



Analysis of Kenya Census 2019

Socio-Economic Factors

Team Decoders

Name	Role
Jenipher Mawia	Team Lead, Data Extraction, Tableau
Valentine Karimi	Data Extraction, Tableau
Pauline Chelagat	Data Studio, Data compilation
Faustine Njiriri	Data Report, PowerBI
Elizabeth Josephine	Data Report, Tableau & Visualization

PROBLEM STATEMENT

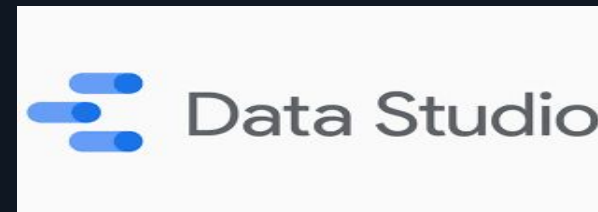
Challenges

- Census data has been **released in PDF format**.
- There is no graphical dashboard to communicate the information on the census data .

Objectives

- Building visualizations from the census data
- Draw insights from the visualizations that will help any **interested industry**
- Give recommendations from the insights drawn to different sectors.

TECHNOLOGIES USED



DATA COLLECTION & PREPARATION

- Collected by the KPHC enumerators in during the census period on the 25th August, 2019

