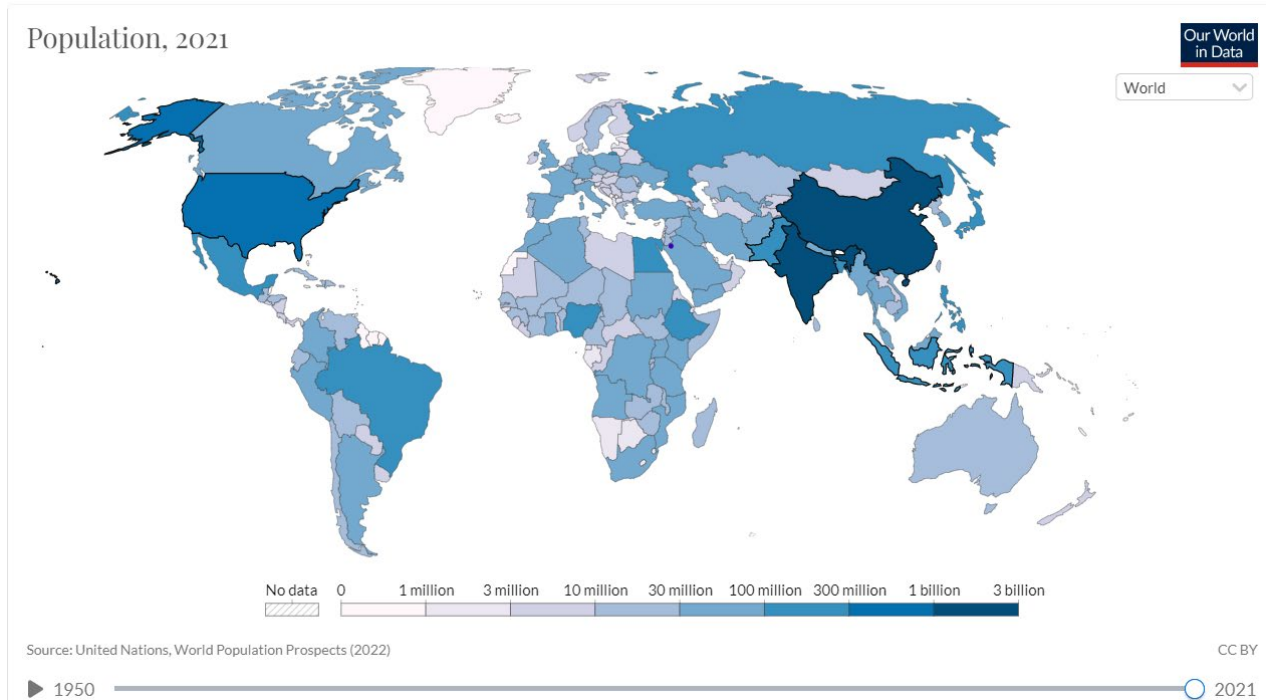


## DATA ANALYSIS AND VISUALIZATION

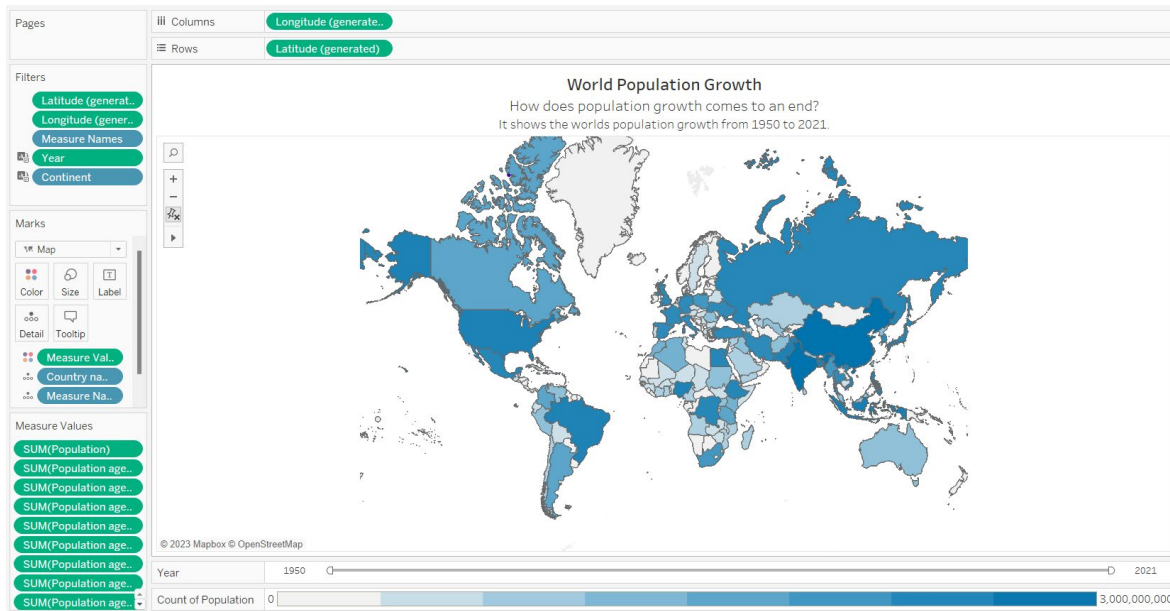
### HOMEWORK – 3

#### VISUAL – 1:



*Figure 1: World Population Growth*

## My replicated visual in Tableau:



*Figure 2: Replicated World Population Growth using Tableau*

**Brief Description:** When and why did the world population grow? And how does rapid population growth come to an end? These are the big questions that are central to this research article. The world population increased from 1 billion in 1800 to around 8 billion today. The world population growth rate declined from around 2% per year 50 years ago to under 1.0% per year.

**Reference:** <https://ourworldindata.org/world-population-growth>

## VISUAL – 2:

### Sex ratio at birth, 1950 to 2021

The sex ratio at birth is measured as the number of newborn boys for every 100 newborn girls.



[+ Add country](#)

