

# FOOD PRODUCTIVITY ANALYSIS IN KARAMOJA, UGANDA

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# BACKGROUND

## GENERAL OVERVIEW

Karamoja is located in north eastern Uganda bordering Turkana (in Kenya) in the east and south, and South Sudan in the north. Its one of the most remote and untouched regions in Uganda.

It covers an area of 27,528km squared, a semi-arid, culturally rich, and historically isolated region. Karamoja has agricultural activities with the most dominant crops being Sorghum and Maize. However a number of factors come into place affecting the farming activities.



# STUDY AREA

Country:Uganda

Region :Karamoja

Boundaries:Districts and subcounties

# THE PROBLEM

**Is the agricultural crop yield in Karamoja Sufficient for the entire population in the region?**

# TOOLS AND DATA USED

- Python–Was used for data preparation(cleaning and analysis)
- Tableau–Was used for creating data relationships and spatial joins and ultimately visualization.

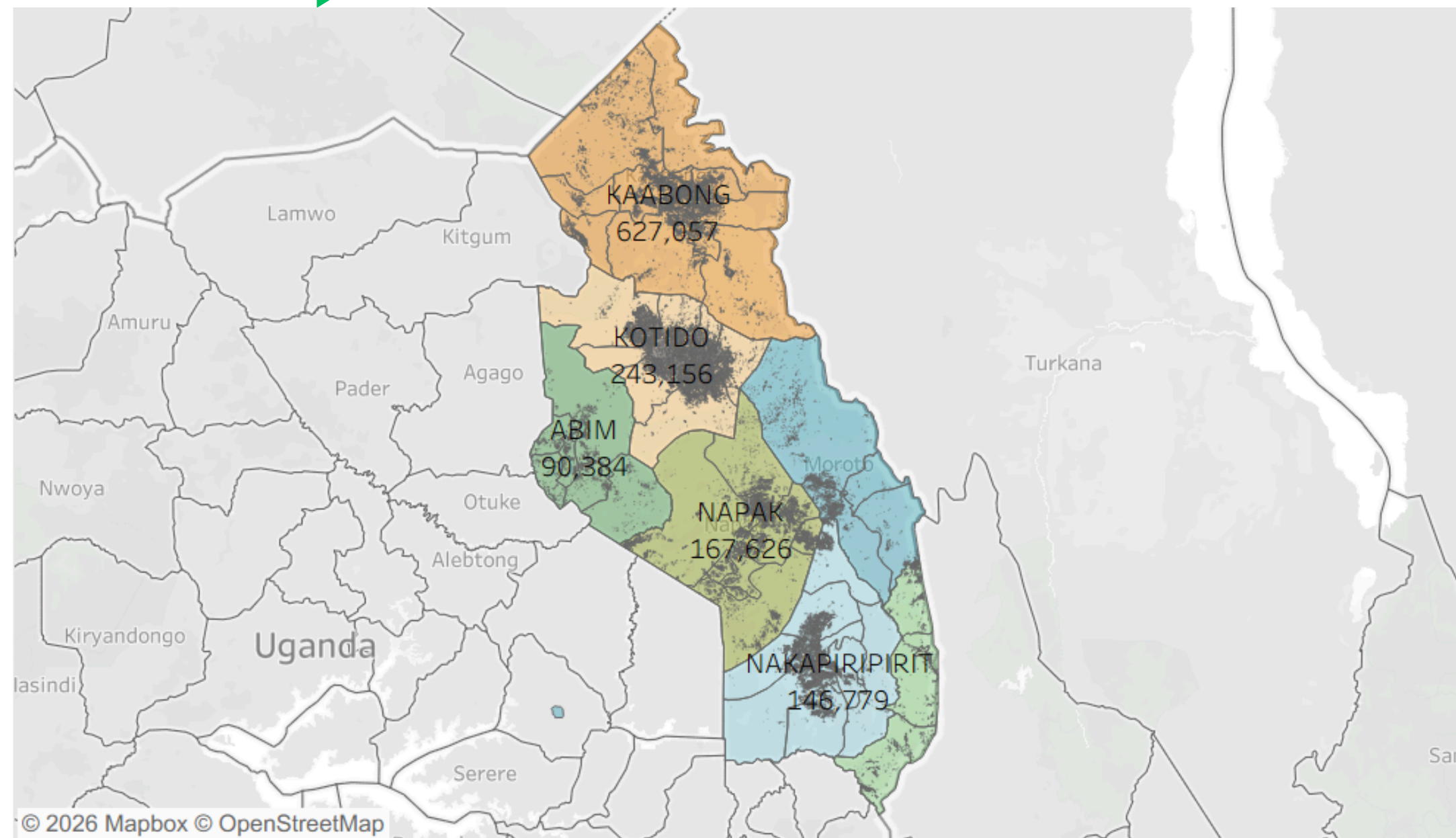
## DATA USED

- District and Subcounty Shape files.
- Maize crop area and Sorghum crop area shape files.
- Karamoja crop and population data

