

— A Data Driven Strategy for Food Security in Karamoja.

Group 11

Team members

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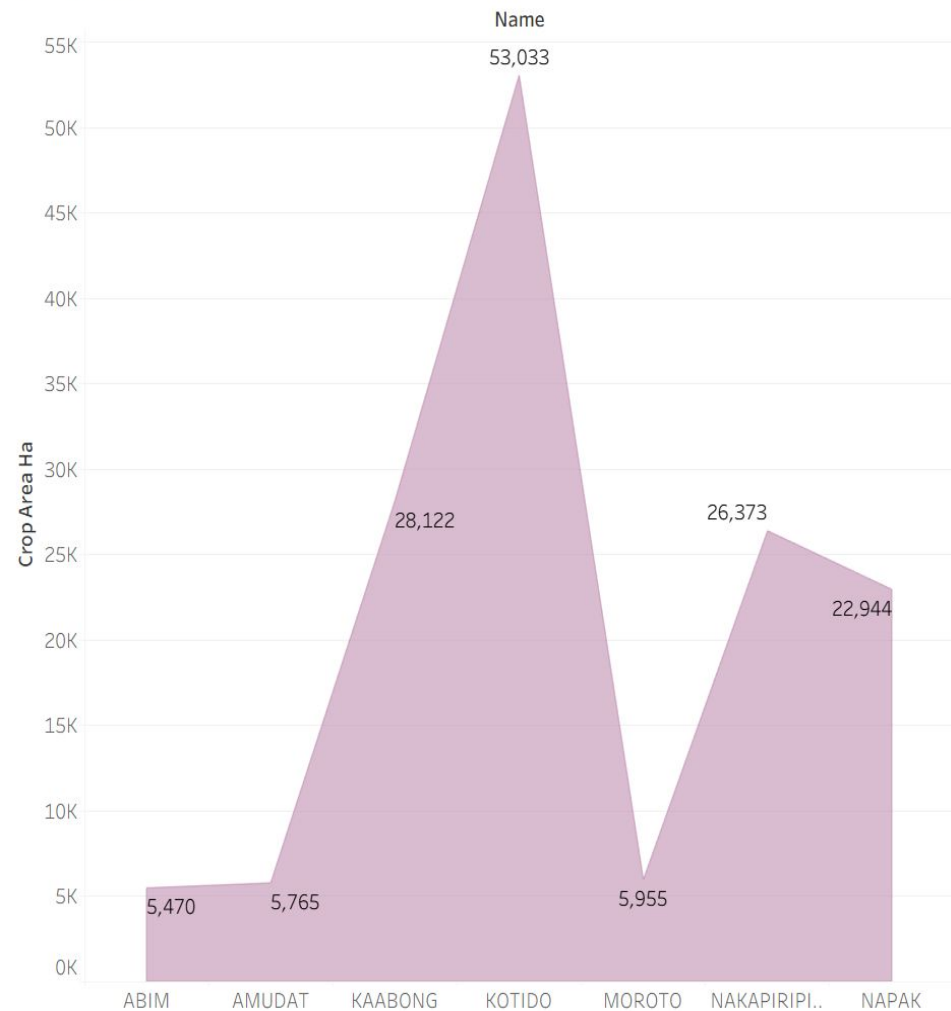
Joseph Kimotho Kimana

Our Mission and Our Challenge :

Purpose : to present key insights from the crop season analysis in a clear and interactive way, supporting data-driven decision-making for future food security initiatives.

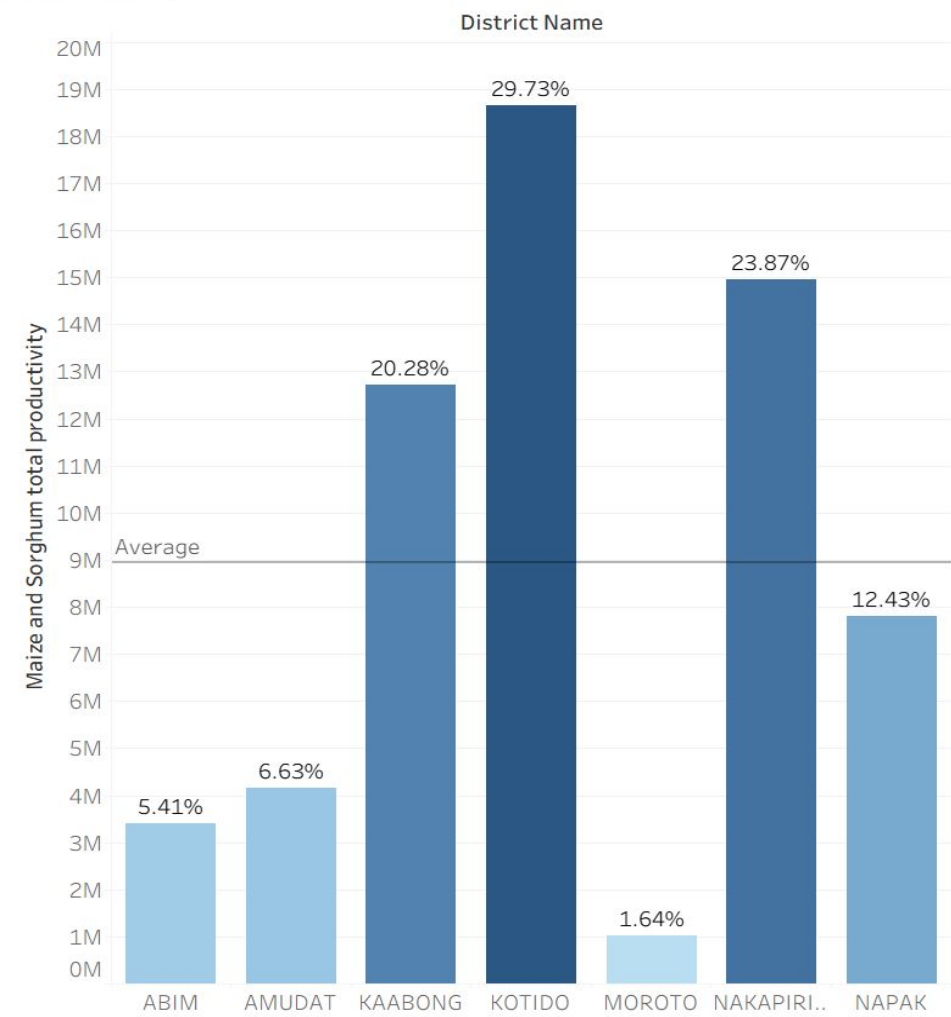
Core problem : Inefficiency caused by blindness on where to send aid, what crops to promote and which farmers to support etc hence wasted resources.

