

Data Understanding

In the downloaded zip file, there were 2 main folders containing data:

1. Shapefiles

- Boundaries of Uganda Subcounties
- Boundaries of Uganda Districts
- Crop Type Map for Sorghum (i.e. position of the Sorghum fields)
- Crop Type Map for Maize

2. Tables

- Yield and Population per Sub County
 - POP: total population for the sub county
 - S_Yield_Ha: average yield for sorghum for the sub county (Kg/Ha)
 - M_Yield_Ha: average yield for maize for the sub county (Kg/Ha)
 - Crop_Area_Ha: total crop area for the sub county (Ha)
 - S_Area_Ha: total sorghum crop area for the sub county (Ha)
 - M_Area_Ha: total maize crop area for the sub county (Ha)
 - S_Prod_Tot: total productivity for the sorghum for the sub county (Kg)
 - M_Prod_Tot: total productivity for the maize for the sub county (Kg)
- Yield and Population per District

Notes:

The district yield and population table is smaller than the sub county yield and population table, should attempt a join or relationship

Tableau Public - Book2

File Data Window Help

Connections [Add](#)

- Uganda_Karam...d_Population Text file
- Uganda_Karam...d_Population Text file

Files

- ☐ Use Data Interpreter
Data Interpreter might be able to clean your Text file workbook.
- Uganda_Karam...opulation.csv
- Uganda_Karam...opulation.csv

New Union

Uganda_K... — Uganda_K...

How do relationships differ from joins? [Learn more](#)

Uganda_Karamoja_... Operator Uganda_Karamoja_...

Abc Name = Abc District Name

Add more fields

Performance Options

Go to Worksheet

Uganda_Karamoja_District_Crop_Yield_Population...

Logical Table: Uganda_Karamoja_Subcounty_...
Double-click this logical table to see its physical table.

Uganda_Karamoja_Subcounty_Crop_Yield_Population.csv	Uganda_Karamoja_Subcounty_Crop_Yield_Population.csv	Uganda_Karamoja_Subcounty_Crop_Yield_Population.csv	Uganda_Karamoja_Subcounty_Crop_Yield_Population.csv
OBJECTID (Uganda Kar...	Subcounty Name	District Name	POP (Uganda Karamoja ...
263	KACHERI	KOTIDO	17,244
264	KOTIDO	KOTIDO	52,771
265	KOTIDO TOWN COUNCIL	KOTIDO	27,389
266	NAKAPERIMORU	KOTIDO	38,775
267	PANYANGARA	KOTIDO	65,704
268	RENGEN	KOTIDO	41,273

Data Source Sheet1

Type here to search

25°C Mostly cloudy 12:53 PM 10/15/2021

Created a relationship using the name column and the district name table in either tables

Tableau Public - Book2

File Data Window Help

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New Union

Uganda_Karamoja_Subcounty_Crop_Yield_Population.csv is made of 2 tables.

Uganda_Karamoja_Subcounty_C... Uganda_Karamoja_District_Crop...

Join

Inner Left Right Full Outer

Data Source Uganda_Karamoja...

District Name = Name

Add new join clause

Uganda_Karamoja_Subco... 24 fields 52 rows

Name

Uganda_Karamoja_Subcounty_Crop_Yield_Population.csv

Fields

Type	Field Name	Physical Table	Rem...
#	Objectid	Uganda_Karamoja_...	OBJE...
⊙	Subcounty Name	Uganda_Karamoja_...	SUBC...
Abc	District Name	Uganda_Karamoja_...	DISTR...

Uganda_Karamoja_Subcounty_Crop_Yield_Population.csv	Uganda_Karamoja_Subcounty_Crop_Yield_Population.csv	Uganda_Karamoja_Subcounty_Crop_Yield_Population.csv	Uganda_Karamoja_Subcounty_Crop_Yield_Population.csv
POP	Area	Karamoja	S Yield Ha
8,010	150,906.375	Y	175.828
20,790	158,887.552	Y	134.084
16,470	769,609.687	Y	329.759
23,200	1,794,470.536	Y	120.862
41,493	2,069,554.899	Y	114.271
16,588	839,293.722	Y	430.557

