spread.

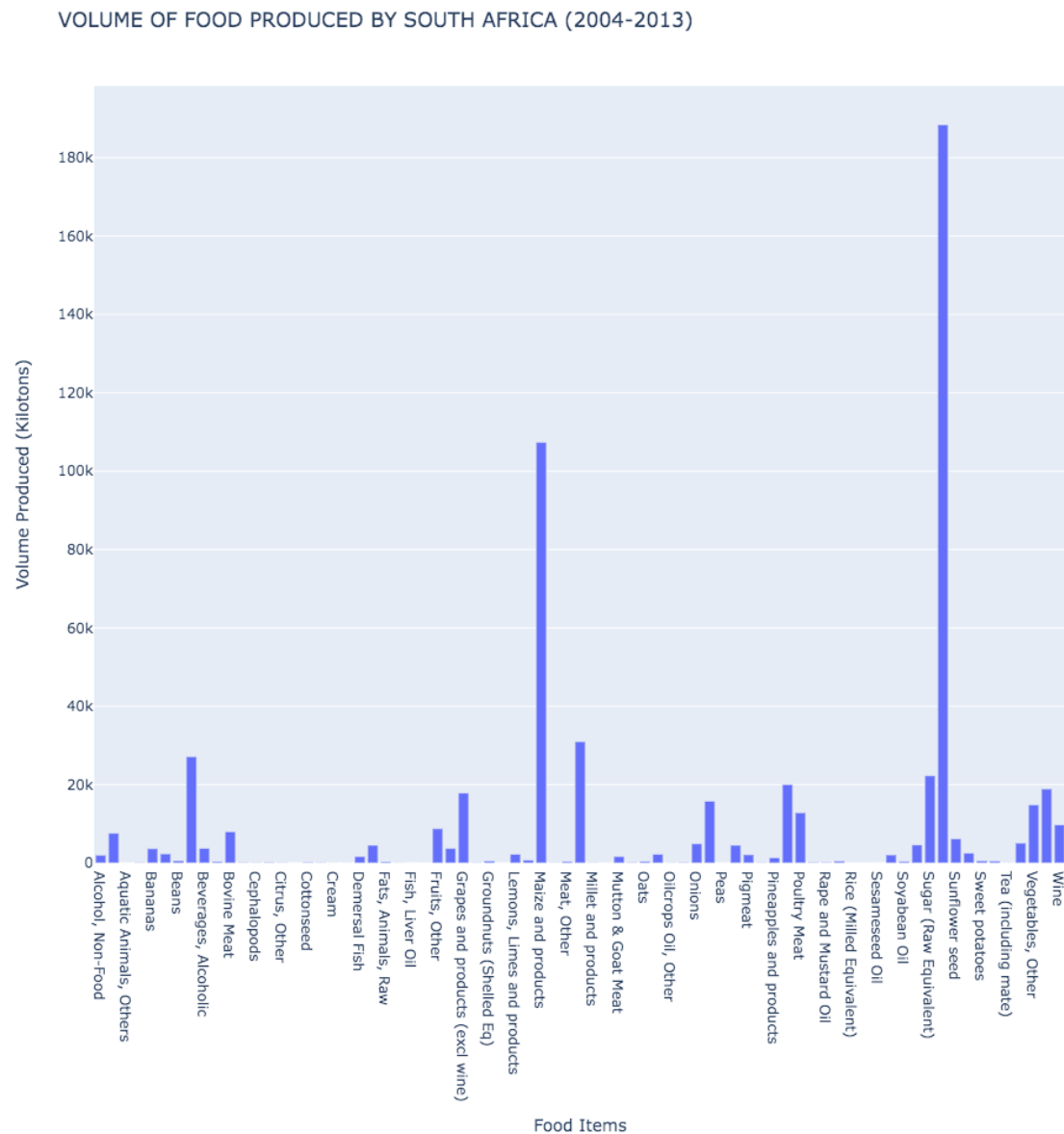


Fig: Volume of food produced by South Africa

South Africa, like Nigeria, appears to be heavily reliant on two food items. These items are Sugarcane and Maize.