# OBJECTIVES

- Identify dominant crops
- Establish if Population density has influence on yield.
- Establish the most productive areas(Districts and subcounties)

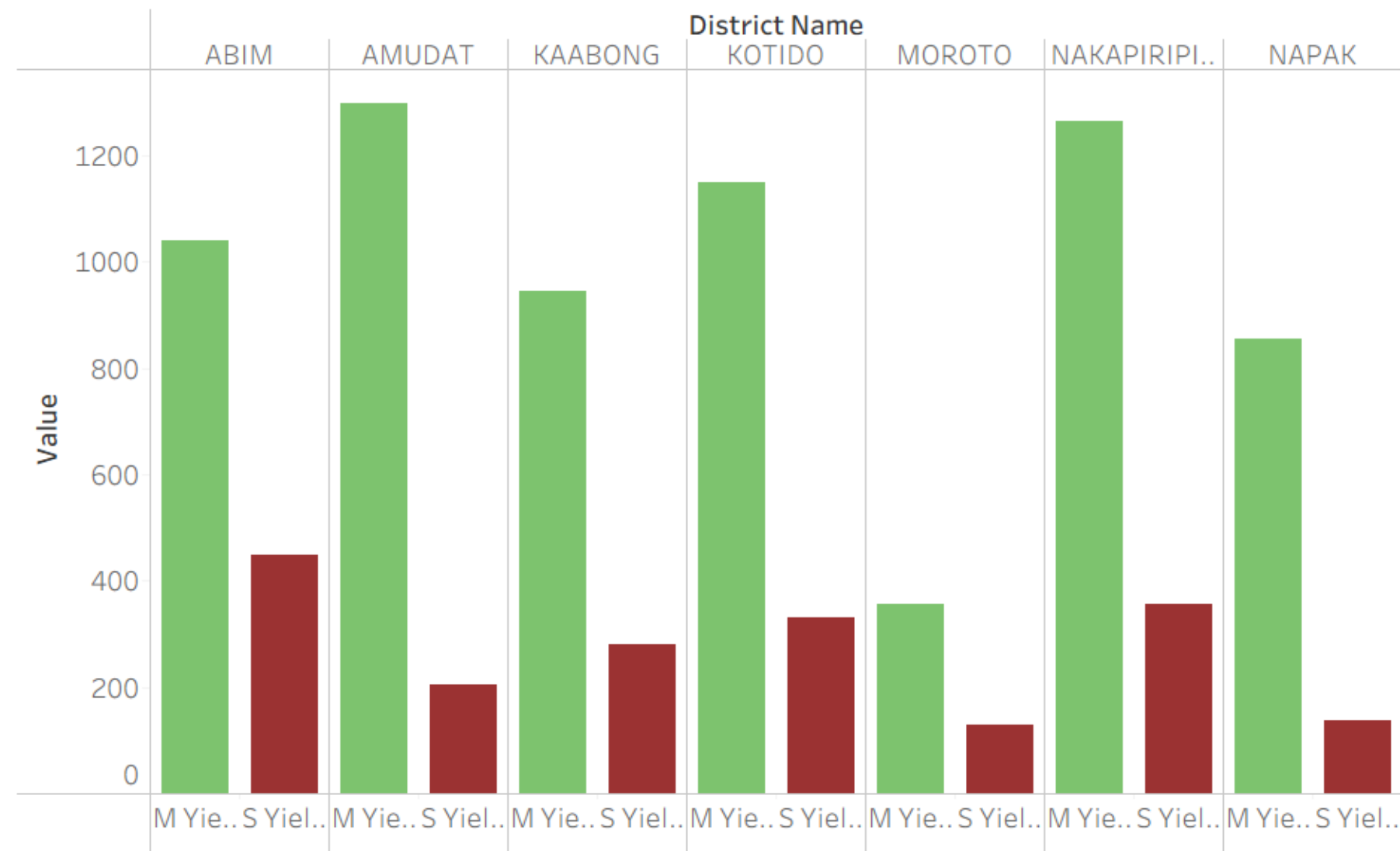
# CROP DOMINANCE BY REGION



Some subcounties are maize dominant while others are dominated by Sorghum

# YIELD COMPARISON

Maize and Sorghum yield per District