1

Data Extraction

- Data in PDF format
-> converted to excel format

2

Data Understanding

- Census data came in 4 sections.
- Data came in county & sub-county levels

3

Data Analysis & Cleaning

- Compiled most of the data into one excel sheet

SOCIO-ECONOMIC FACTORS INVESTIGATED DURING CENSUS

- Education



- Housing



- Employment



- Agriculture



- ICT usage



- Religion



- Ethnic affiliation



- Disability



General Population in Kenya: 2019 Census

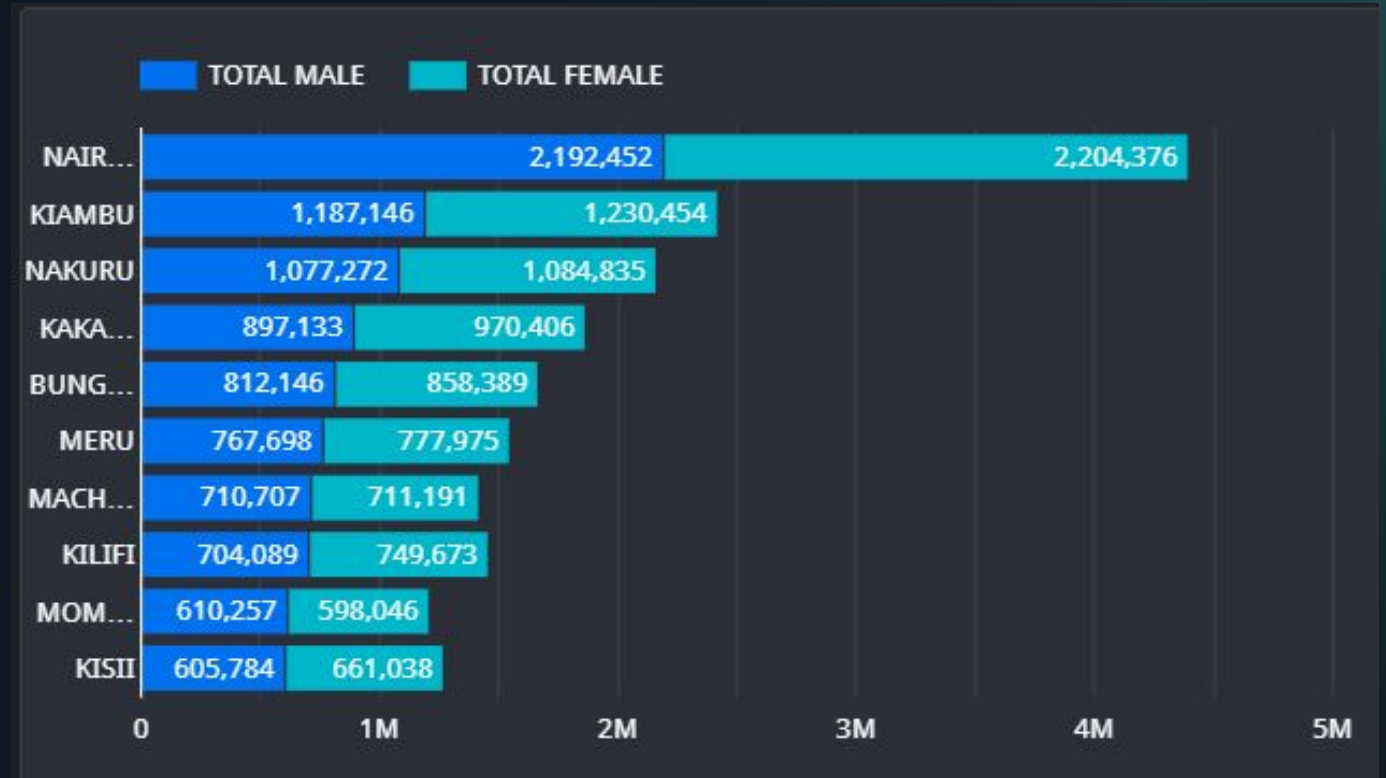
Kenya: 47.56M

Kenyans: 47.1M

Non-Kenyans: 463.6K

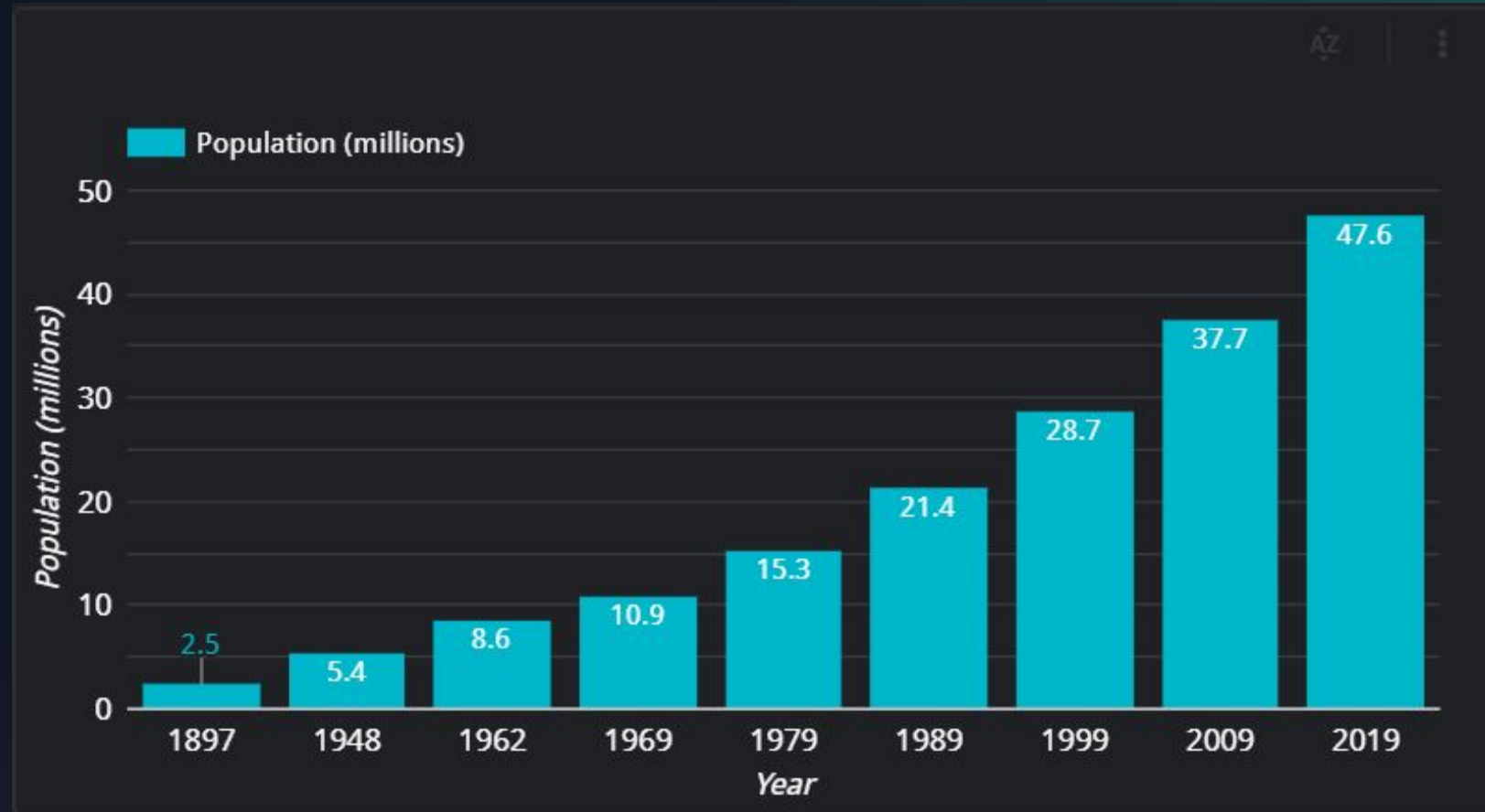
Gender

- o Females = 24 Million
- o Males = 23.5 Million
- o Intersex = 1524



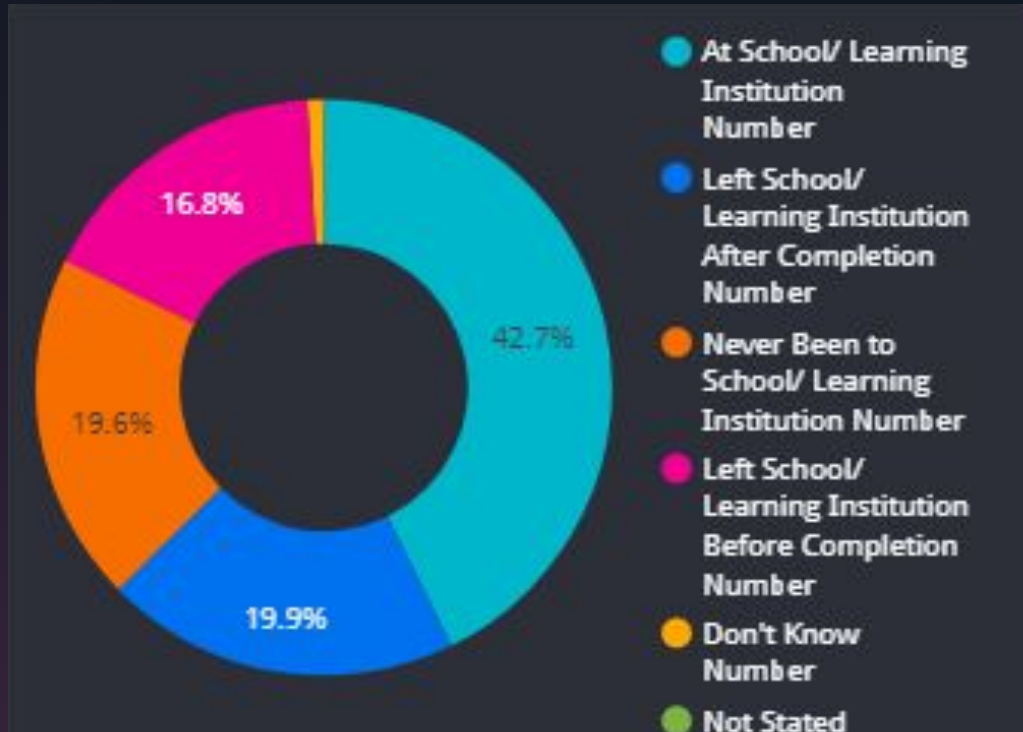
Population Trend Across the Years

- Sex ratio (No. of males per 100 females)- 9.8
- Population density - 82
- Inter-Censal growth rate - 2.2%