Data Source Sheet1

Type here to search

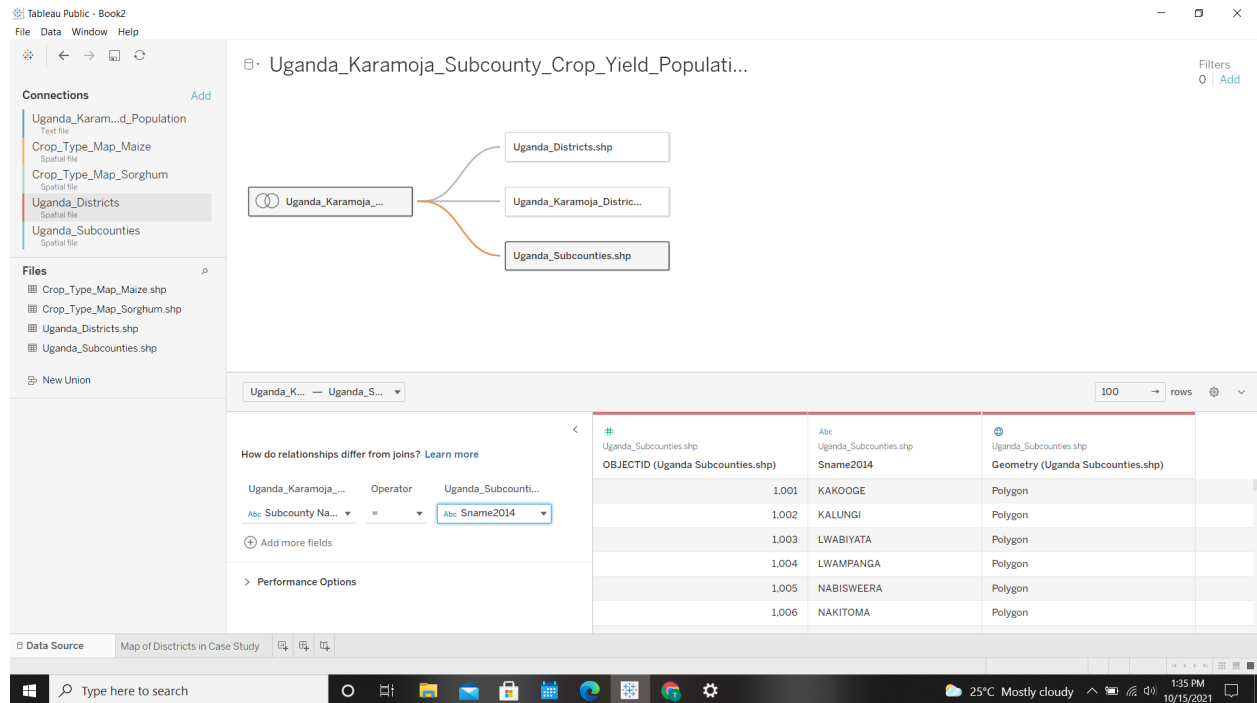
25°C Mostly cloudy 12:56 PM 10/15/2021

Created a join using the same variables as above relationship, new table has both tables information.

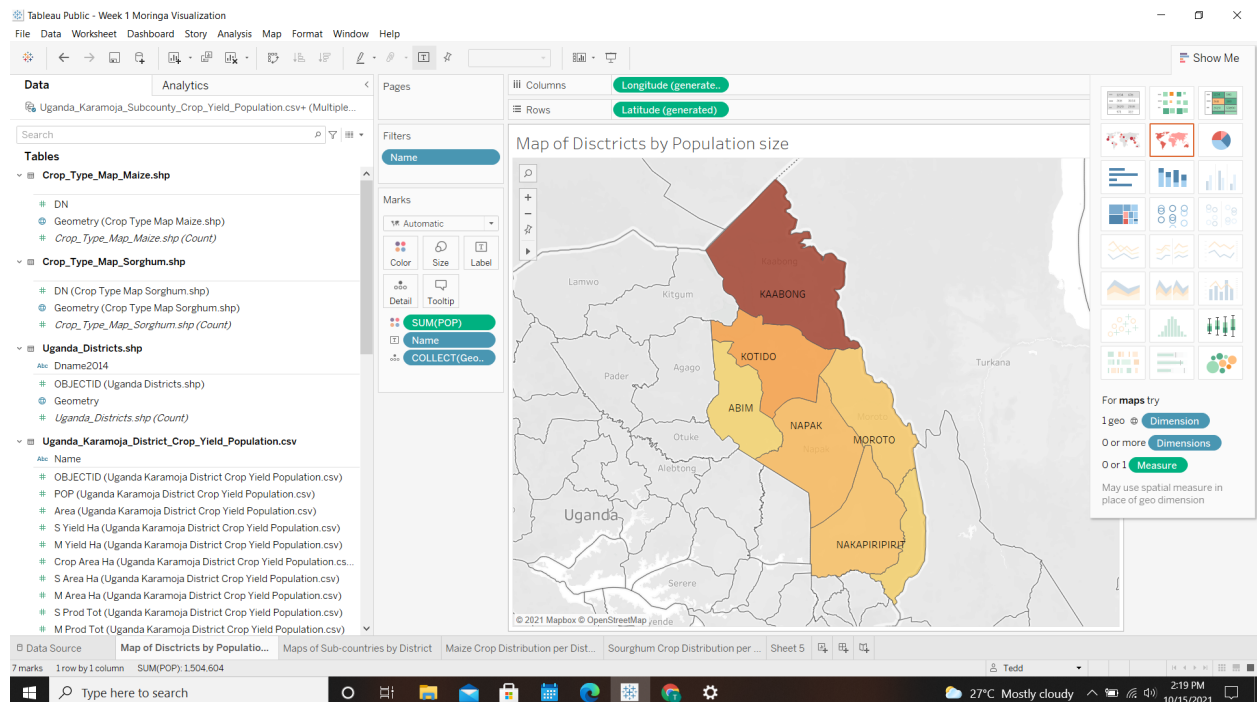
Next step is to connect all the tables with the spatial information files