Area chart



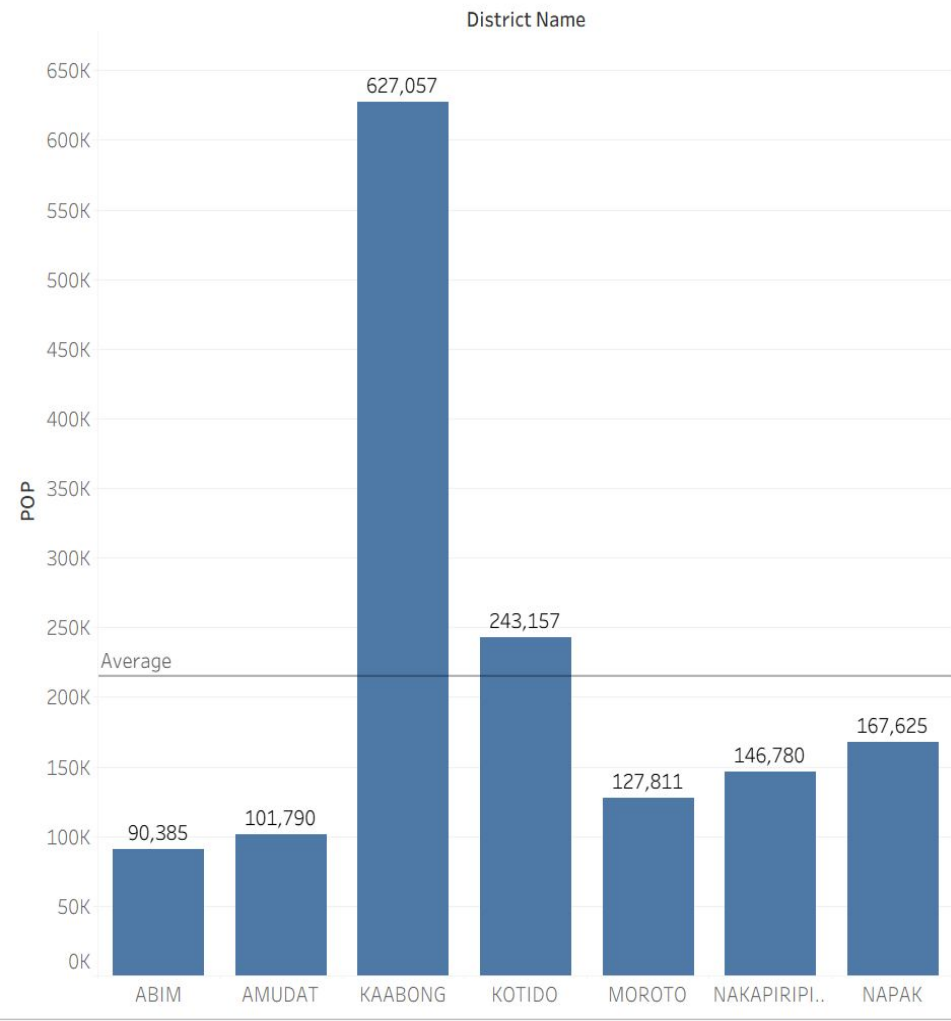
Kotido has the largest cultivated land area by far as compared to Moroto which has the smallest.

Bar chart_



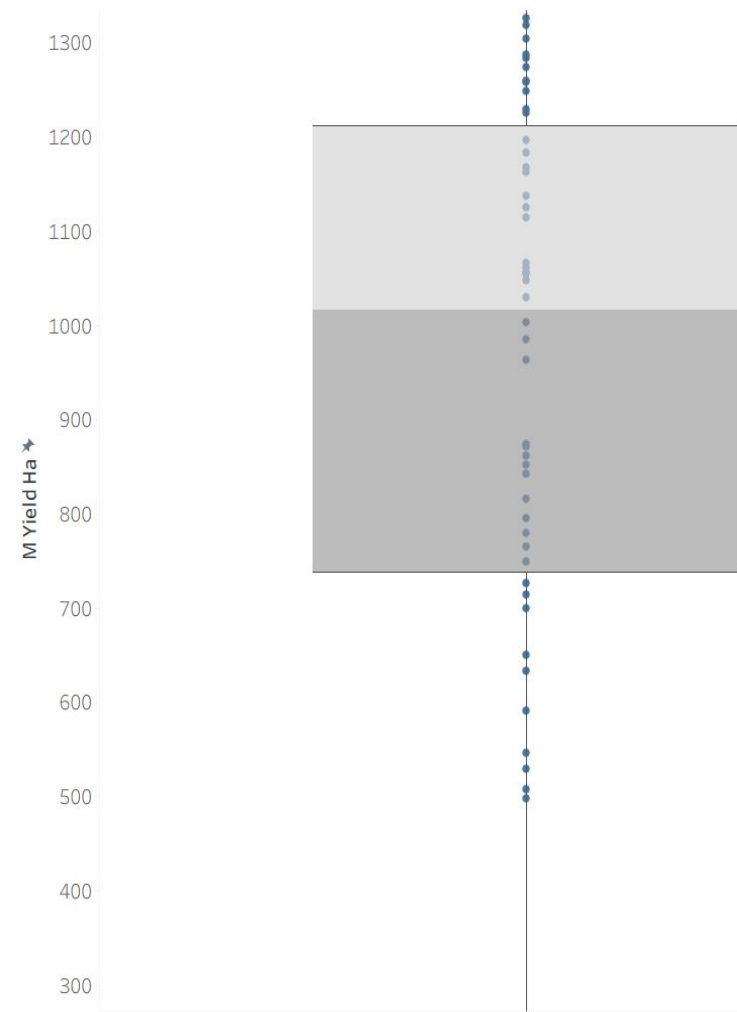
Kotido produces the vast majority of the region's sorghum while Moroto's output is very low