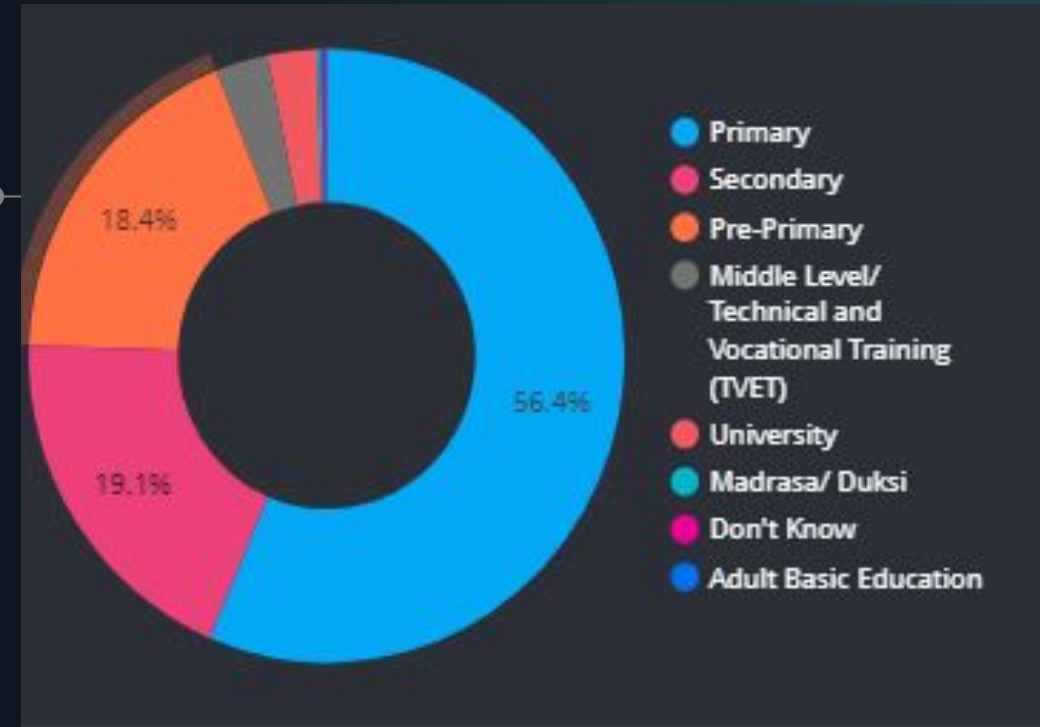


Education

School attendance status



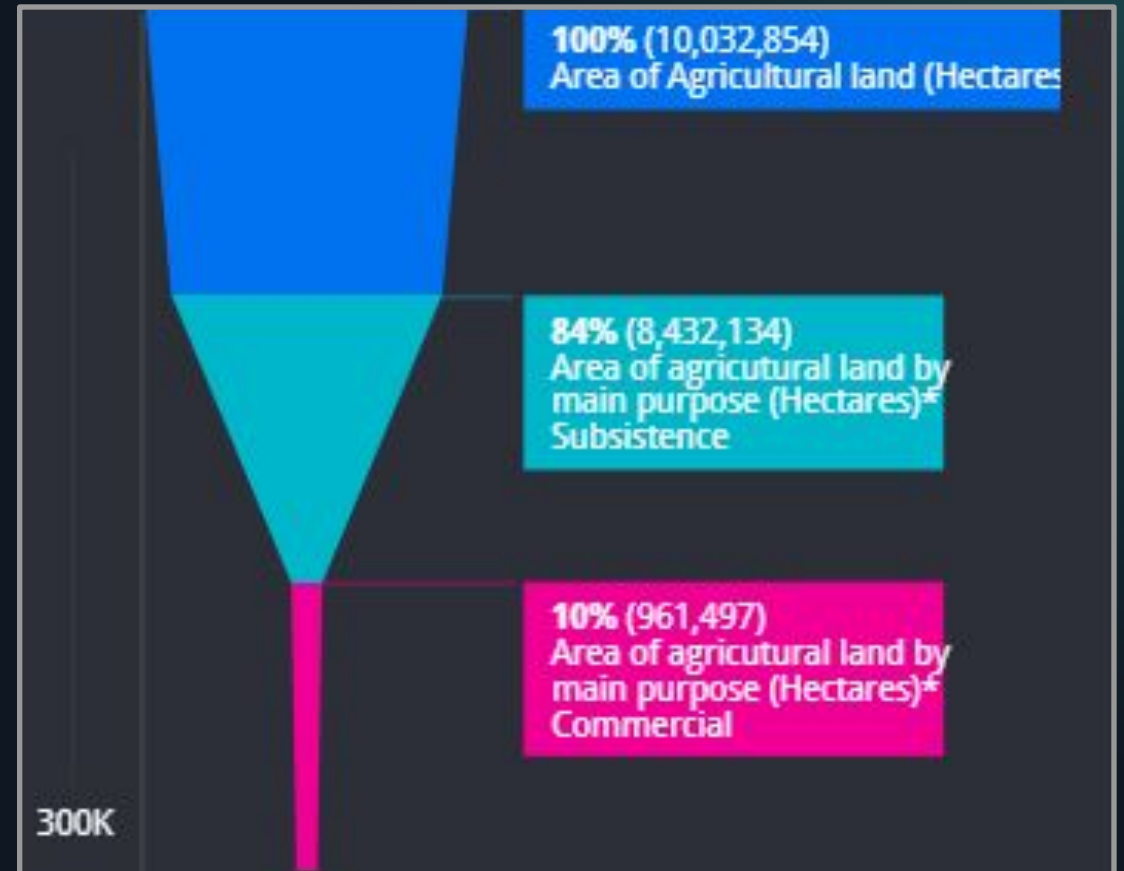
Education level reached



- 42.7 % of the population in Kenya is in school which is far from the best literacy rate of 99% in New Zealand