Data Exploration

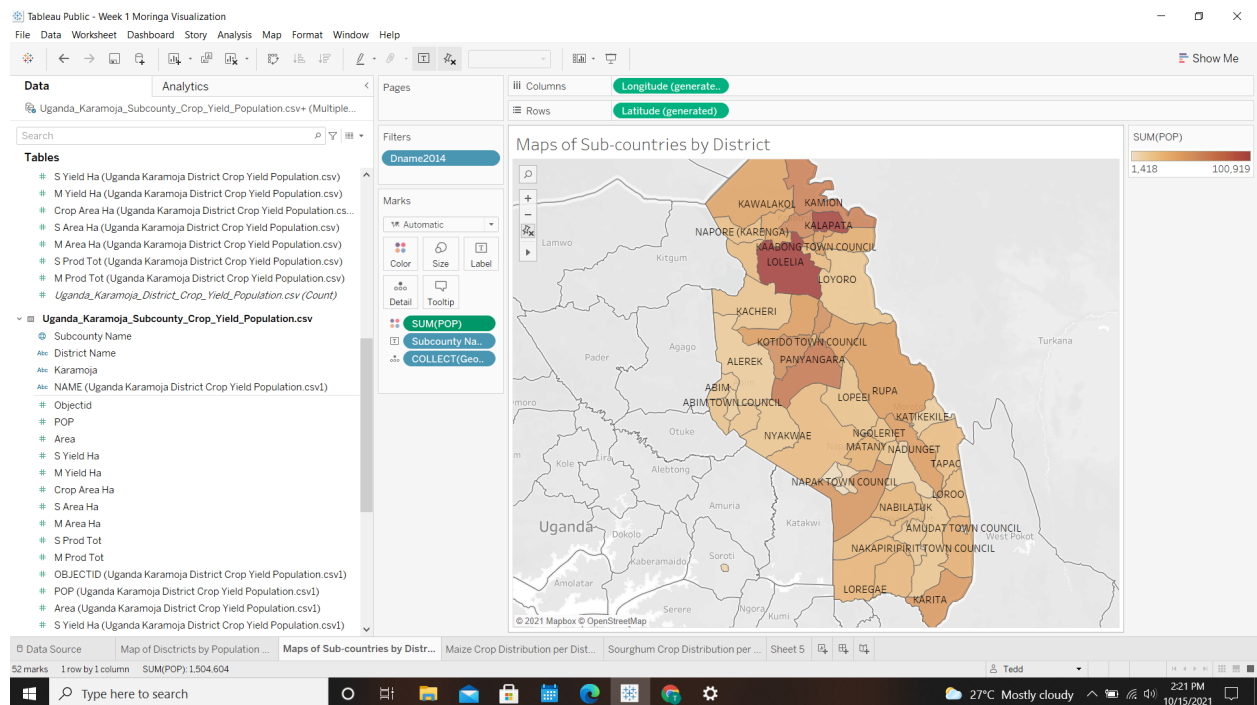
After connecting all the spatial files to tableau, the next step is to connect the joined table to the spatial files for districts and sub counties



