

PROJECT 2: FOOD SECURITY ANALYSIS IN KARAMOJA REGION.

By: Carol Maina

INTRODUCTION

- . Karamoja is the most food-insecure region of Uganda.
- . NGOs provide technical support as well as farm inputs to the farmers. Often relying on local sources of information.
- . Dalberg Data Insights (DDI) are developing a new monitoring tool to measure the yield of the two main staple crops of the region (i.e. sorghum and maize) based on satellite images.
- . The agri-tech team ran the model for the 2017 crop season.
- . I have developed an interactive visualization tool of the results for this first crop season

OBJECTIVES

- To find out how the crops performed in the area.
- To develop a tool to visualize yields of the crops.
- To perform analysis to know which crop performed better.
- To understand reasons as to why a crop performed better and be able to advise accordingly.

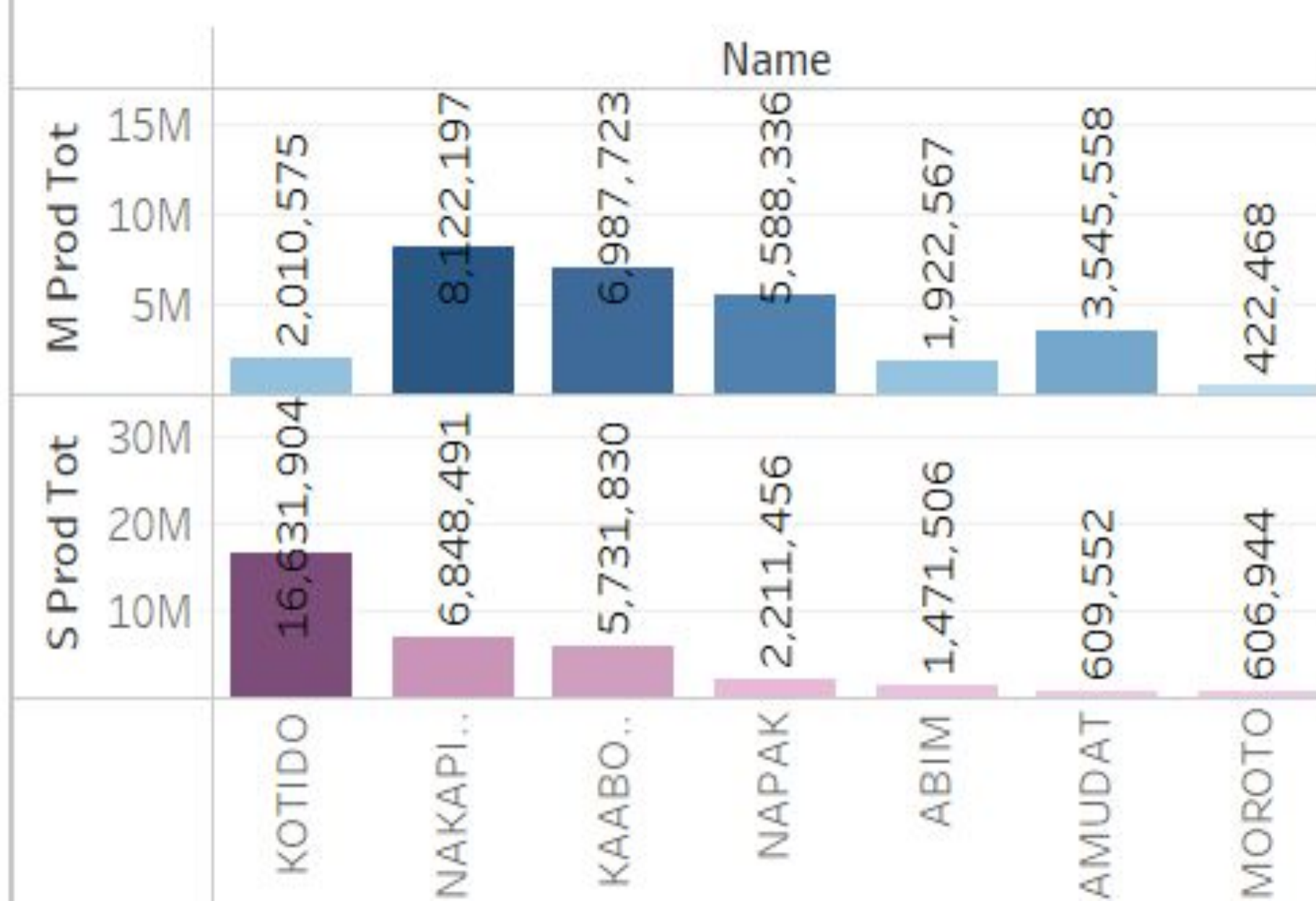
RESEARCH QUESTIONS

- what is the total productivity of sorghum and maize in the districts (Kg)?
- What was the area size allocated to maize and sorghum farming?
- What is the district size versus their productivity.