Agriculture

- Land area (hectares) in Kenya was reported at **56.9 million** ha in 2011, according to the World Bank .
- 17.6% of this is under agriculture according to the Census
- The rest is land in arid/semi-arid regions, water bodies, used for settlement

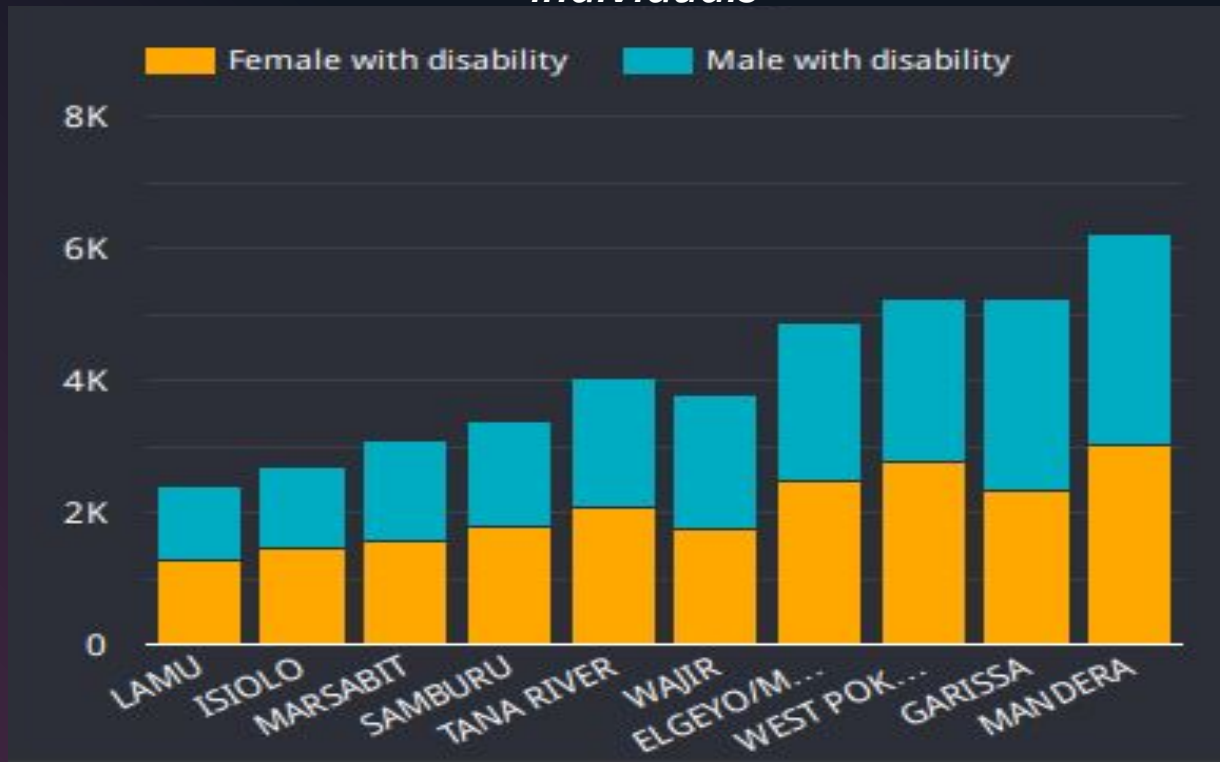


Agriculture Cont.

<u>COUNTY</u>	<u>MAIN PRACTICE</u>	<u>REASON BEHIND IT</u>
Isiolo, Tharaka-Nithi	Irrigation	Arid/Semi-arid
Machakos, Makueni	Irrigation	Arid/Semi-arid, many projects set for irrigation
Garissa, Wajir, Mandera	Aquaculture, Livestock keeping(indigenous)	Land not suitable for crop farming
Nakuru, Meru	Crop Production, Livestock keeping(exotic)	Highlands- relief areas
Lake Victoria, Homabay, Kisumu, Migori, Siaya and Busia, Kilifi, Tana River, Kwale and Lamu, Turkana	Fishing	Proximity to large water bodies