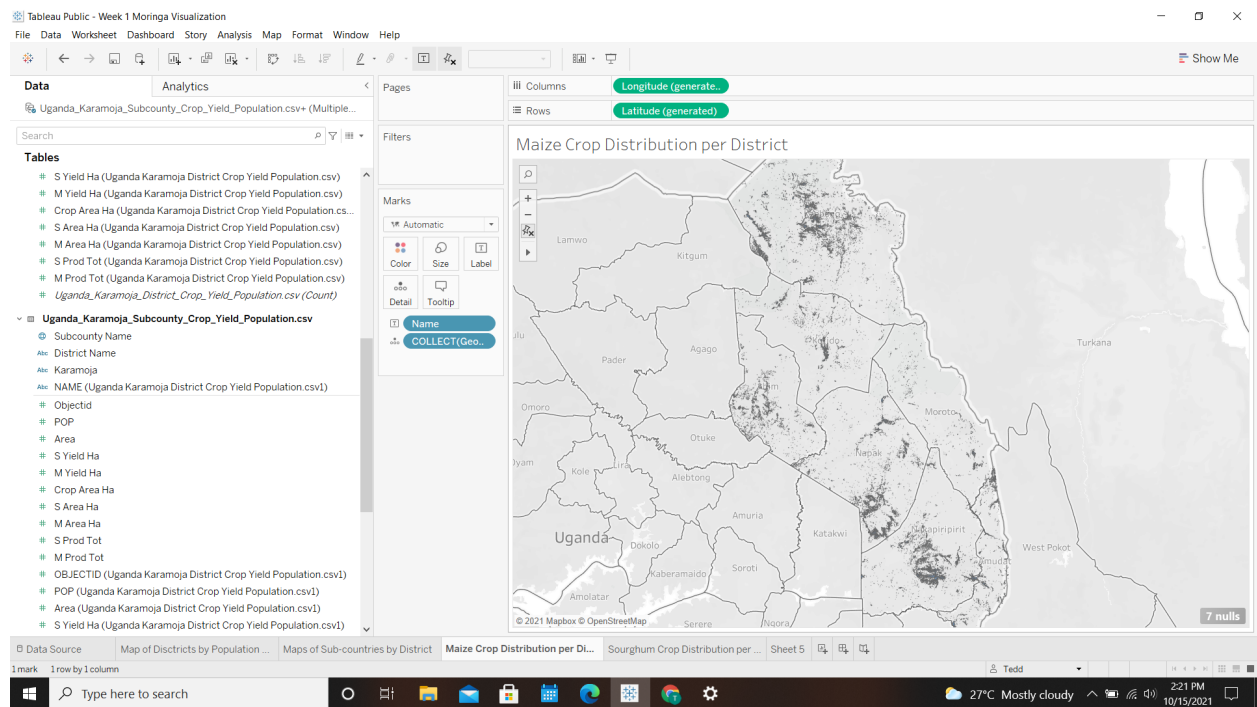
Create maps to visualize the districts, sub counties and crop distribution for both maize and sorghum