From the examination of these three countries (Nigeria, Egypt & South Africa), we see patterns emerge.

- Both Egypt and South Africa produce very high kiloton values of Sugarcane and Maize
- Nigeria also fairs relatively well with the production of Maize.
- Nigeria produced very high kiloton values of Cassava and Yam.

With the above, we can see how skewed the overall information on the volume of food items produced is. This is an indication that the information cannot accurately define which food items are the most commonly produced across Africa.

Now we ask, which food items are the most commonly produced across Africa?

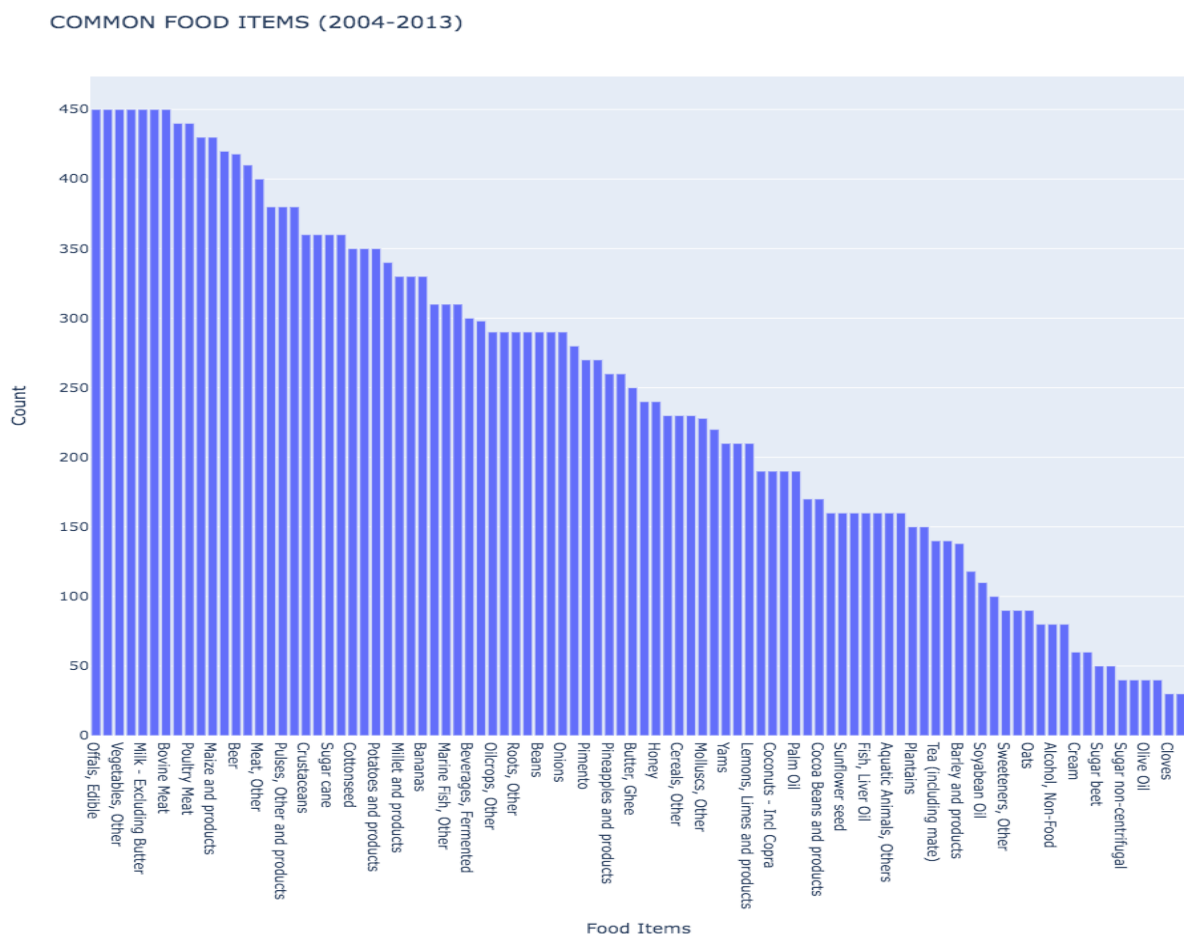


Fig: Common food items produced across Africa

The most common food items between countries are Offals, Fruits, Vegetables, Milk, Fats, Goat Meat, and Bovine Meat. Little surprise here considering that five(5) of the seven(7) items are products from Animals.