Disability

Top 10 counties with the highest number of disabled individuals



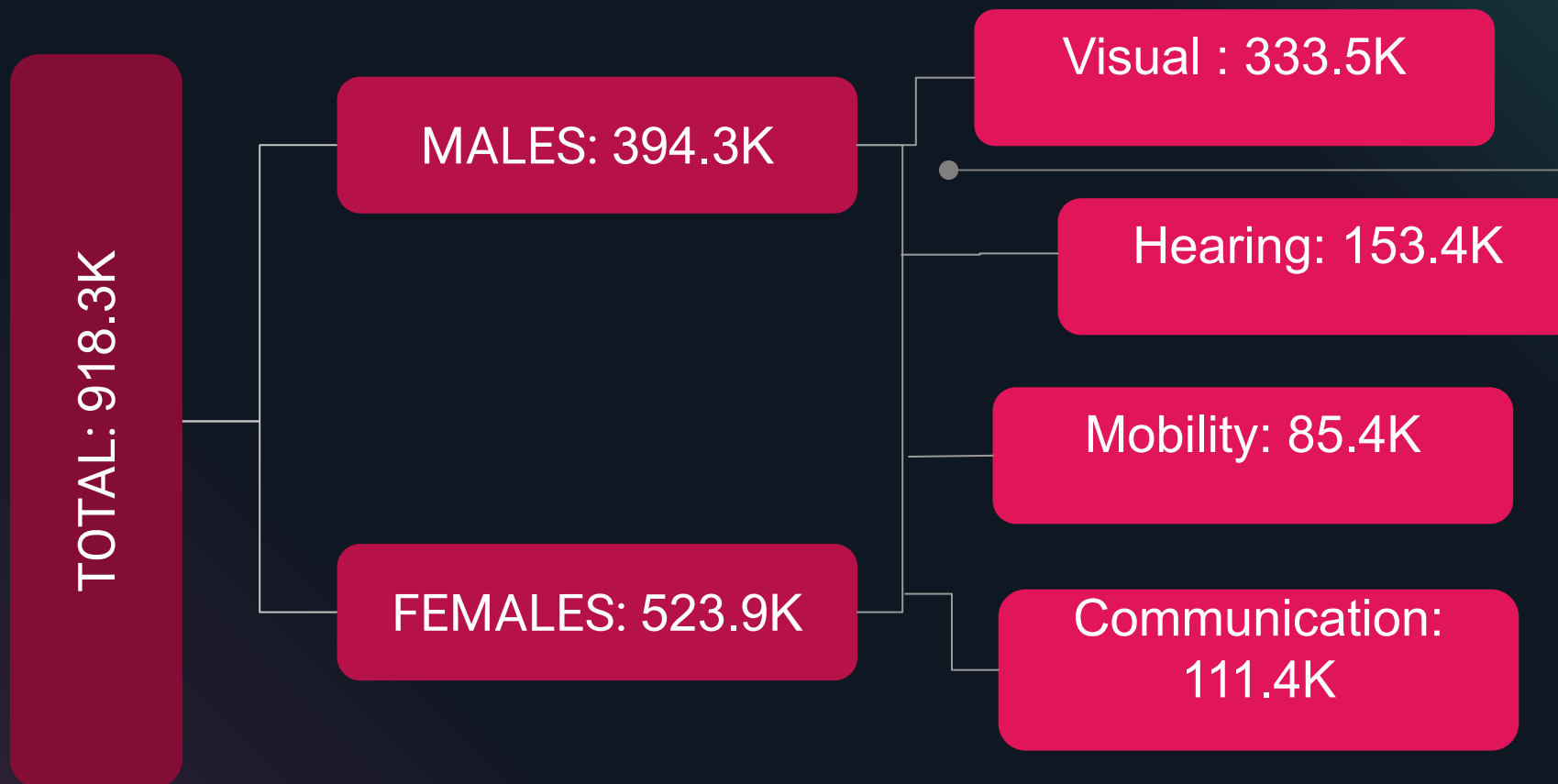
Total with disability – 0.9M

Male – 1.9%

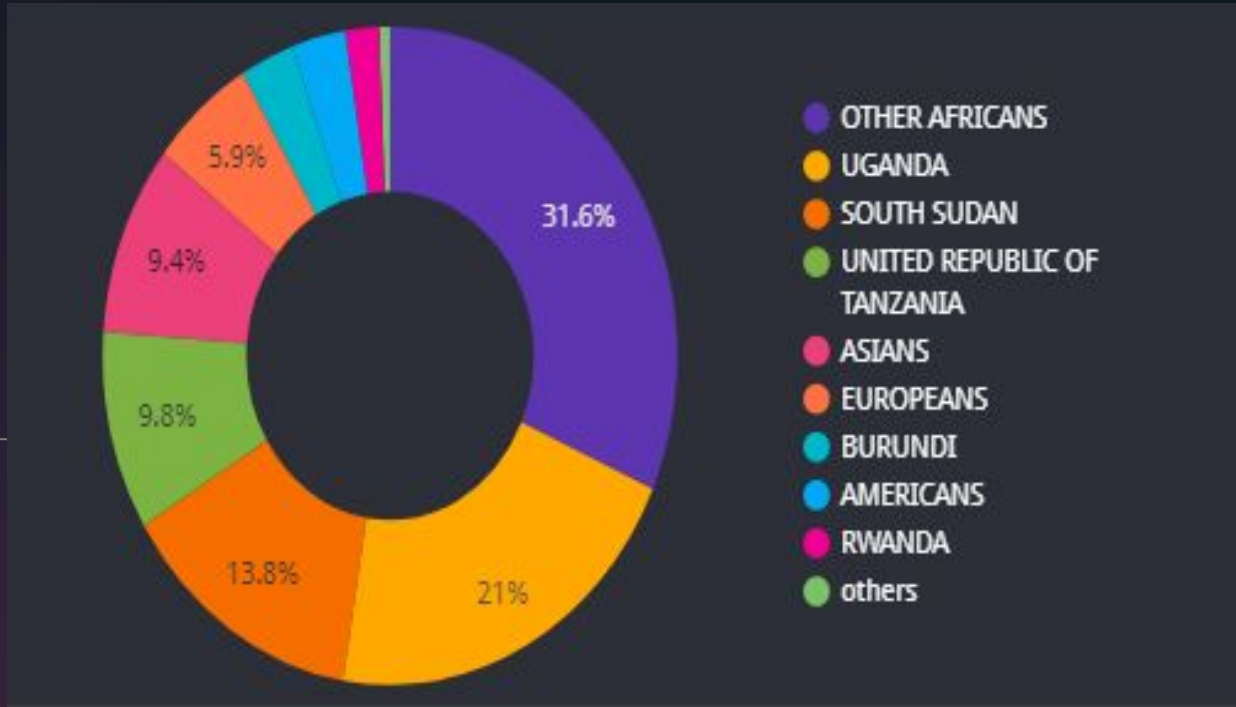
Female – 2.5%