Bar chart

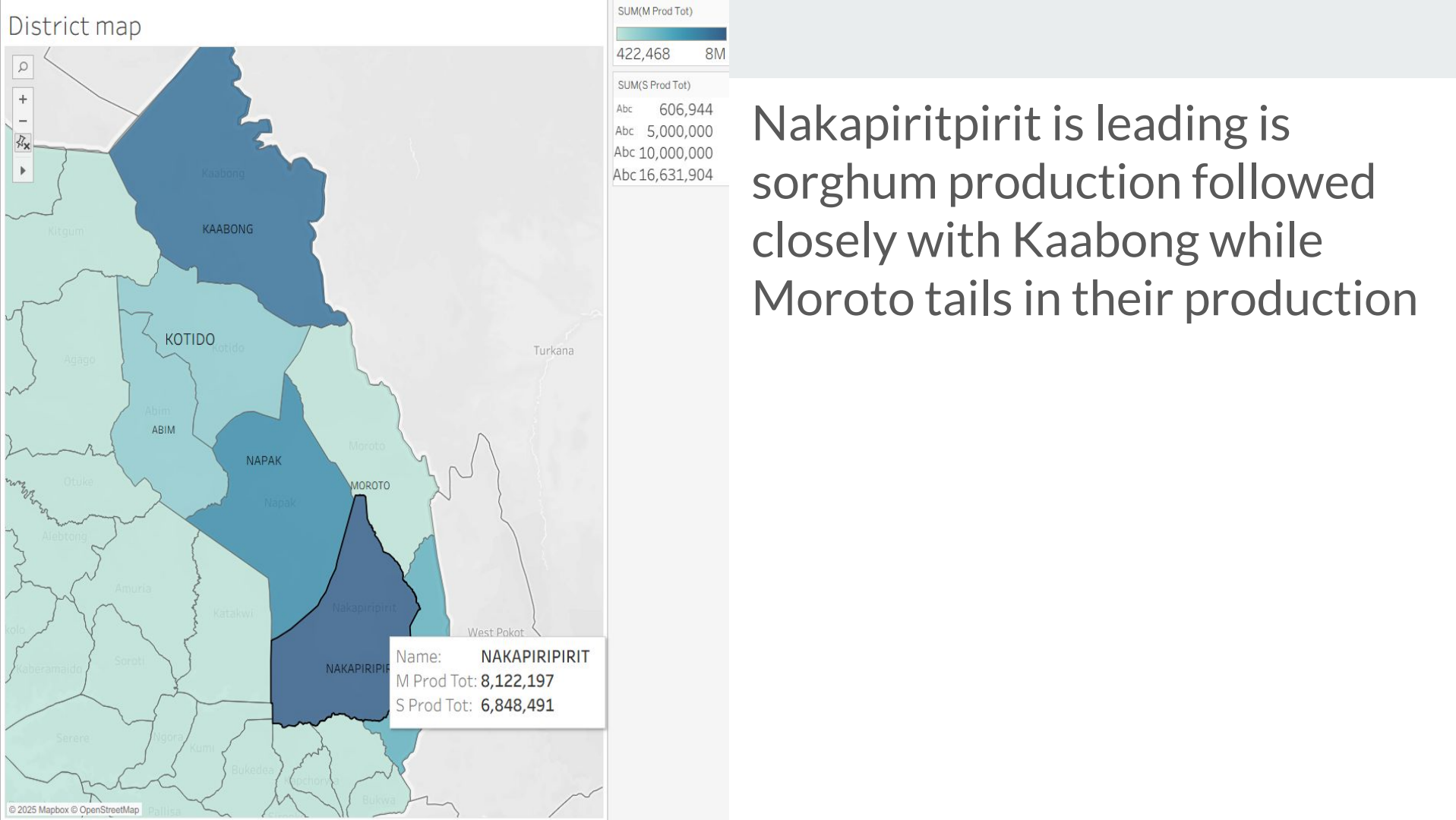


Kaabong has the most people to feed yet produces moderately. Moroto has large population compared to its low production.