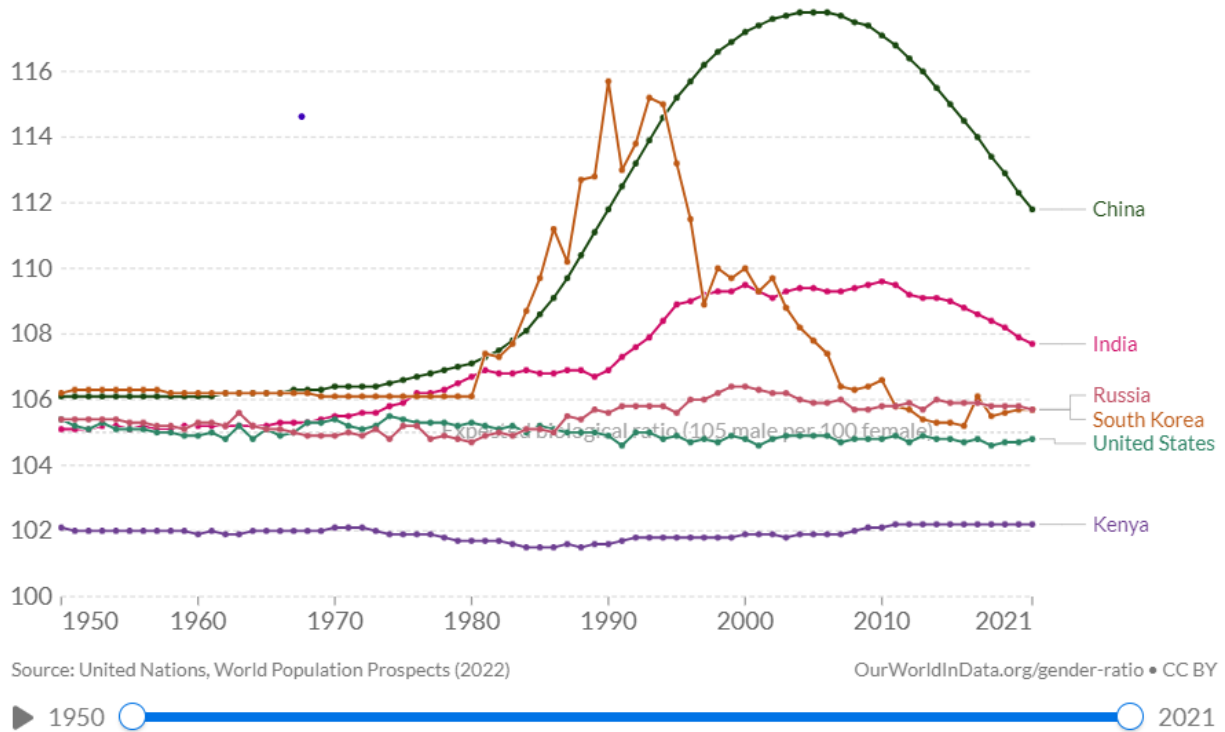


Figure 3: Sex ratio at Birth: 1950 to 2021

## My replicated visual in Tableau:

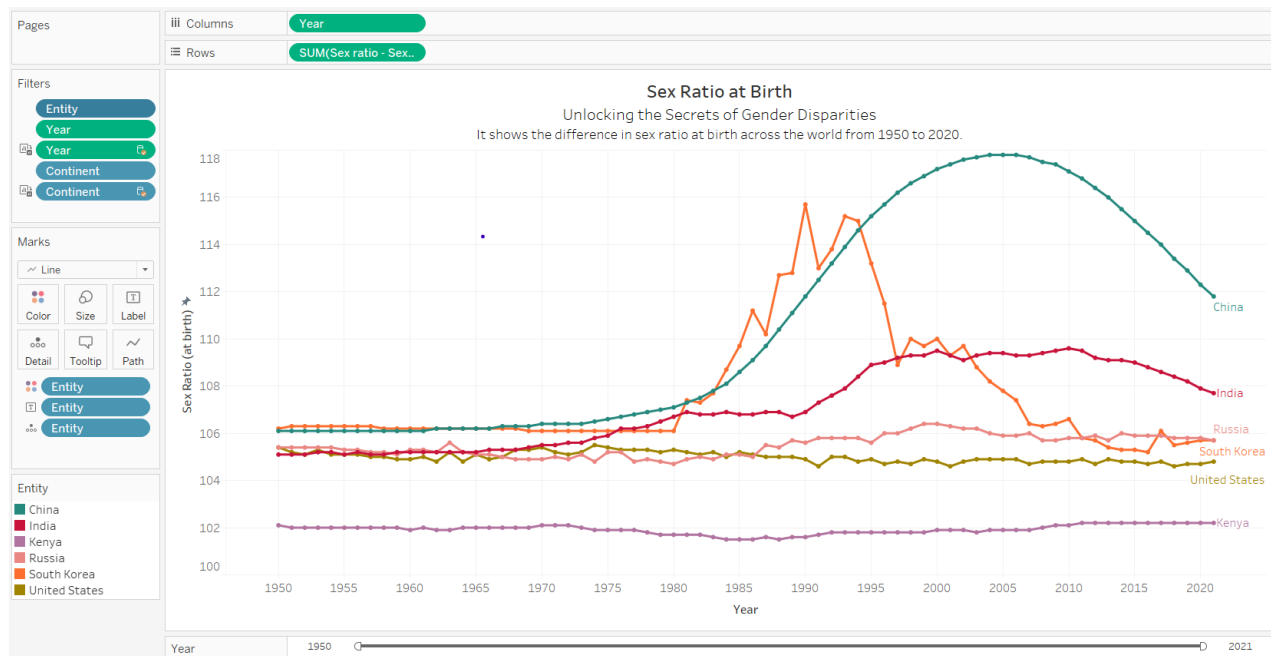


Figure 4: Replicated Sex ratio at Birth: 1950 to 2021 using Tableau

**Brief Description:** In the map we see the differences in sex ratio at birth across the world. Here the sex ratio is measured as the number of male births for every 100 female births. The first striking point is that in every single country of the world there are more boys born than girls. This has been true for all years for which we have data (as far back as 1950) in all countries of the world, as you can when you move the time slider below the map further back.