Special mention to our beloved Rice. Rice(as well as Maize) ranks amongst the Top 20 most commonly produced food items across Africa. Also, considering we've talked about Cassava, we should note that it ranks amongst the Top 30.

| | |
|----------------------------|-----|
| Offals, Edible | 450 |
| Fruits, Other | 450 |
| Vegetables, Other | 450 |
| Fats, Animals, Raw | 450 |
| Milk - Excluding Butter | 450 |
| Mutton & Goat Meat | 450 |
| Bovine Meat | 450 |
| Eggs | 440 |
| Poultry Meat | 440 |
| Pigmeat | 430 |
| Maize and products | 430 |
| Freshwater Fish | 420 |
| Beer | 418 |
| Groundnuts (Shelled Eq) | 410 |
| Meat, Other | 400 |
| Rice (Milled Equivalent) | 380 |
| Pulses, Other and products | 380 |
| Sorghum and products | 380 |
| Crustaceans | 360 |
| Sugar (Raw Equivalent) | 360 |

Fig: Top 20 commonly produced food in Africa

Dessert...

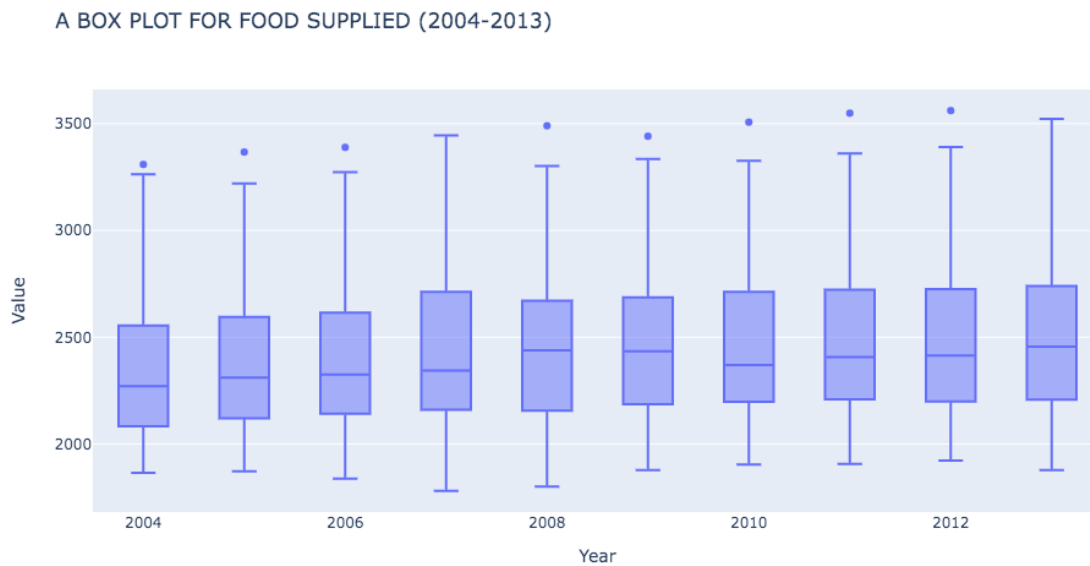


Fig: Box plot of food supplied (2004 - 2013)

This box plot provides certain statistical information on the performance of food supply per year. These statistical information include:

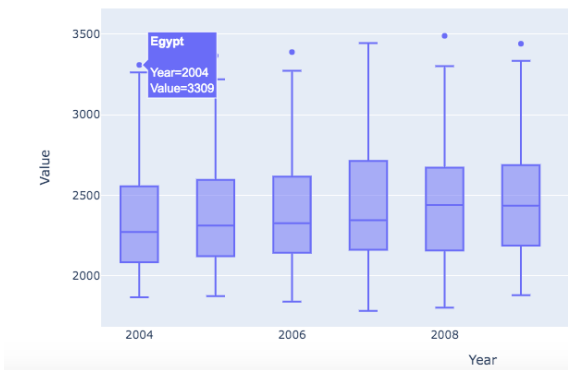
- Minimum value for each year
- Maximum value for each year
- Lower quartile for each year
- Upper quartile for each year
- Interquartile range for each year
- Media.