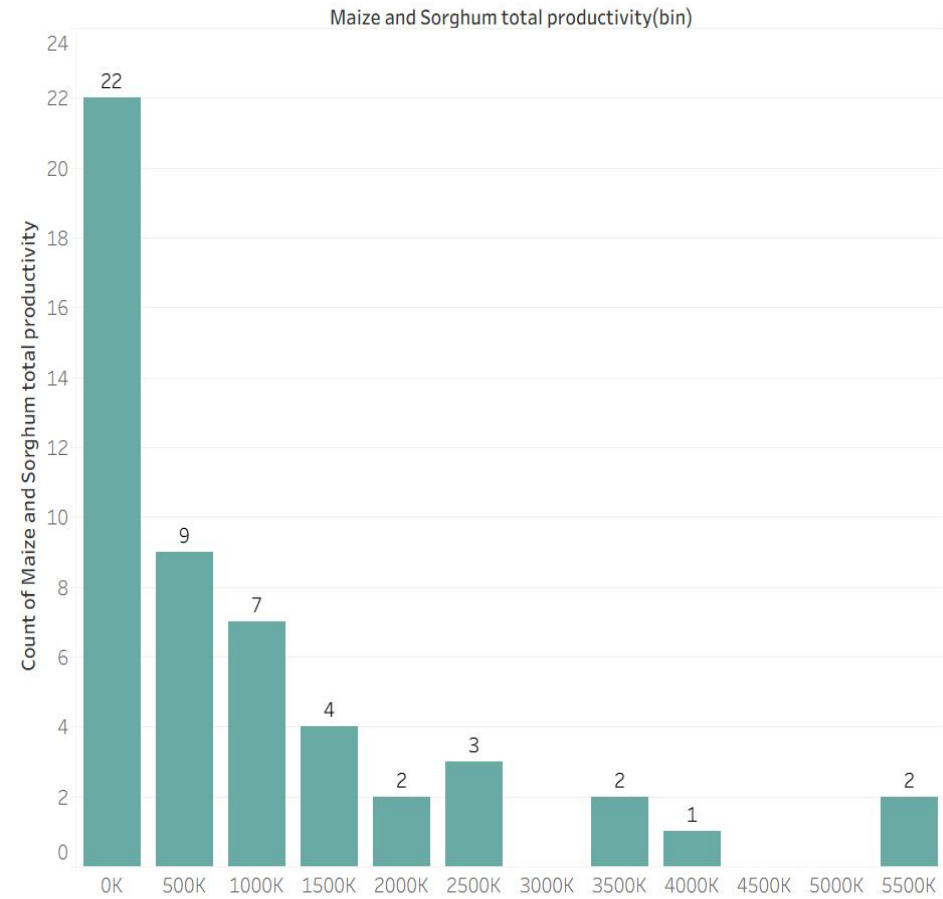
Box and whisker



Maize has high potential but is highly inconsistent with many areas struggling : Success depends on applying what works in the top districts everywhere.



Histogram

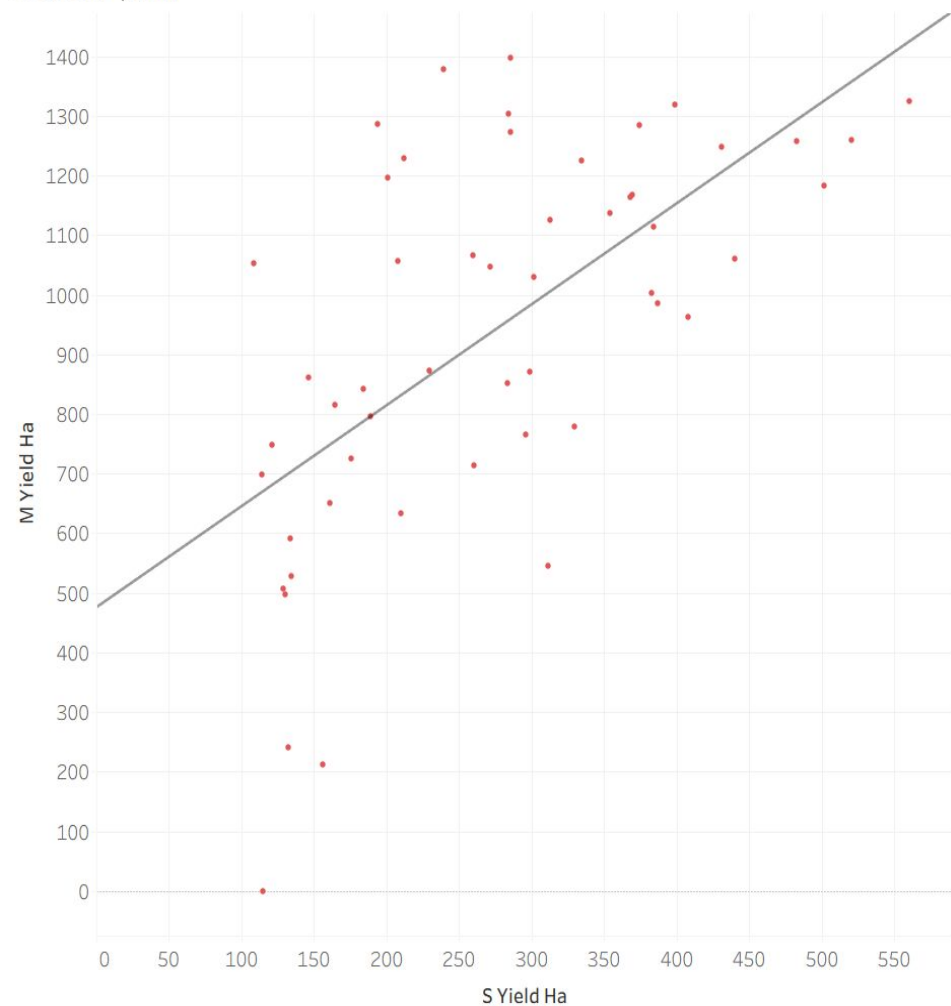


Caption

Count of Maize and Sorghum total productivity for each Maize and Sorghum total productivity(bin). The data is filtered on District Name, which keeps 7 of 7 members. The view is filtered on count of Maize and Sorghum total