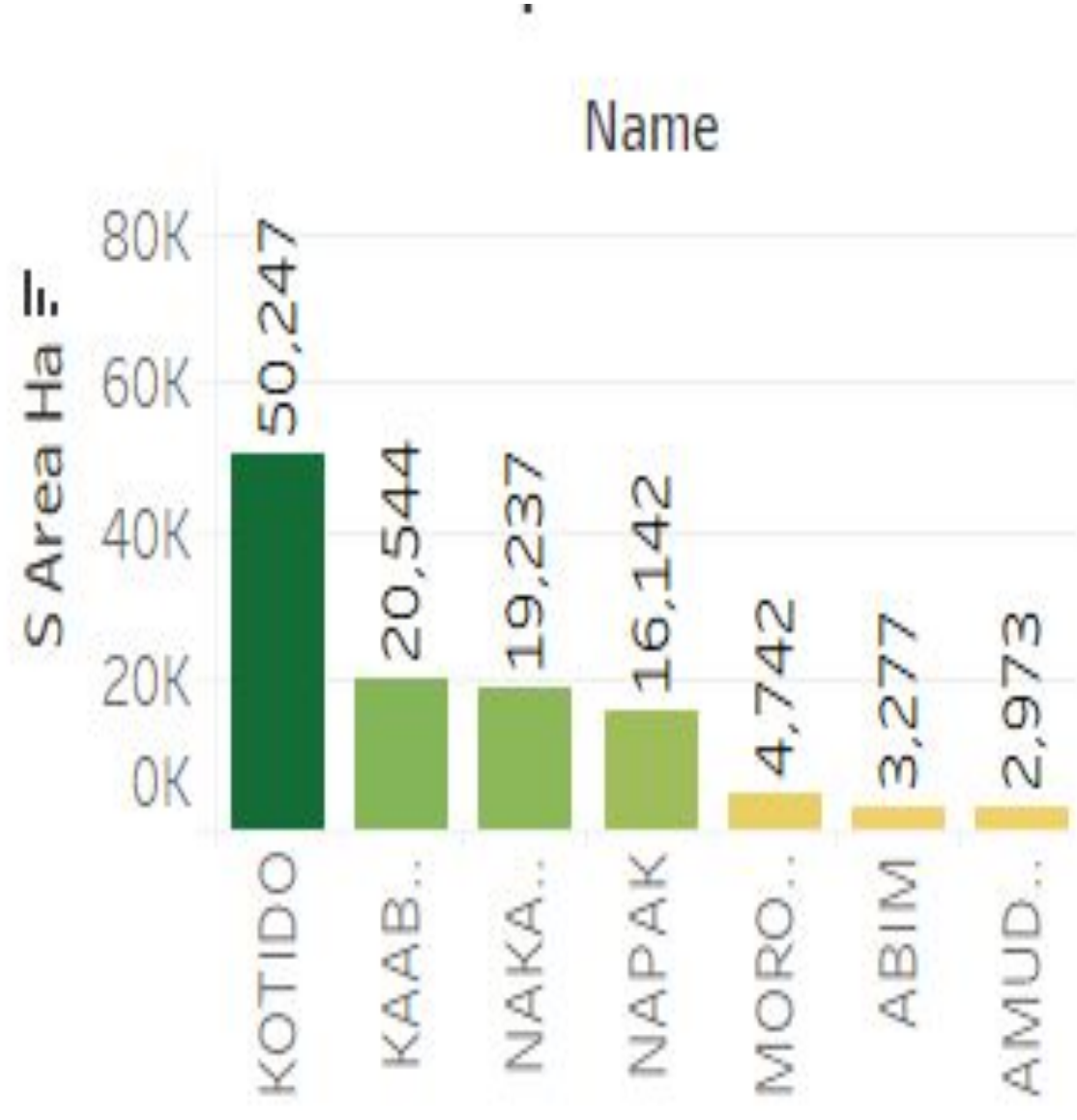