District Name

- ☒ (All)
- ☒ Null
- ☒ ABIM
- ☒ AMUDAT
- ☒ KAABONG
- ☒ KOTIDO
- ☒ MOROTO
- ☒ NAKAPIRIPIRIT
- ☒ NAPAK

Measure Names

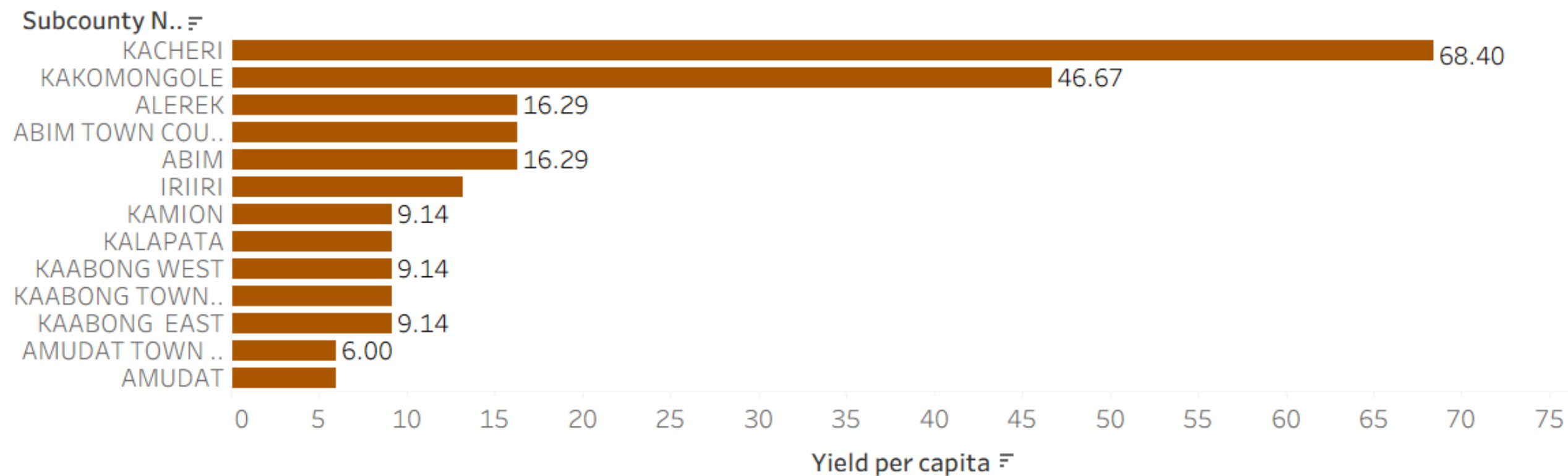
- ☒ M Yield Ha
- ☒ S Yield Ha

An interactive view of variation between maize and sorghum per District which is quite significant



# YIELD PER CAPITA

Subcounty Yield per Capita(Top 13)