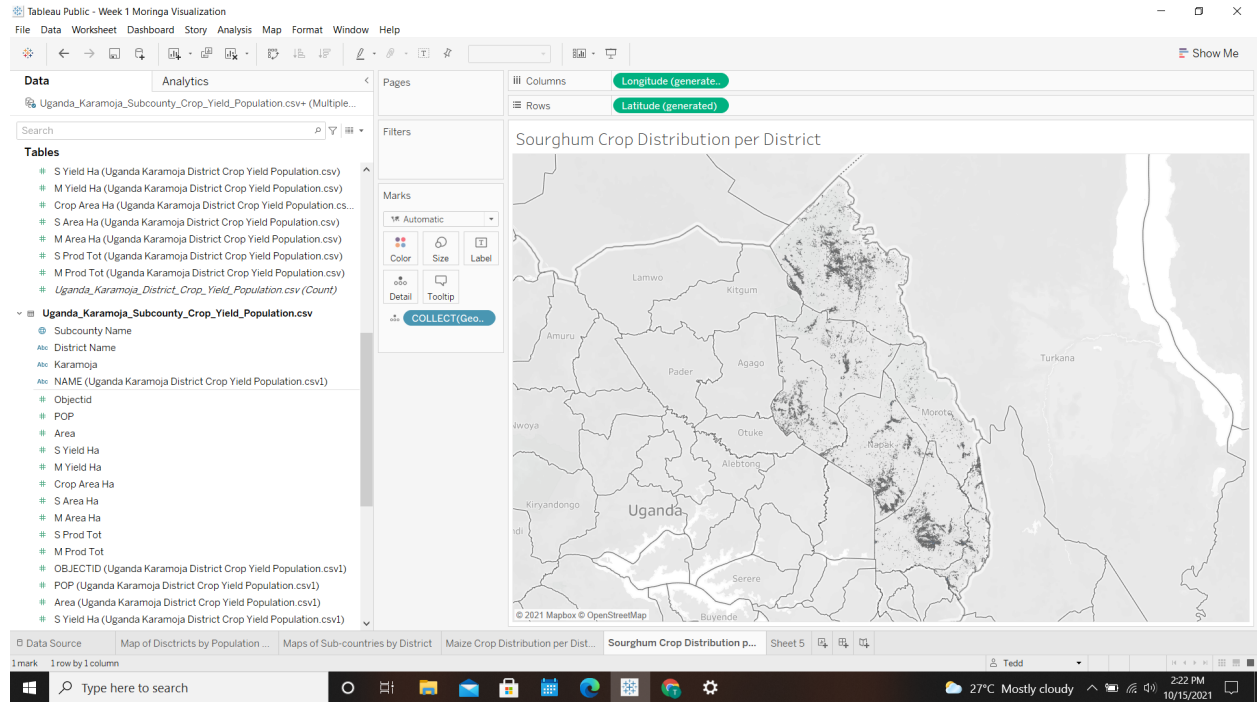
Districts colored by population



sub counties in the districts again by population