In the summarised information provided by the box plot, we see that Eight(8) of the years under review have outliers.

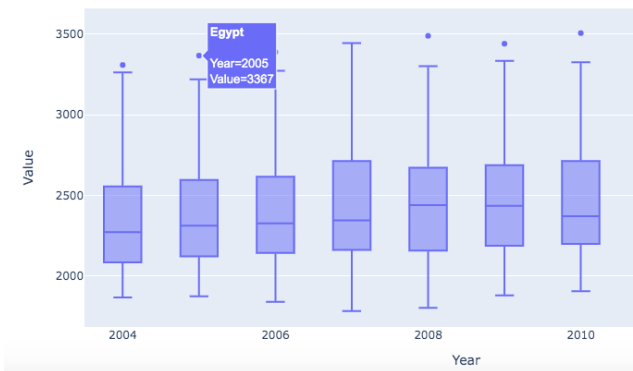
On further examination, Egypt appeared to be the outlier in each of those Eight(8) years. This suggests that Egypt has consistently outperformed the rest of Africa in food supply.

See images below:

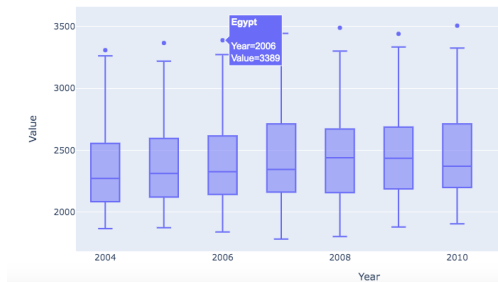
A BOX PLOT FOR FOOD SUPPLIED (2004-2013)



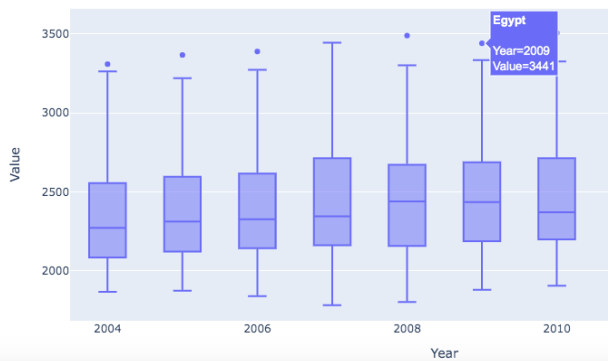
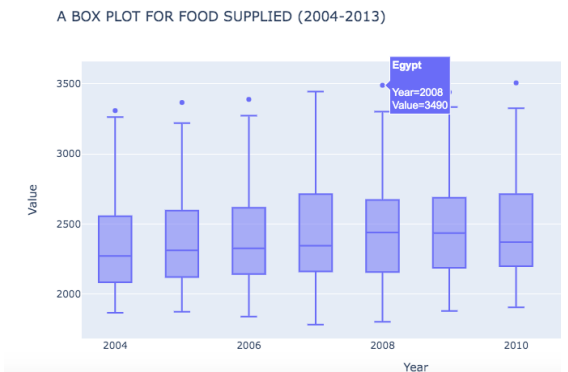
A BOX PLOT FOR FOOD SUPPLIED (2004-2013)



A BOX PLOT FOR FOOD SUPPLIED (2004-2013)



A BOX PLOT FOR FOOD SUPPLIED (2004-2013)



Water to chill...