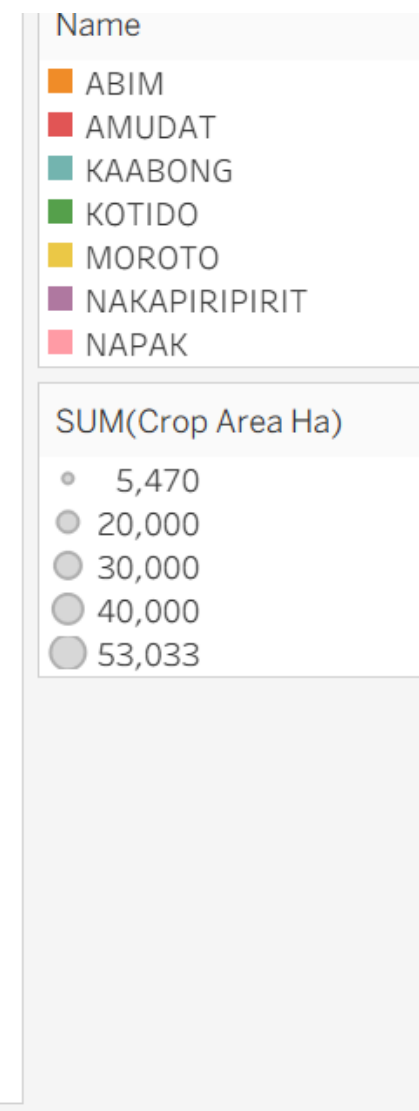
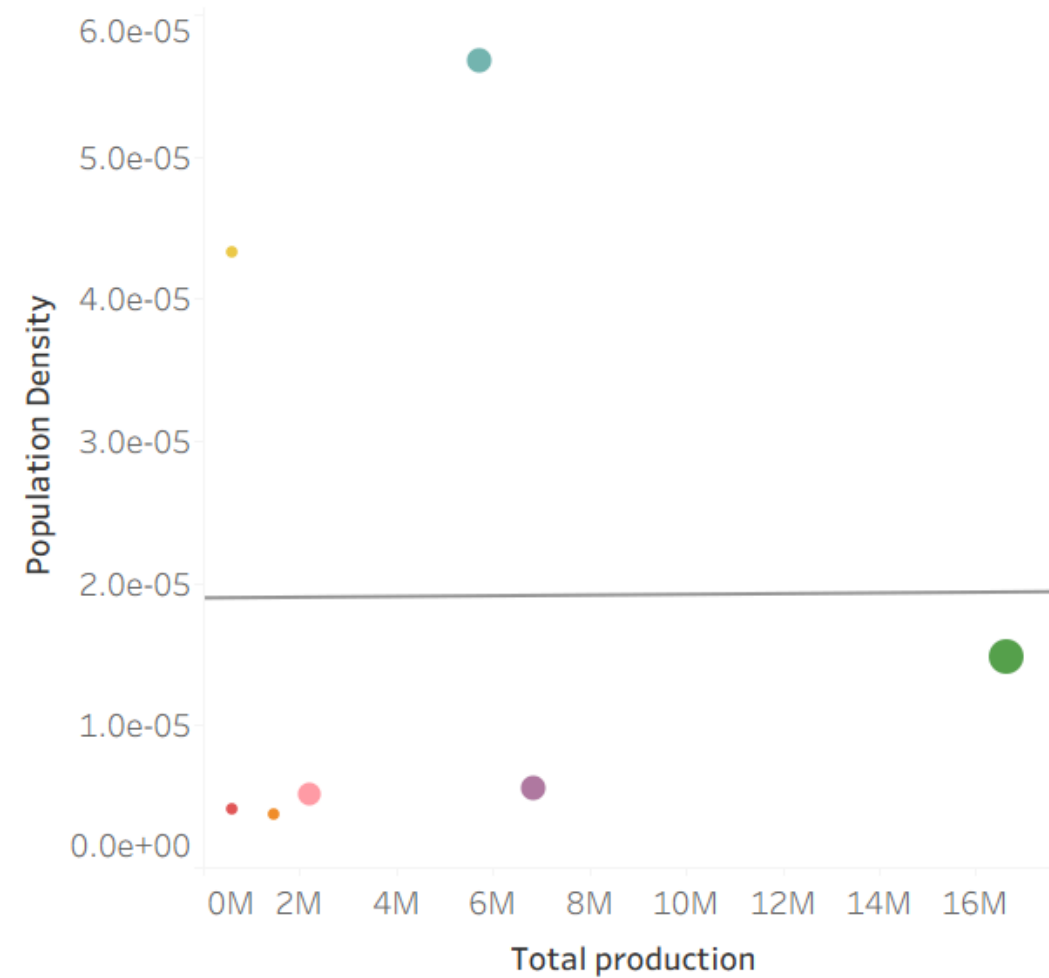
District Name

- ☒ (All)
- ☒ ABIM
- ☒ AMUDAT
- ☒ KAABONG
- ☒ KOTIDO
- ☒ MOROTO
- ☒ NAKAPIRIPIT
- ☒ NAPAK

An interactive view of the top 13 performing subcounties in terms of food security, Kacheri being the highest.