More disabled individuals in rural areas than in urban areas

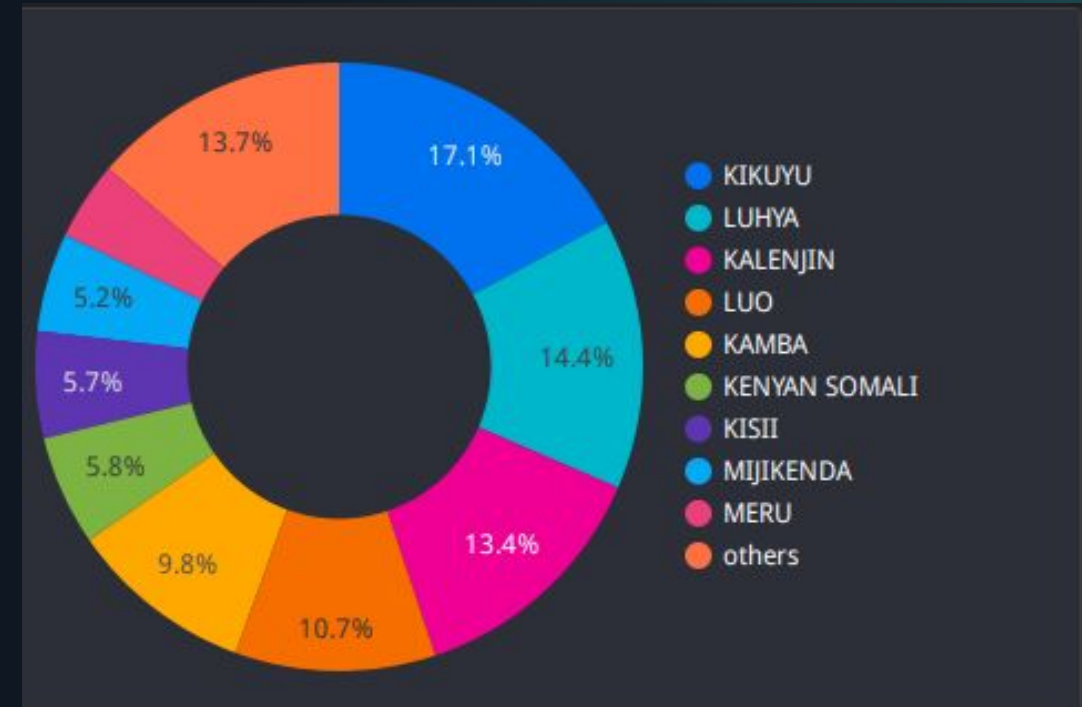
Disability Cont.



Ethnicity



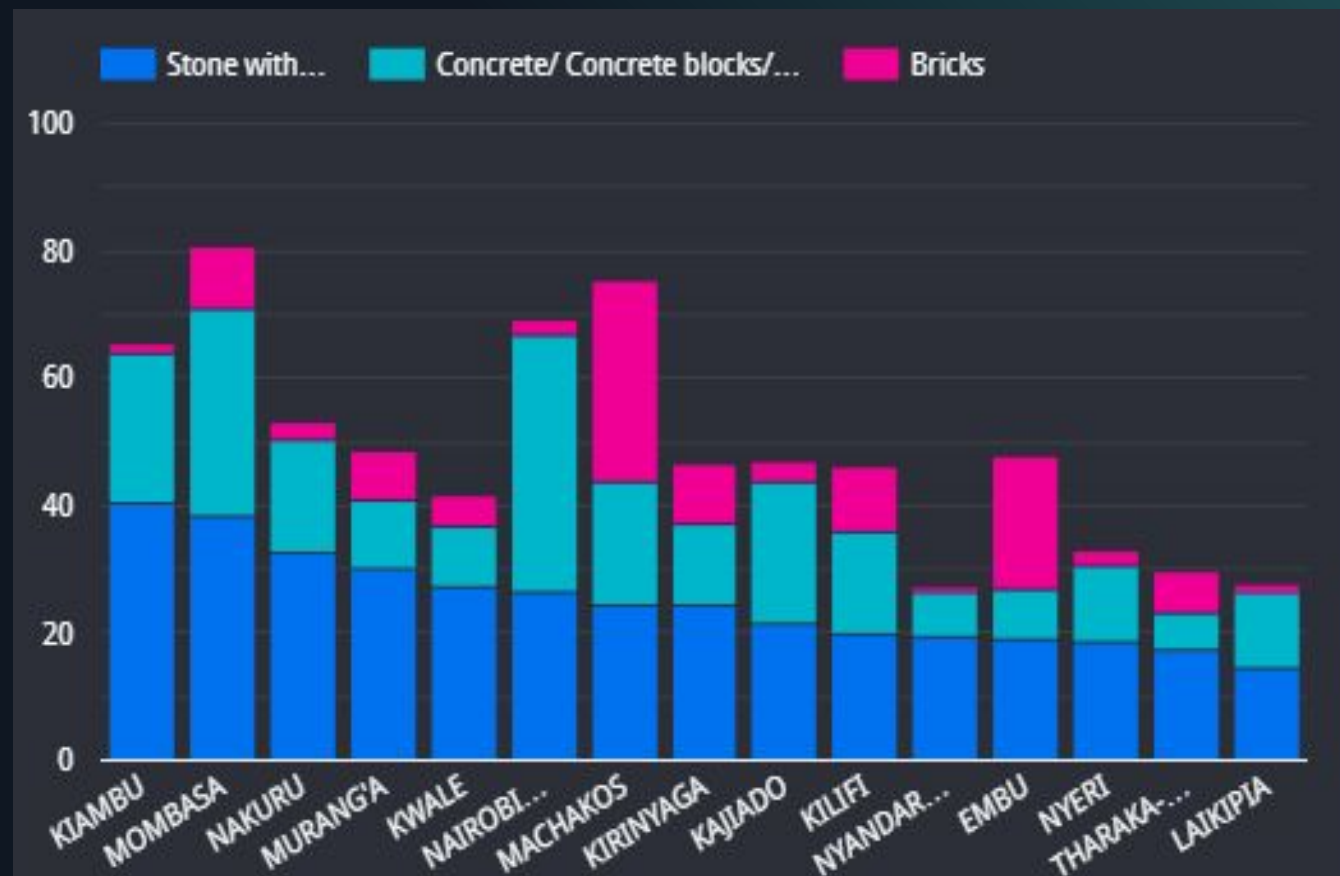
Distribution of non-Kenyans across the country