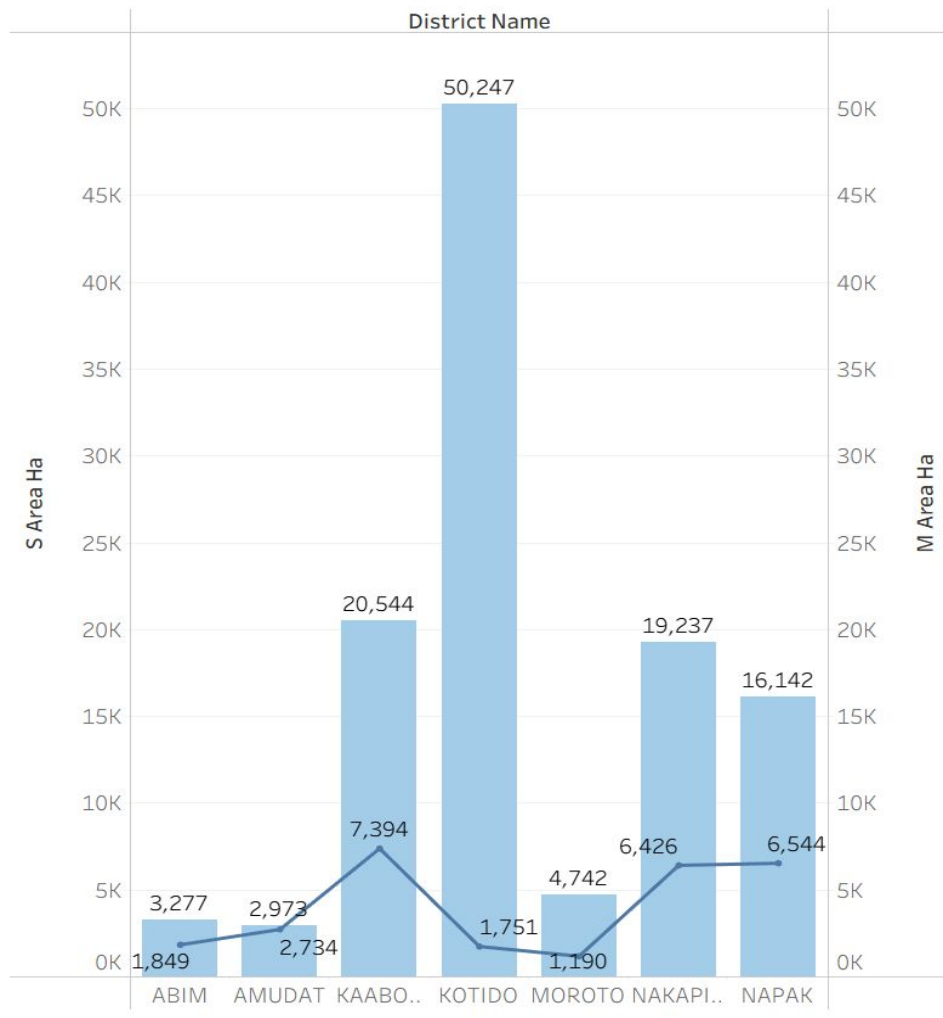
Most districts portray very little production of sorghum and maize with very few producing highly.

Scatter plot



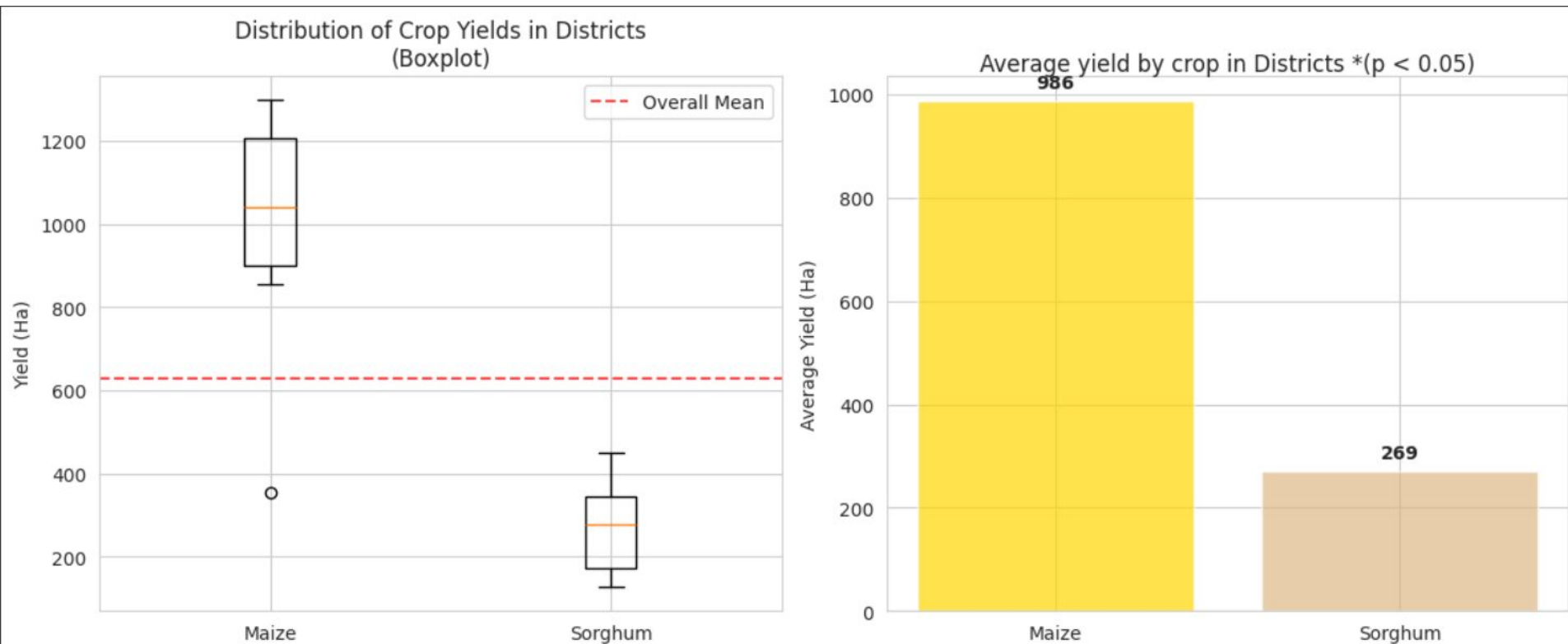
There's a positive correlation
output between maize and
sorghum yield hence high
production potential