# POPULATION DENSITY VERSUS PRODUCTION

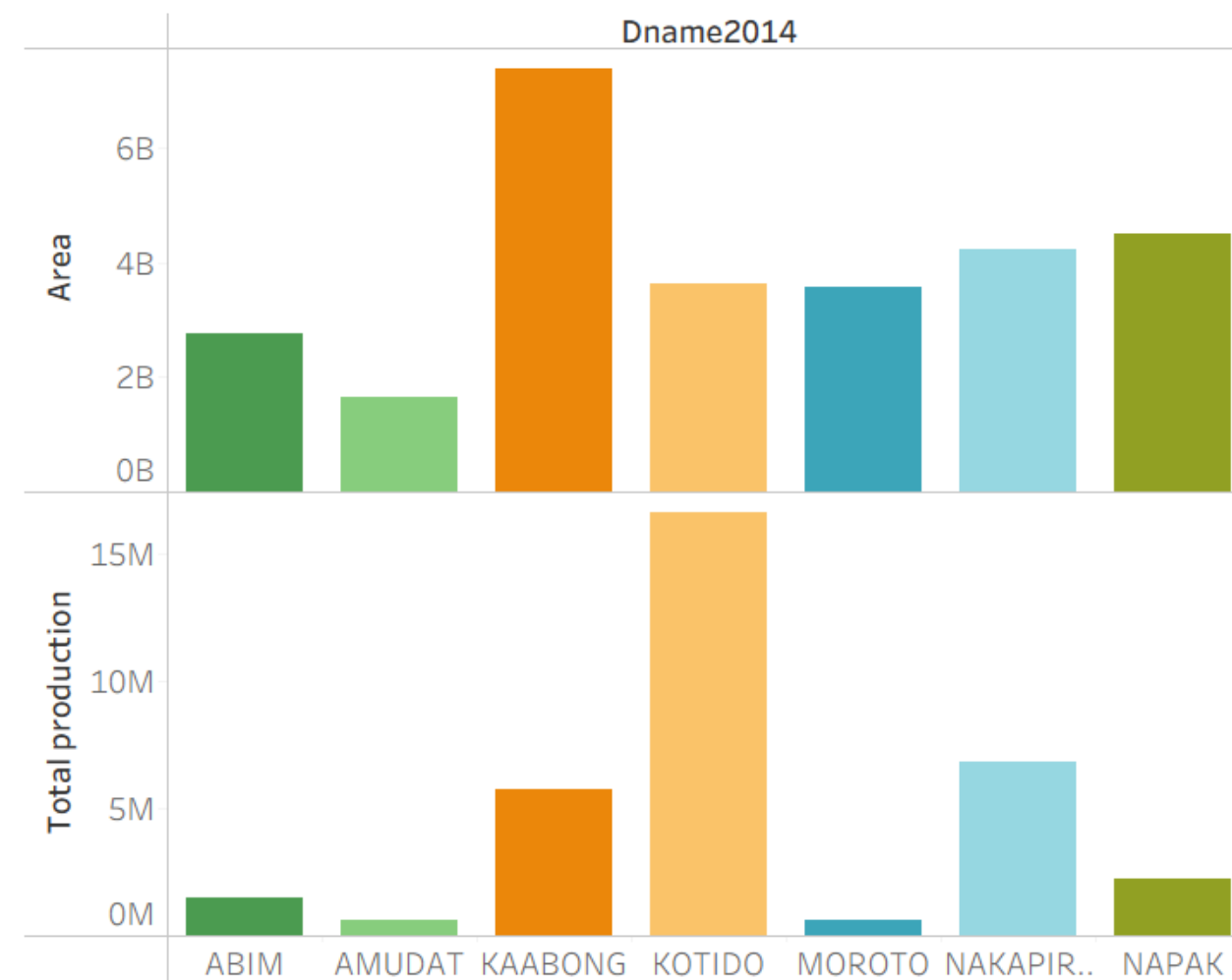
Population Density versus Production



There is no specific variation of population density with productivity .

# POPULATION DENSITY VERSUS PRODUCTION

Total Production and Total Area per District



District Name

(All)

District Name

- ABIM
- AMUDAT
- KAABONG
- KOTIDO
- MOROTO
- NAKAPIRIPIT
- NAPAK

Some regions with large area have lower production while others with smaller areas have high production

# FINDINGS

- Crop dominance is not even across the Karamoja regions. Some specialize in maize while others in sorghum.
- Production is not dependant on the land size.
- Agricultural yield is not relative to population, It varies per region.
- Production per capita varies with some counties showing food security while others show signs of insecurity

# RECOMMENDATIONS

- Provide agro support to regions with low yield per capita
- Promote diversification in areas where one crop is doing so well to create a balance
- Plan for better farming practices forums to enlighten farmers for better yields
- Invest in irrigation and better seed qualities to aid in improved yield.

# CONCLUSION

There is inconsistency in agricultural production in the Karamoja subcounties. Poorly performing regions need aids or any relevant intervention like Agricultural best practices to boost their food security and improve the overall production.





Presented by Adelaide Phouscar Achieng.