**Reference:** <https://ourworldindata.org/gender-ratio>

## DASHBOARD – 1:

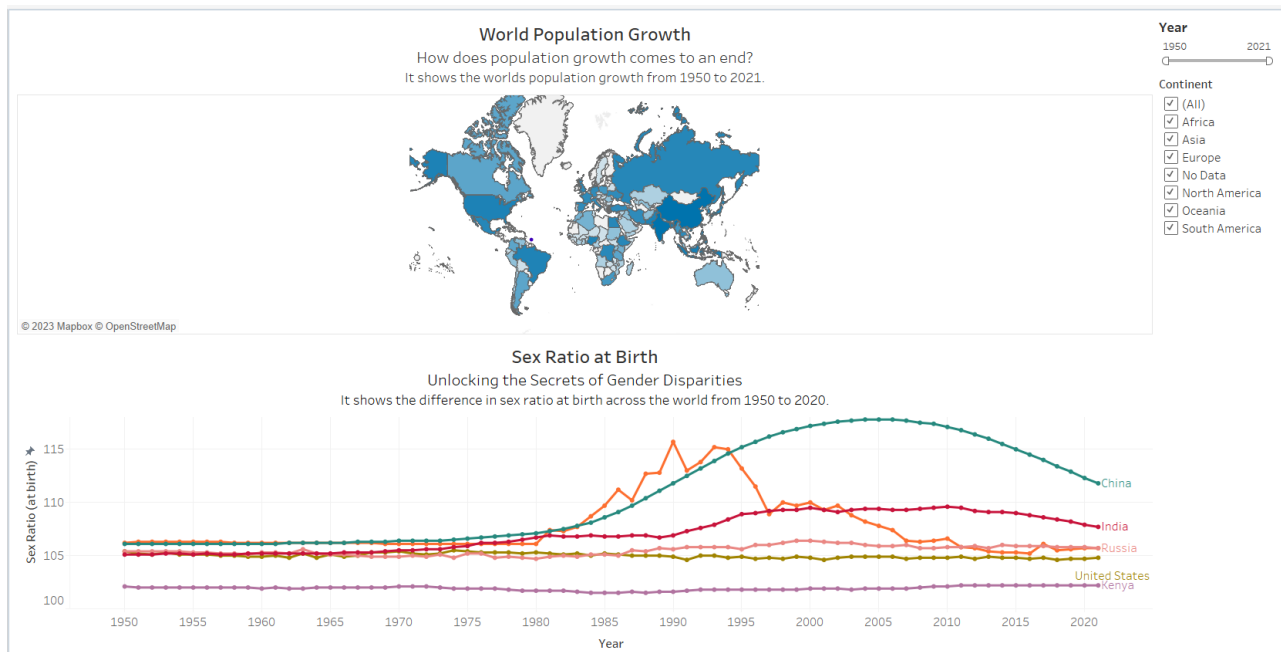


Figure 5: Dashboard No. 1

**Usage:** The year slider will help to view the dashboard's chart on the same timeline. Even, continents list will be useful to view for specific list of countries. This visual describes the world population growth along with the sex ratio at birth for the specified continents from 1950 to 2021.