trend lines

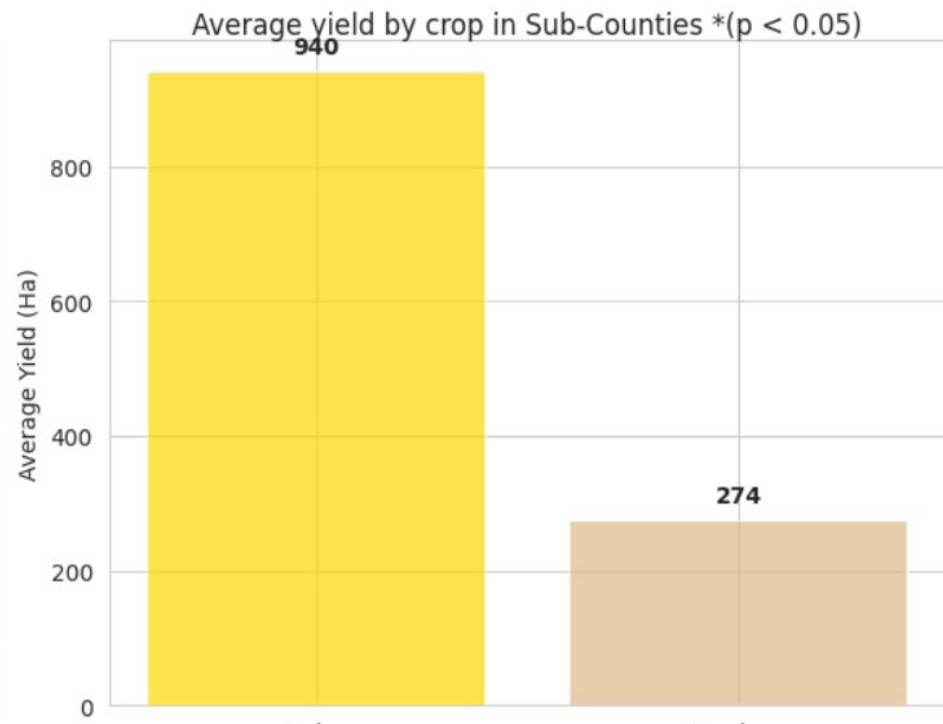
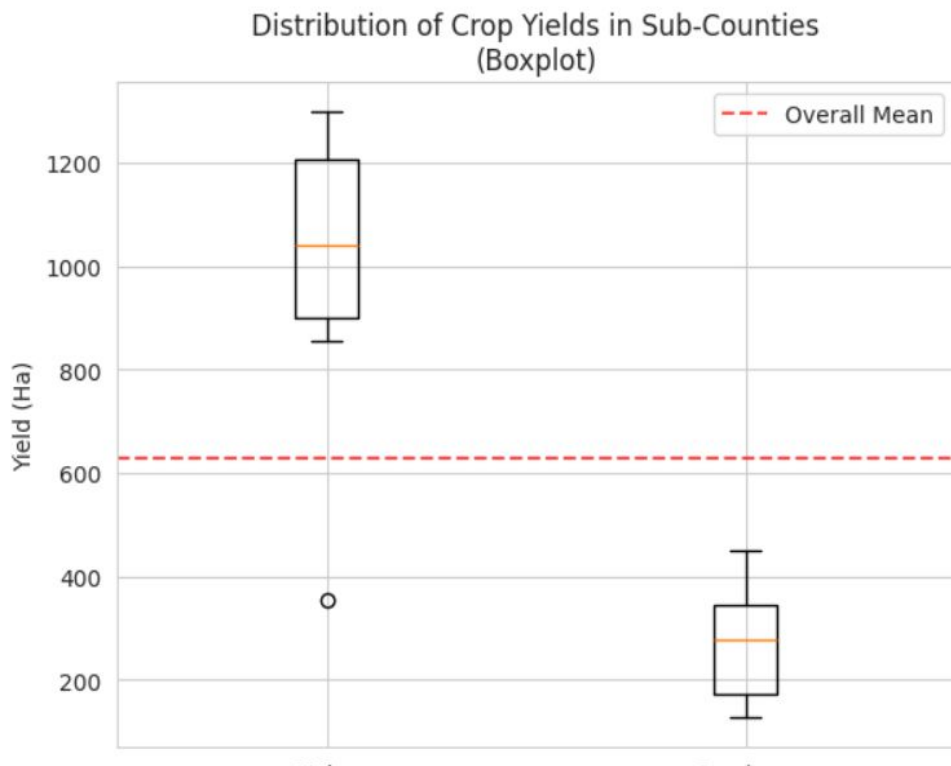


Kotido farms vast areas of land while the others eg Abim and Amudat farm very little in comparison.

