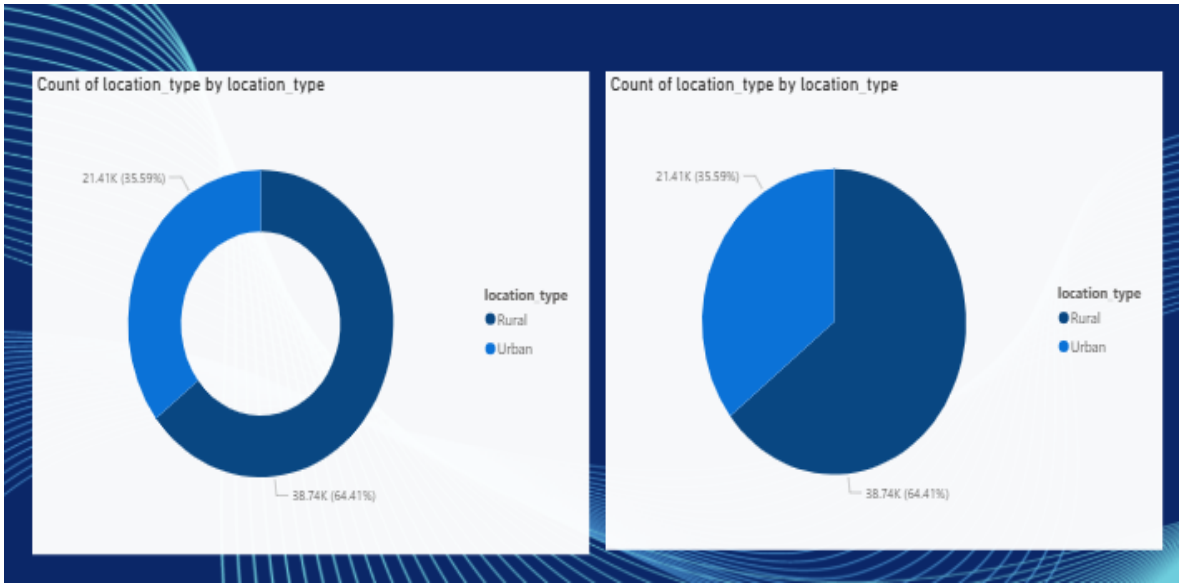
DATA VISUALIZATION USING POWER BI

Integrated project: Visualizing Maji Ndogo's data set

Data set overview: The Maji Ndogo dataset simulates a national water access system, highlighting disparities in water availability and infrastructure performance across regions. It includes data on water source types, functionality, population served, and service reliability. The dataset supports interactive analysis to identify underserved communities and guide data-driven planning and resource allocation.

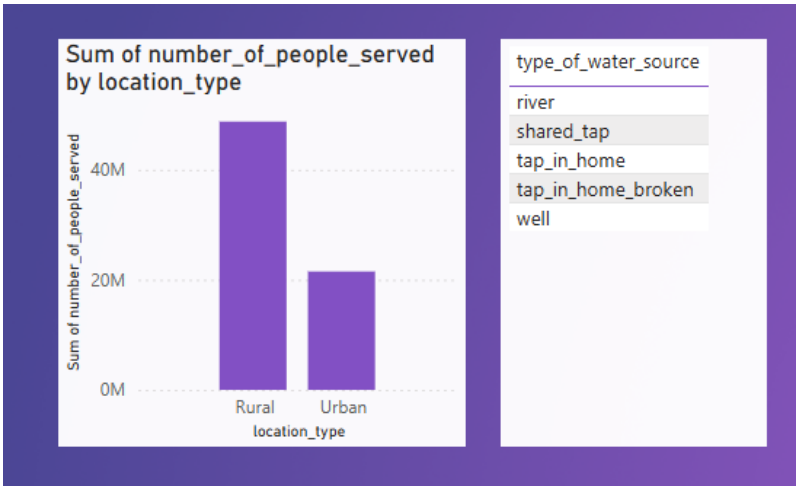
Q_1: What is the percentage of people living in the rural parts of Maji Ndogo?