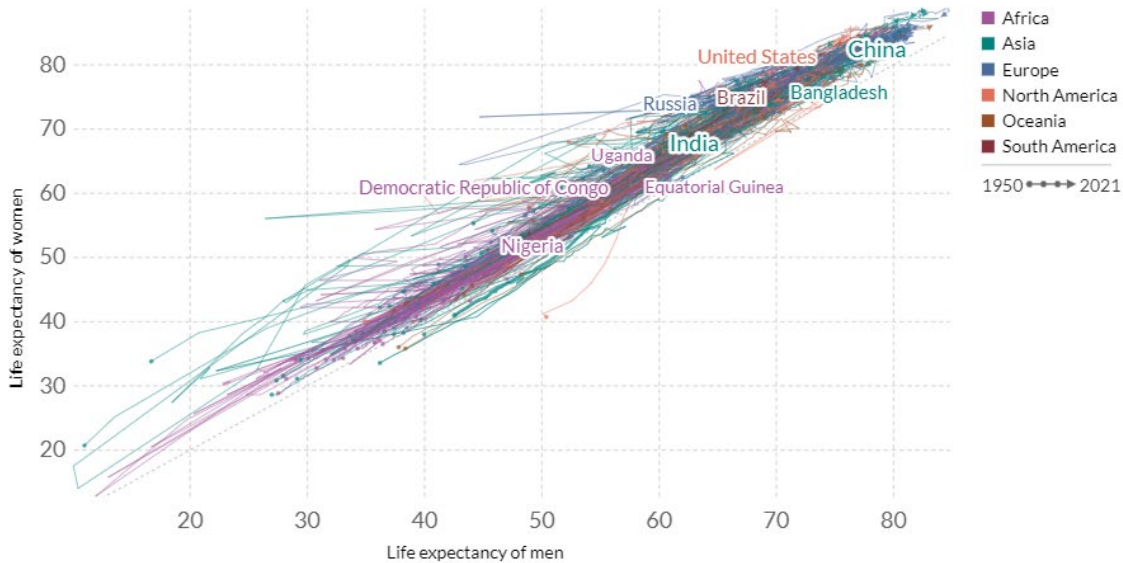
### VISUAL – 3:

#### Life expectancy of women vs life expectancy of men, 1950 to 2021

In countries that lie above the grey line the life expectancy of women is higher than for men.

Our World  
in Data

Select countries ☐ Average annual change



Source: United Nations, World Population Prospects (2022)  
Note: Shown is the period life expectancy at birth measured in years.