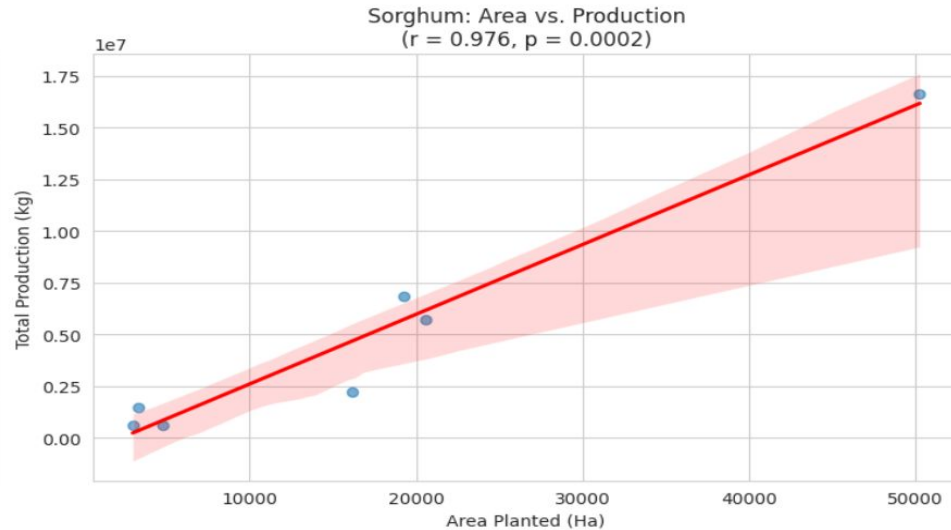
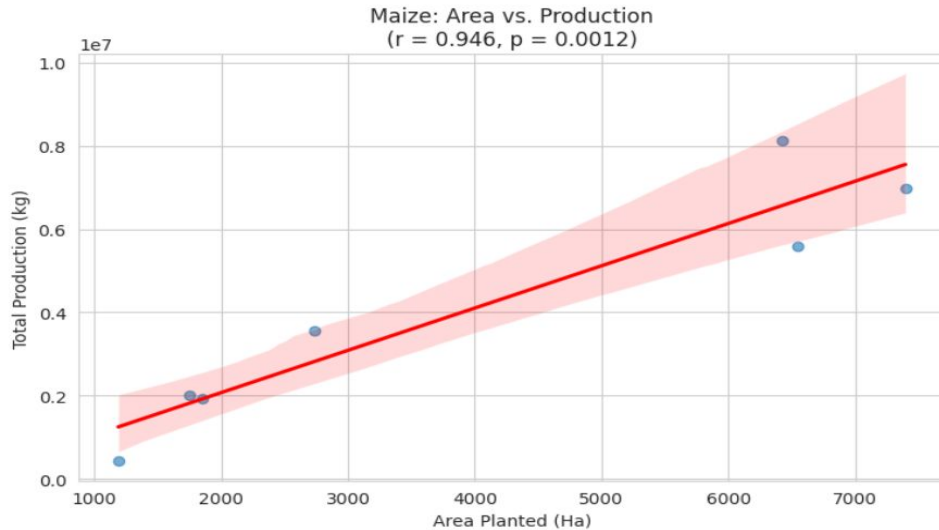
Maize is a higher-yielding crop under the current conditions in the districts.



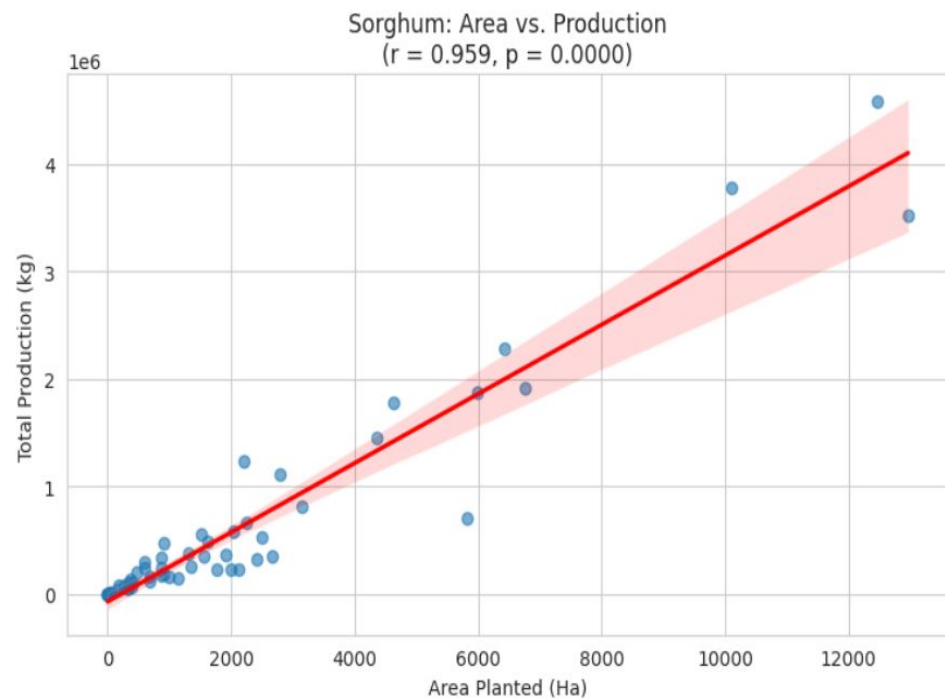
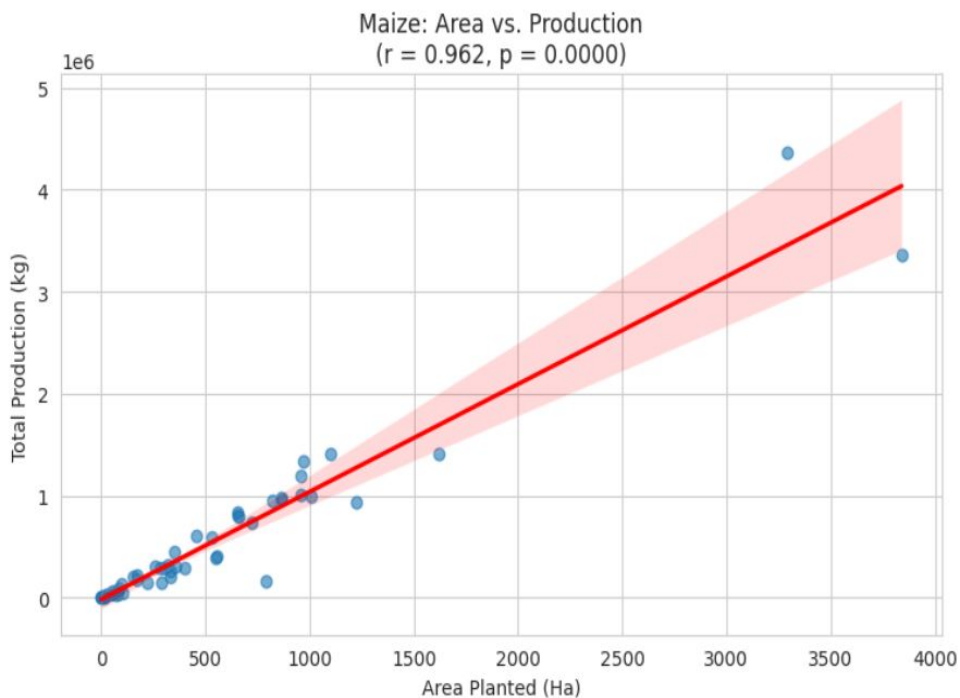
Maize is a higher-yielding crop under the current conditions in the sub counties.