A_1: About 64.4% shared rural part of the population

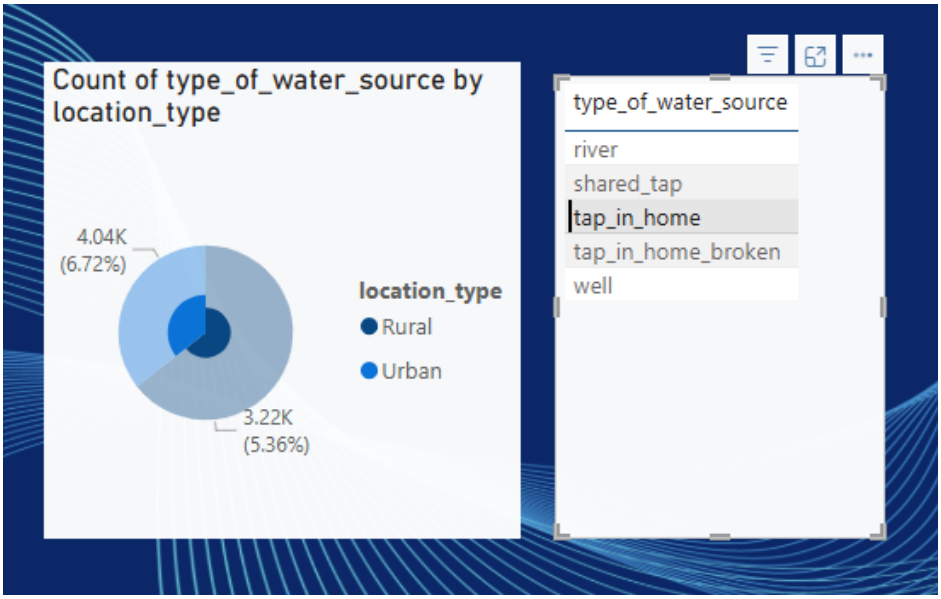
Q2. What is the number of people using shared taps in the urban areas of Maji Ndogo?

A bar chart was used to display the total number of people served by shared taps in urban Maji Ndogo, with the X-axis showing the summed number of people served and the Y-axis representing the selected category, after filtering for shared taps and urban locations.



location_type	Sum of number_of_people_served
Rural	48741718
Urban	21508708

Q3. What is the percentage of people in rural areas who have working taps in their homes?



Q4. *Modify the filter on your provincial map to answer the following question:* Which province has the lowest number of tap_in_home sources?

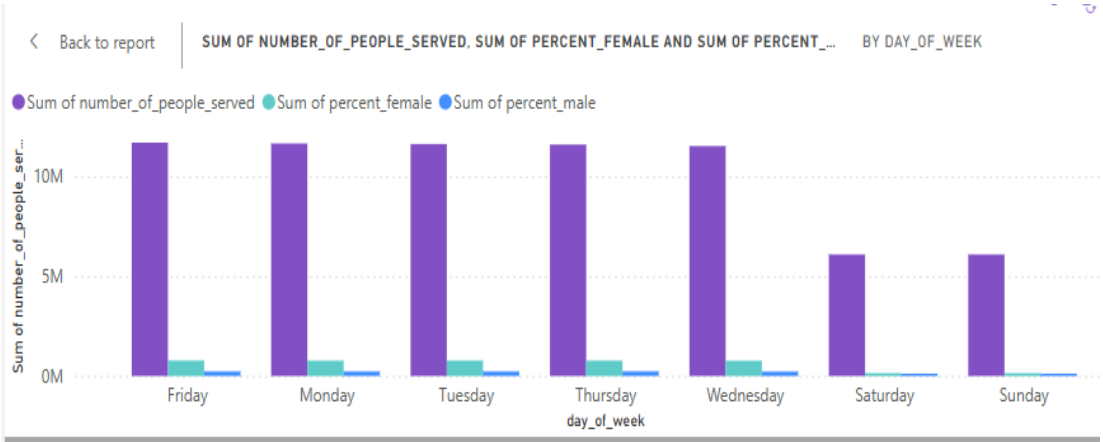
Hawassa is the smallest

Create a new calculation or select one to edit it here

province_name	Sum of number_of_people_served
Akatsi	16148948
Amanzi	12346916
Hawassa	9575802
Kilimani	18657916
Sokoto	13520844
Total	

Q5. Which of the following trends is correct about the gender composition of queues across the different days?

- On weekend day Saturday and Sunday, the proportion of male and female on water access is normally distributed



day_of_week	Sum of number_of_people_served	Sum of percent_female	Sum of percent_male
Friday	11692336	778,280.05	231,785.24
Monday	11648972	770,413.27	230,758.31
Tuesday	11621986	772,266.98	231,621.84
Thursday	11593556	774,142.28	235,146.05
Wednesday	11515780	768,612.07	225,729.44
Saturday	6088898	145,372.06	116,580.60
Sunday	6088898	144,486.22	116,542.12

Q6. *On a new page, create a clustered column chart that shows the average gender composition of queues per town.* Include the following data in your plot:

- percent_male
- percent_female
- percent_child
- town_name

And use only the following filter:Include only shared_taps as water source type

Based on the visual you created, which towns have the highest percentage of children in the queues?

- Rural and Lusaka are the highest percentage of children in the queues