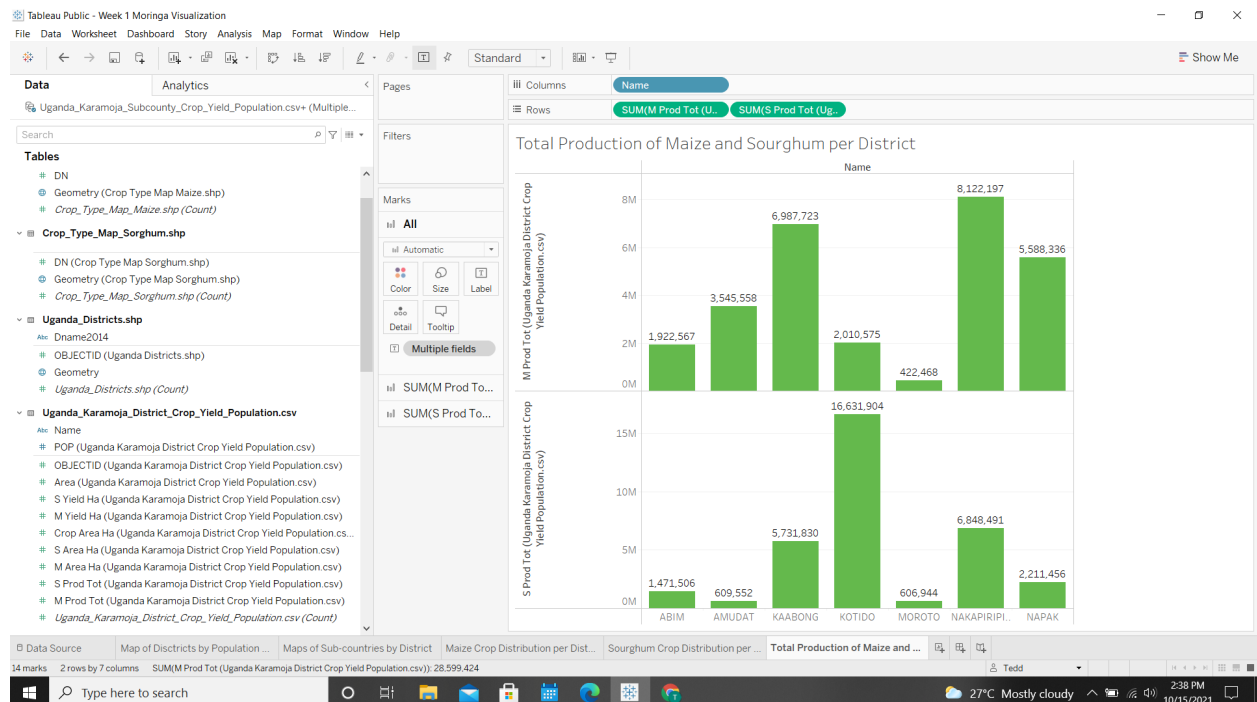


The maize crop distribution

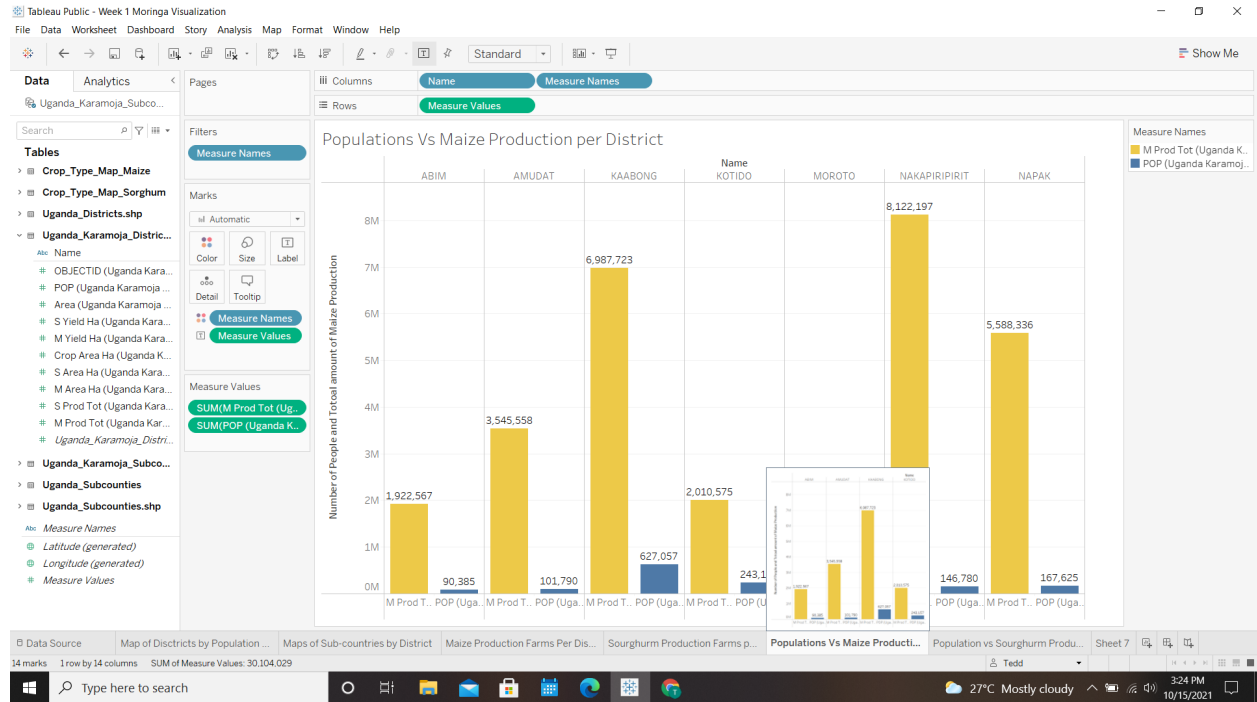


Sorghum crop distribution