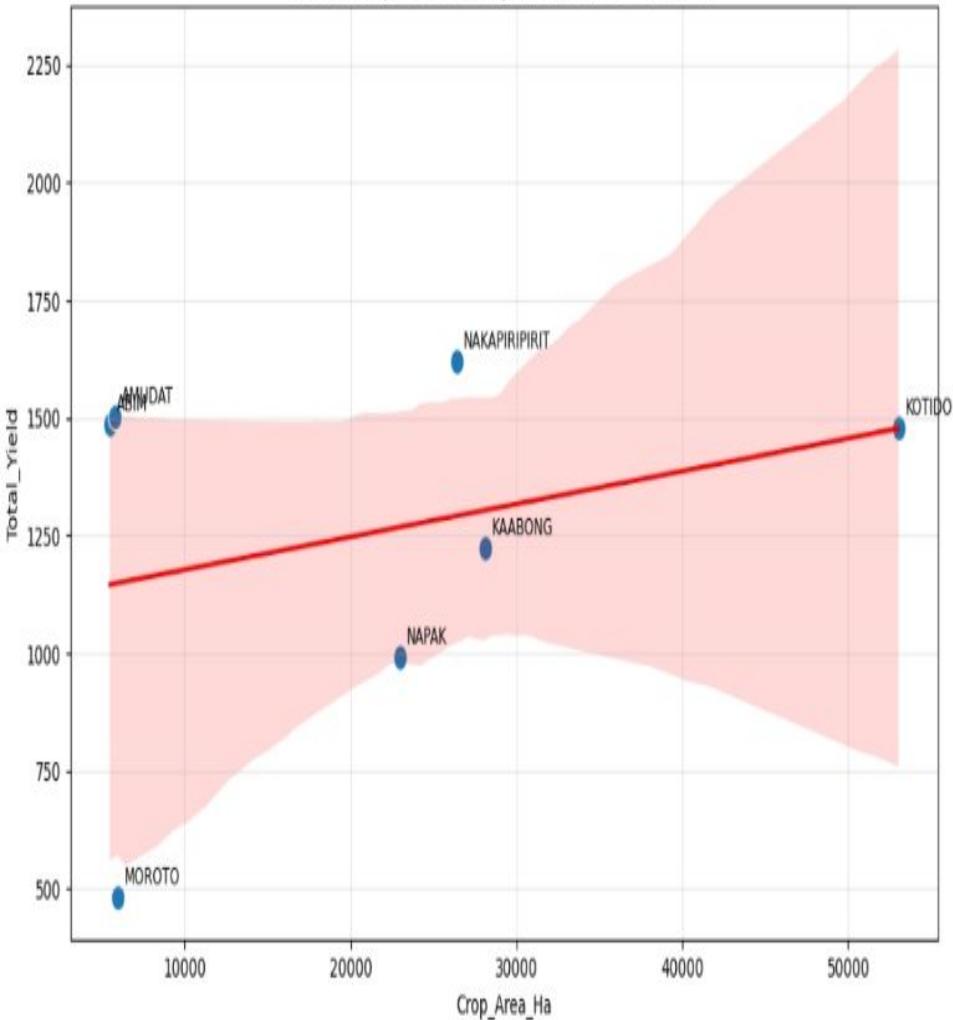
From the hypothesis test in the figure below, we see a strong positive correlation between area planted and total production of both maize and sorghum in the districts.



From the hypothesis test in the figure below, we see a strong positive correlation between area planted and total production of both maize and sorghum in the sub-counties.



Relationship between Crop Area (ha) and Total Yield



From the hypothesis test in the figure to the left, a weak positive correlation is observed which means an increase in crop area does not necessarily mean an increase in crop yields.

CONCLUSIONS AND RECOMMENDATIONS

- 1) When focusing on Yields, we recommend planting more of Maize compared to Sorghum.
- 2) To increase production, the organisation should focus utilise the large uncultivated land in Kotido district.
- 3) In an instance where you want to increase total production of maize and sorghum, we recommend increasing the total area of plantation.

Future Work

The current data is a snapshot of 2017

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Thank you