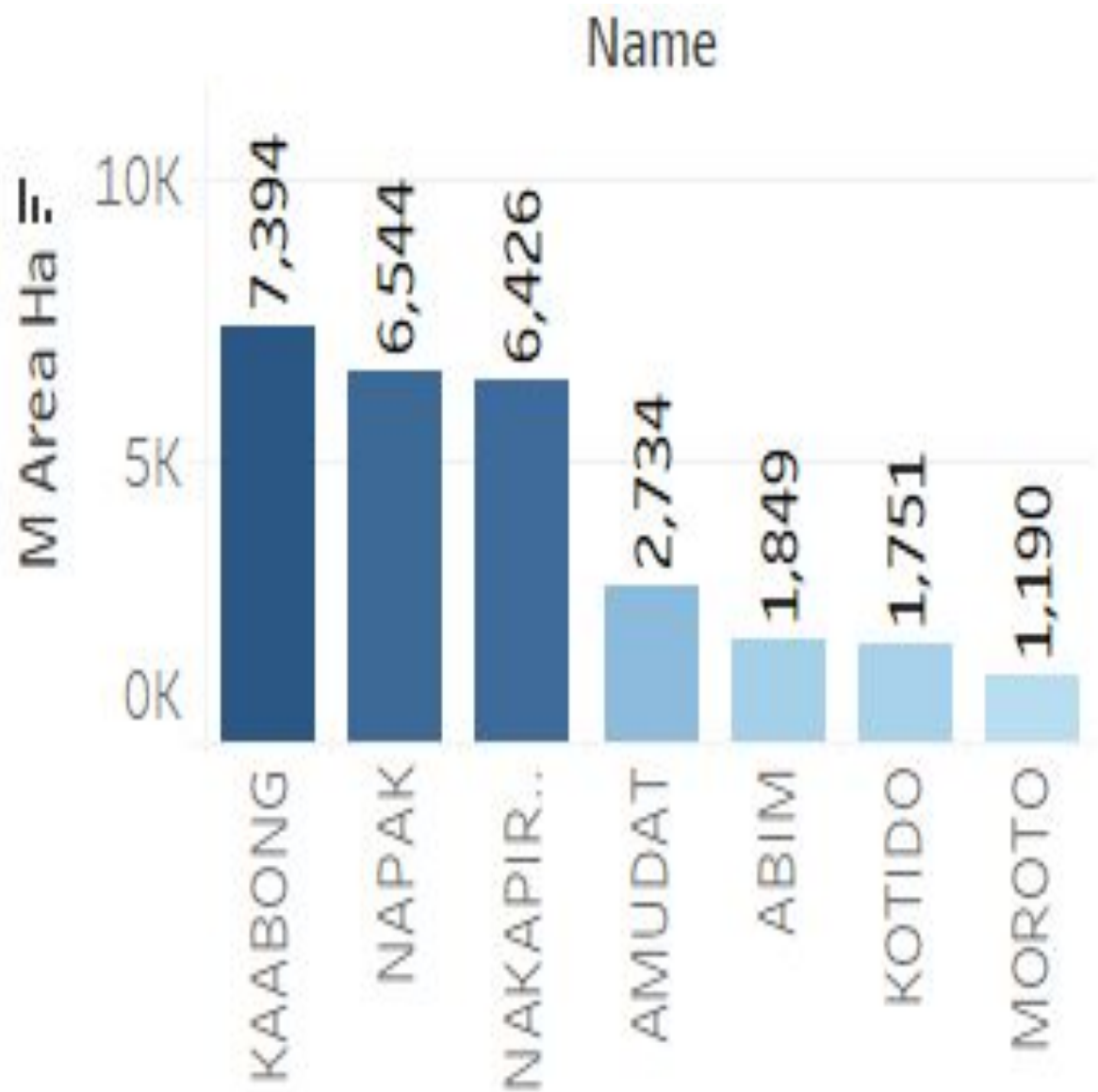
Datasources:

- . Uganda administrative boundaries
- . Satellite data.
- . Crop yield estimates from 2017.

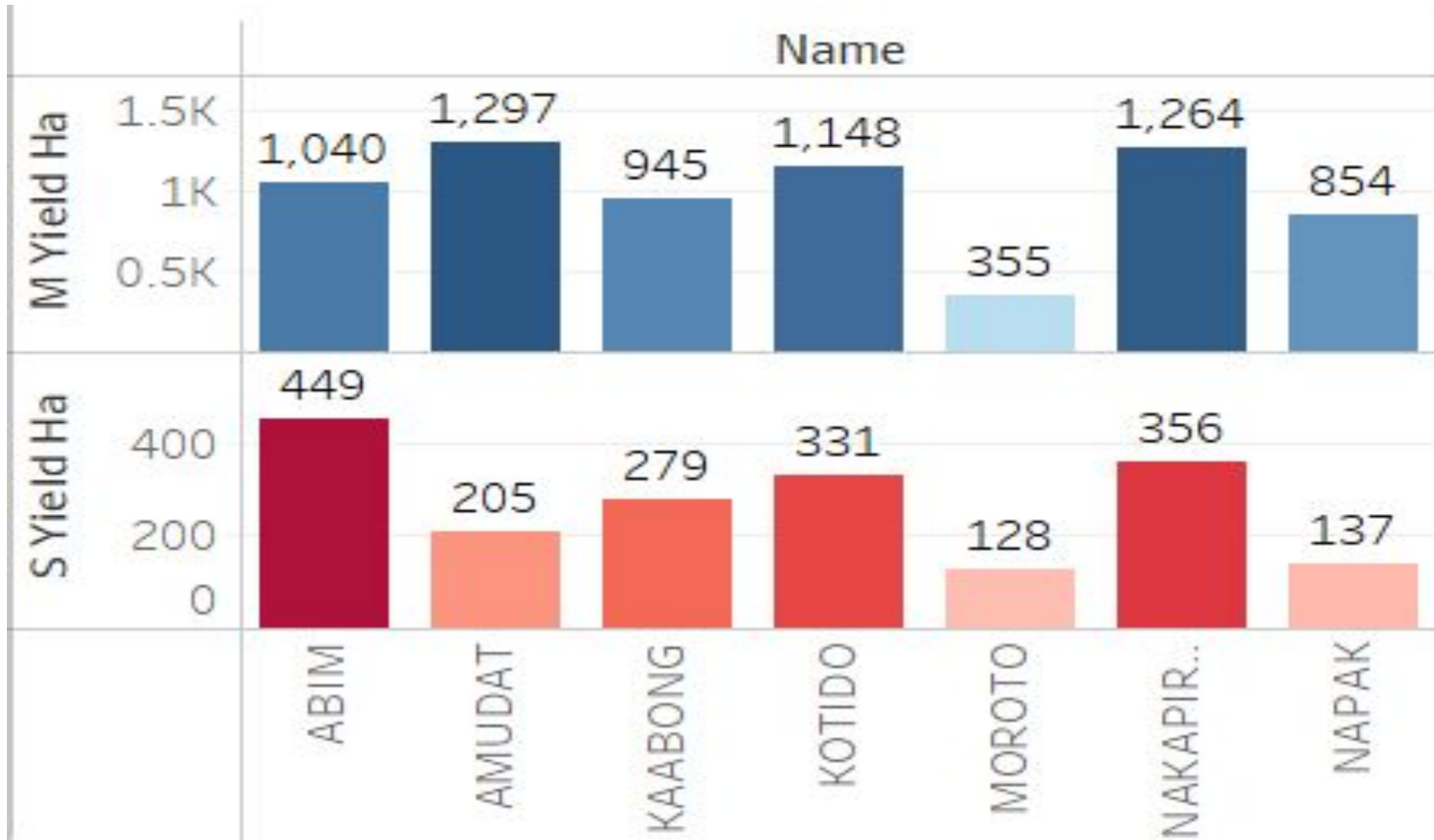
Total production of maize and sorghum in Kg per district