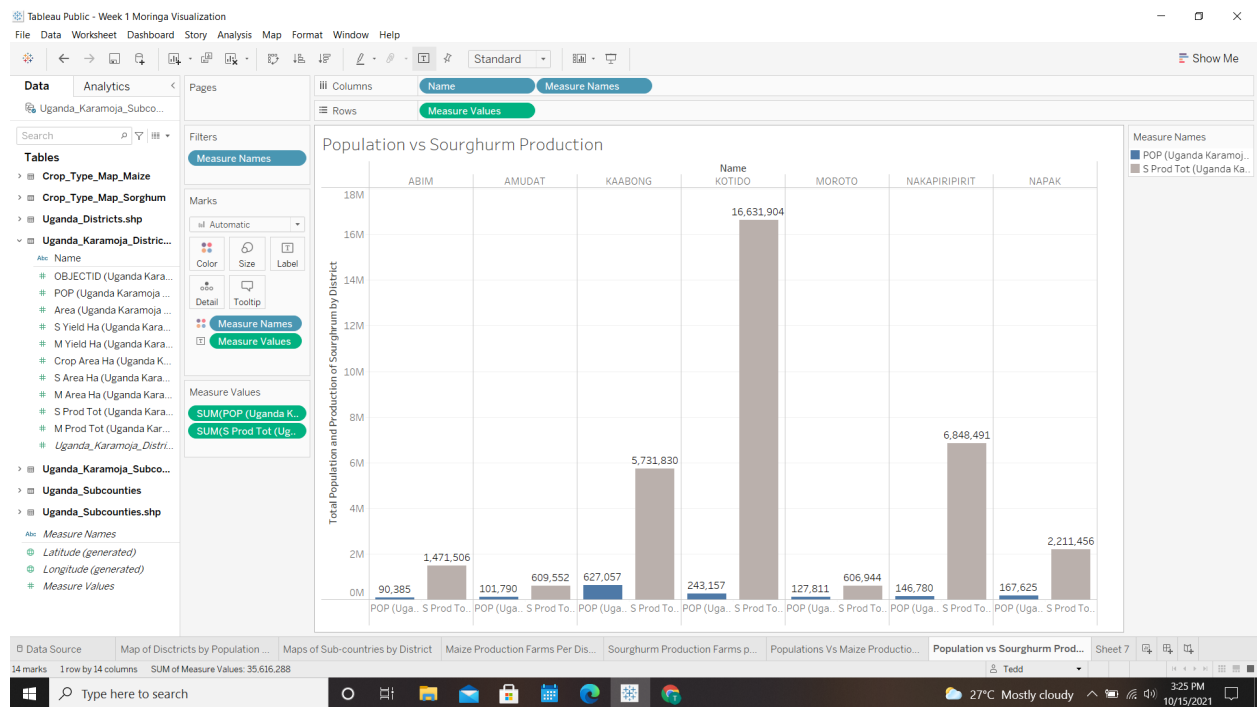
Data Analysis



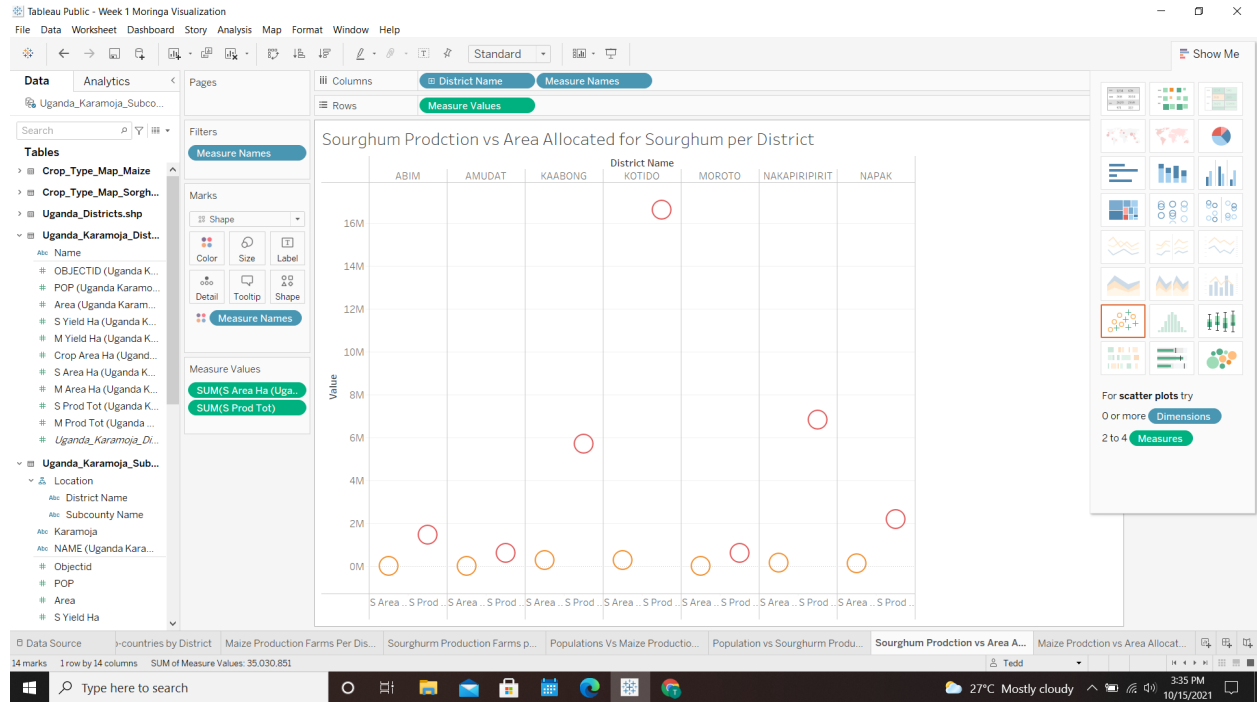
Total production of sorghum and maize for each district