Distribution of different Kenyan tribes

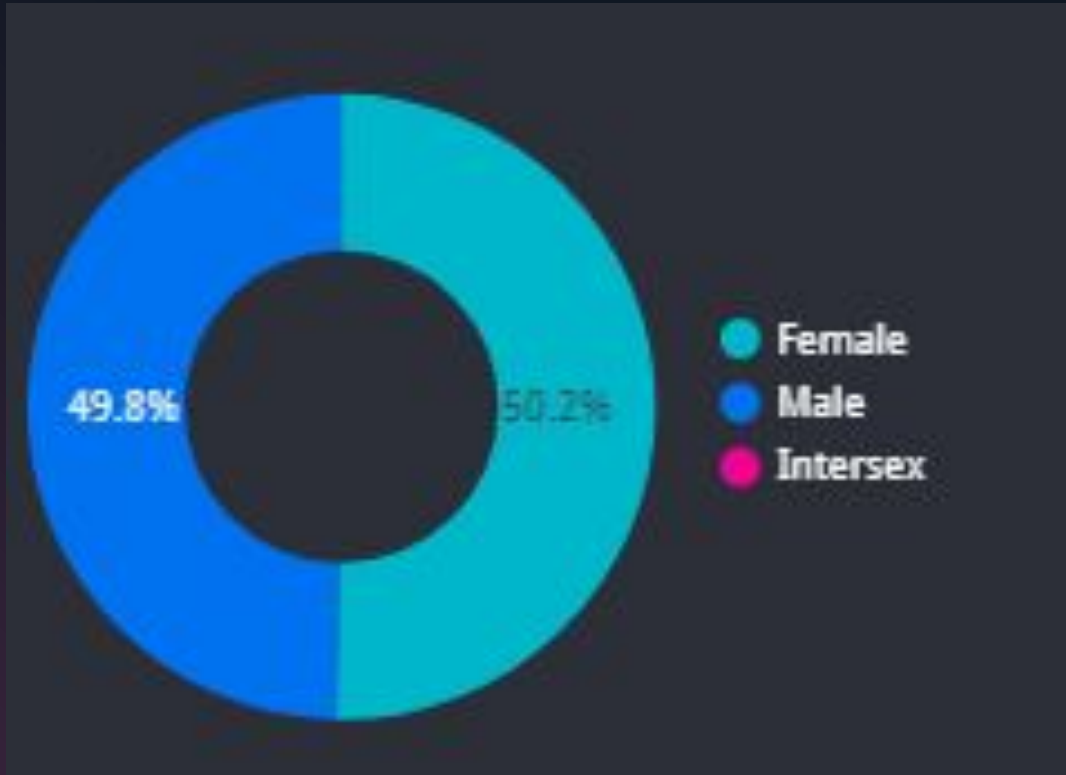
Housing

- Nairobi has the highest number of Houses constructed of iron sheets mainly slums and informal dwellings
- Due to the depletion of stones in quarries more sensitization should be done on the importance of brick constructed homes.



Conventional wall distribution by county

Employment distribution



Working Gender distribution

Person Seeking Work	2 million
Persons Working	19 million
Person outside the Labour Force	18 million

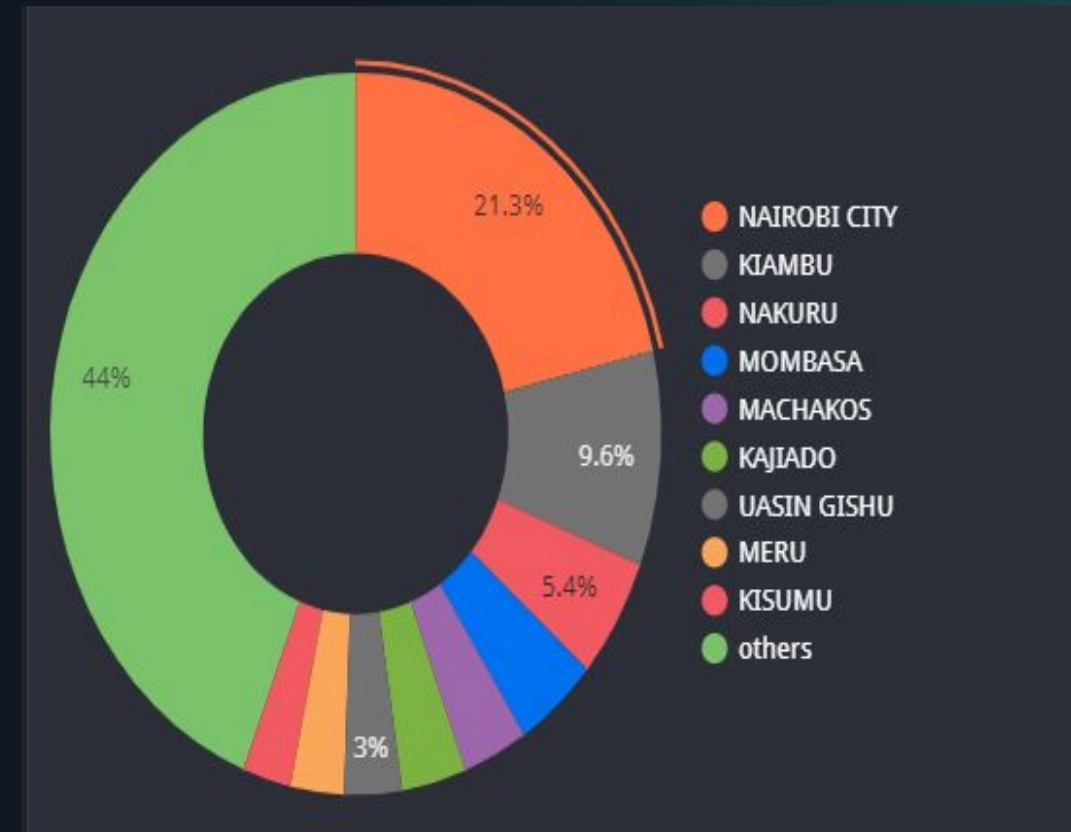
47.72% of the working population contributes to the GDP of the country.