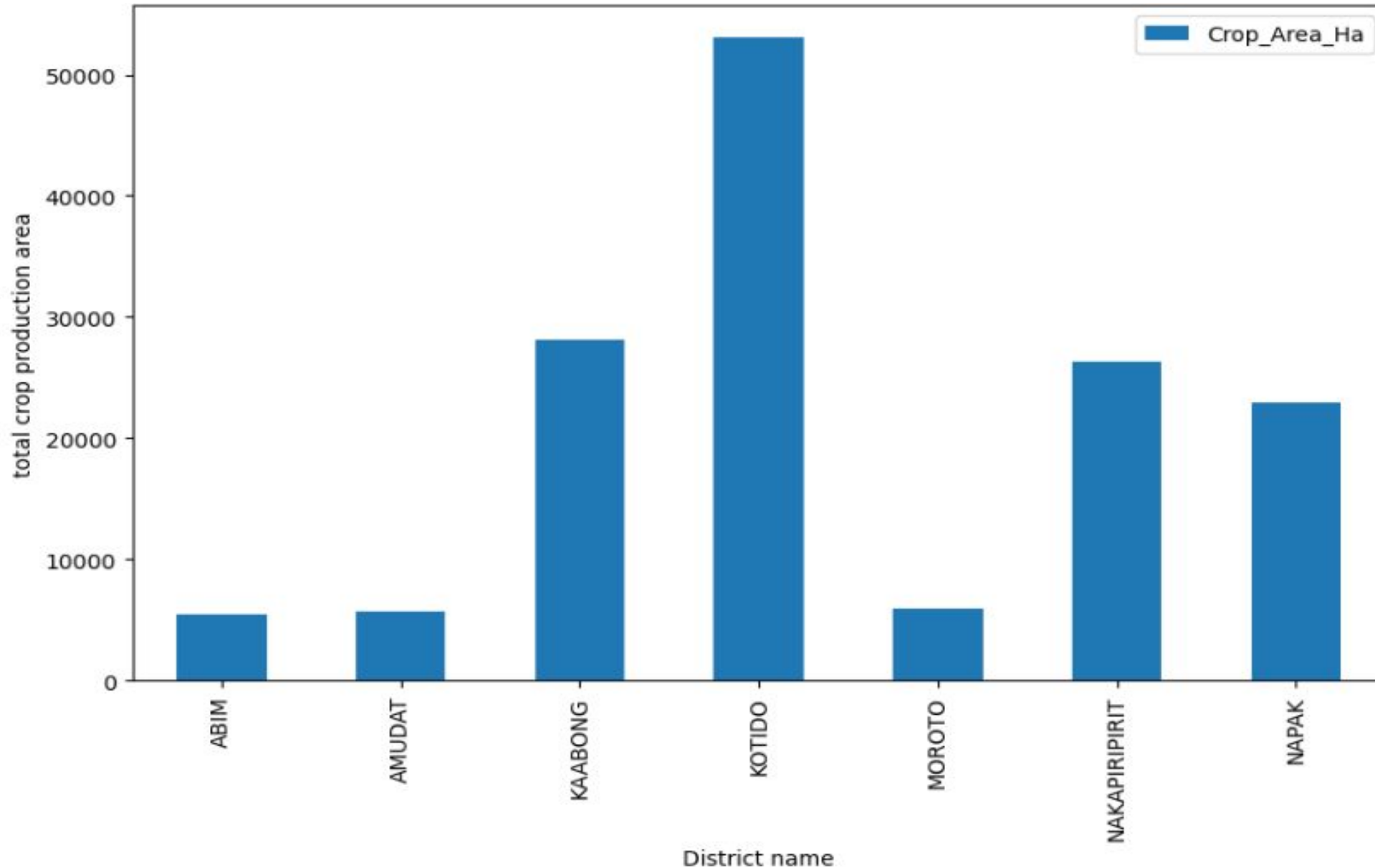
Maize and Sorghum production areas in Ha per District



Average yield of Maize and Sorghum in kg/Ha per district



Total area used in crop production per District



Conclusion.

- . The low productivity level due to intense droughts as well as pest and disease outbreaks is intensifying food insecurity in Karamoja region
- . Improved farming support, crop diversification, data-driven interventions may enhance resilience and ensure adequate food production and availability.

Recommendations:

- Prioritize intervention in low-yield areas.
- Allocate resources effectively (inputs, training, financial aid).
- Monitor trends over multiple seasons.
- Diversify crops and do weather analysis.

Future work:

.I would be interested to analyse the Karamoja region data after several seasons of the recommendations being implemented to compare production.

Appreciation

. I sincerely appreciate you for your time and i hope the analysis and recommendations will go a long way in improving food sustainability in Karamoja region.

Thank you.