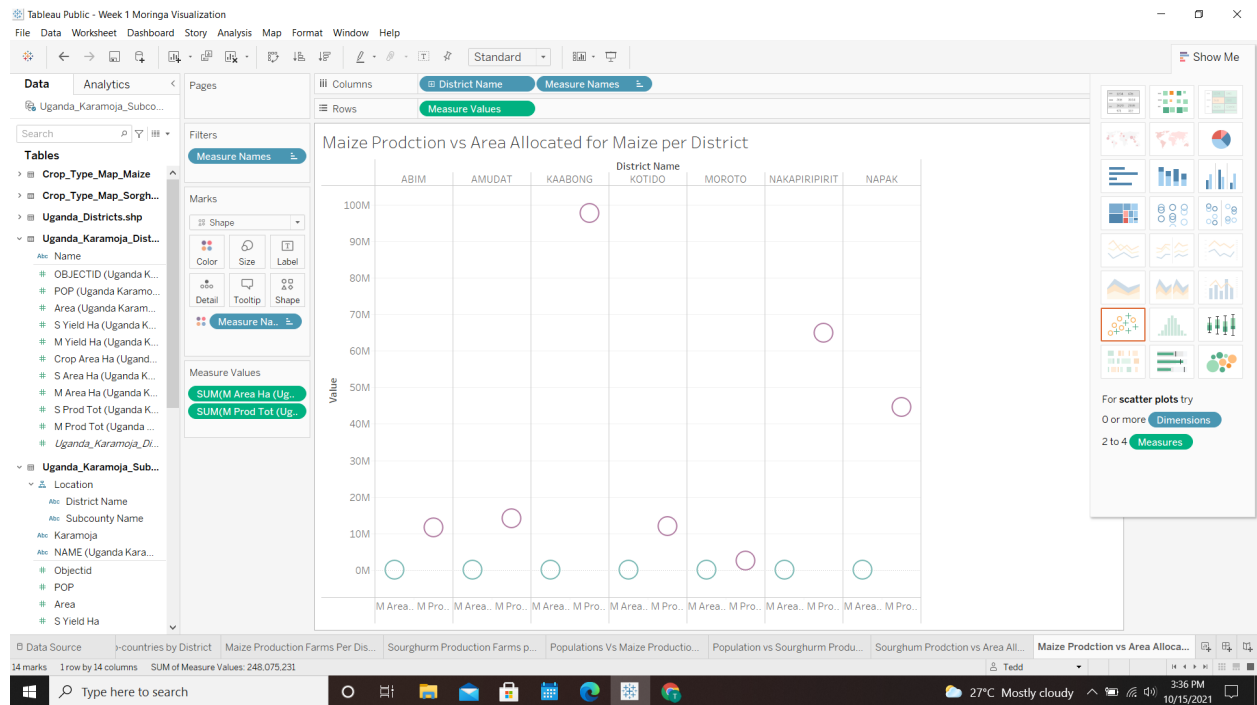
Maize production vs population



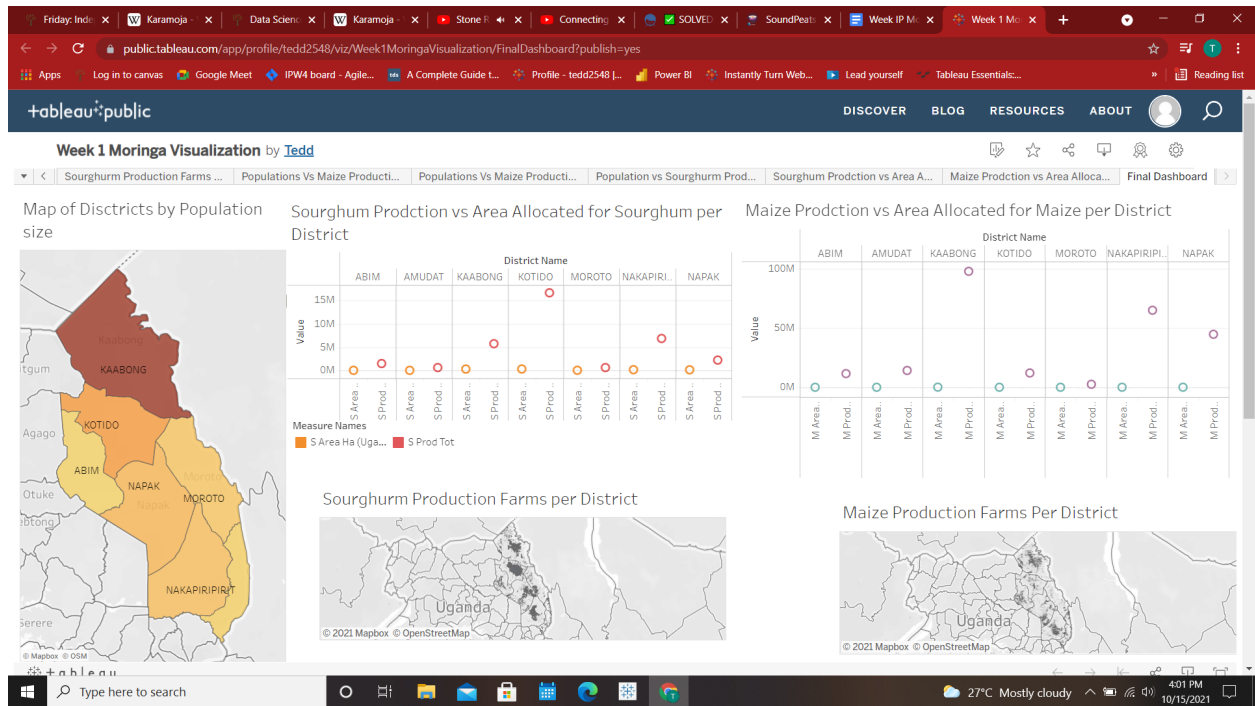
Sorghum Production vs population



Sorghum production against area allocated for sorghum



Maize production against area allocated for maize



Final Dashboard

N:B

Made the location names of district and sub counties into a hierarchy, named Location