Mean Food Production & Supply between 2004-2013

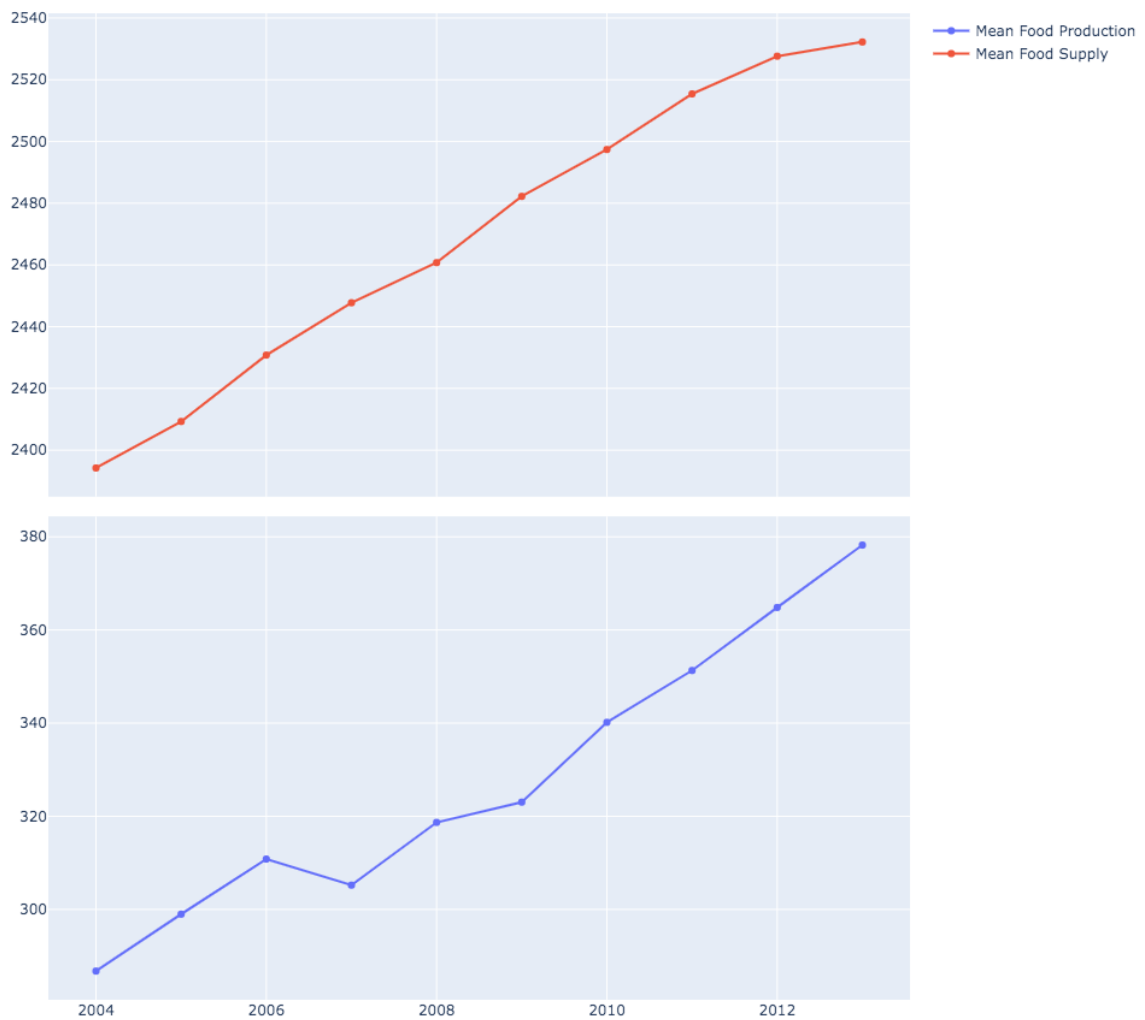


Fig: Average Food Production & Supply in Africa by Year

I conclude with the following:

- ☐ There are still more to explore from the datasets we just feasted on.
- ☐ Africa needs to ramp up its levels of food production fast.
- ☐ There needs to be more diversity in food production. That way, Africa gets to improve its economy, and become less reliant on importation.
- ☐ More African countries need to collaborate to foster easy exchange and supply of food items.
- ☐ Countries that heavily produce certain food items should utilise that luxury, and create avenues to ensure the items are marketable and exportable items.

Link to code implementation -- https://github.com/Etoic/HAMOYE_STAGE_D

Link to datasets -- [Food Production & Supply Datasets](#)