ICT

Distribution of total population having mobile phones



Internet Usage



Fertility rate

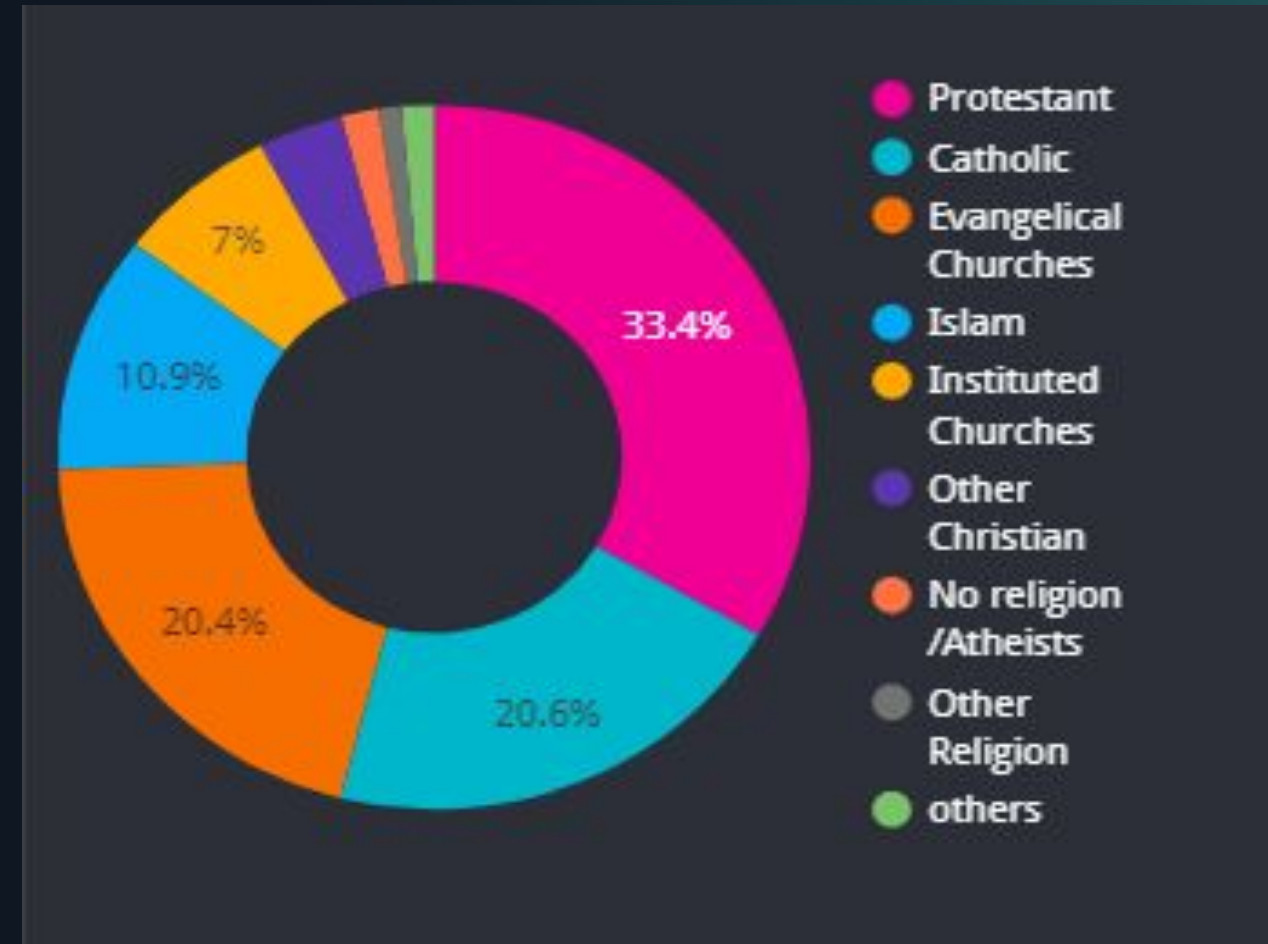
Births in the last 1 yr



- In 2019, birth rate for Kenya was 28.3 per 1,000 people. Birth rate of Kenya fell gradually from 50.9 per 1,000 people in 1970.
- We are close to what is referred to as the critical threshold of approximately 2 children born per woman.

Religion

Most popular: Christians
Islams - 5.15M
Atheists - 755,750



Religion groups across the country

Challenges faced/Wins

1

Data Extraction

- The data we used came in PDF format and we had to extract the tables. It was time consuming.

2

Power/Internet connectivity

- There were frequent power shortages and that affected our work.

3

Wins: Visualization tools

- Learnt to use new tool: Data Studio 🎉

Recommendations

```
graph TD; R[Recommendations] --- 1((1)); R --- 2((2)); R --- 3((3)); 1 --- E[Education]; 2 --- H[Housing]; 3 --- Em[Employment];
```

1

Education

- o Affordable secondary education should be introduced to favour the transition from primary.

2

Housing

- o More sensitization should be done in Baringo, Bomet and Bungoma to sensitize on the importance and durability of tiles to other forms of flooring.

3

Employment

- o The government should try and reduce the tax cap for business so that more youths can dive into entrepreneurship

Action Steps/ Future Scope

More visualizations should be done for;

- **Population and Housing Census volume I:Population by county and sub county**
- **Population and Housing Census volume II:Distribution of Population by Administrative units**
- **Population and Housing Census volume III:Distribution of Population by Age, Sex and Administrative of the census dataset**



THANK YOU!

Team Decoders