OurWorldInData.org/life-expectancy • CC BY

1950 2021

Figure 6: Life Expectancy of Women v/s Men: 1950 to 2021

## My replicated visual in Tableau:

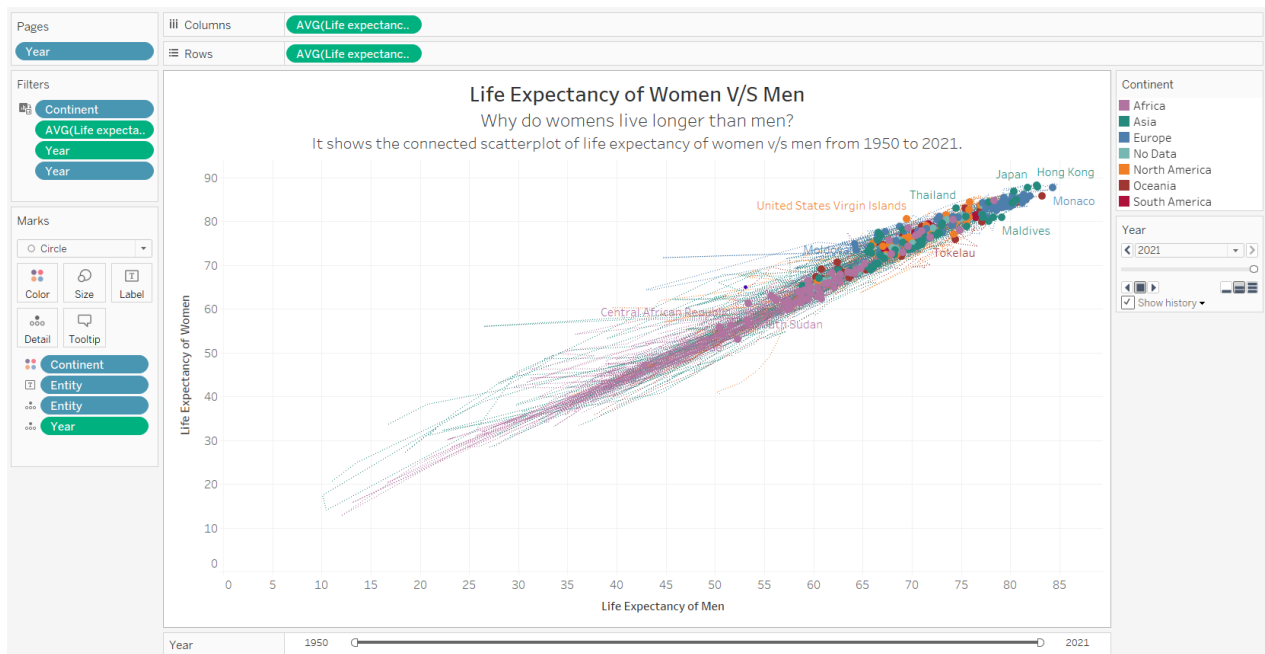


Figure 7: Replicated Life Expectancy of Women v/s Men: 1950 to 2021 using Tableau

**Brief Description:** The chart shows life expectancy for men and women. As we can see, all countries are above the diagonal parity line – this means in all countries a newborn girl can expect to live longer than a newborn boy. Interestingly, this chart shows that while the female advantage exists everywhere, the cross-country differences are large. In Russia women live 10 years longer than men; in Bhutan the difference is less than half a year.

**Reference:** <https://ourworldindata.org/why-do-women-live-longer-than-men>

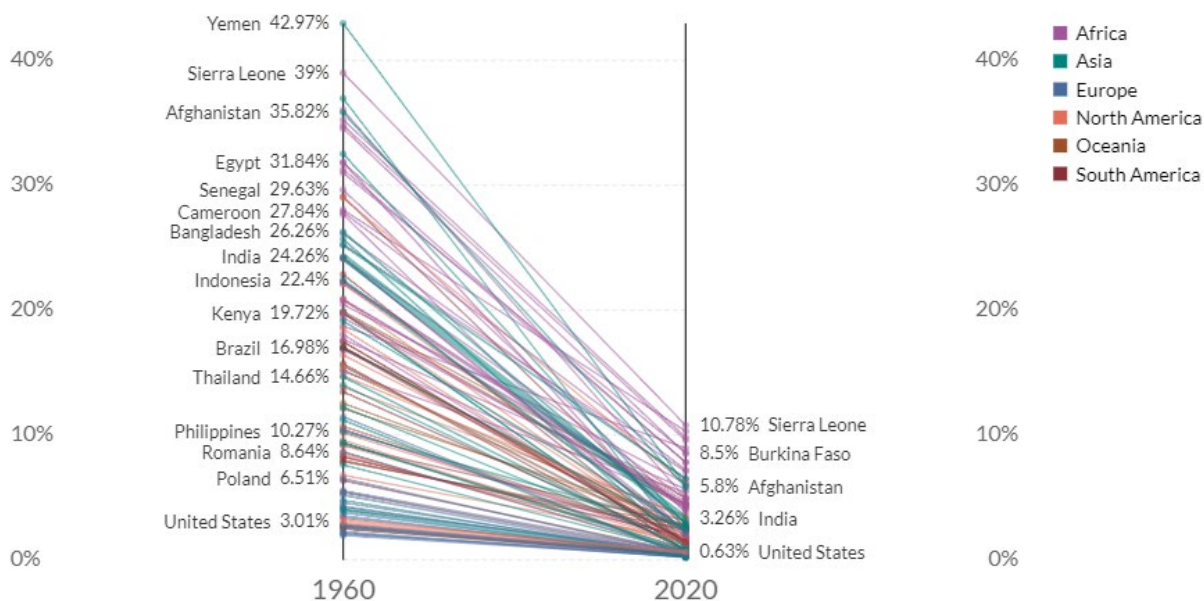
## VISUAL – 4:

### Child mortality rate, 1960 to 2020

The child mortality rate is the share of children who die before reaching the age of five.



Select countries



Source: UN Inter-agency Group for Child Mortality Estimation (via World Bank)

OurWorldInData.org/child-mortality • CC BY



Figure 8: Child Mortality Rate from 1960 to 2020



## My replicated visual in Tableau:

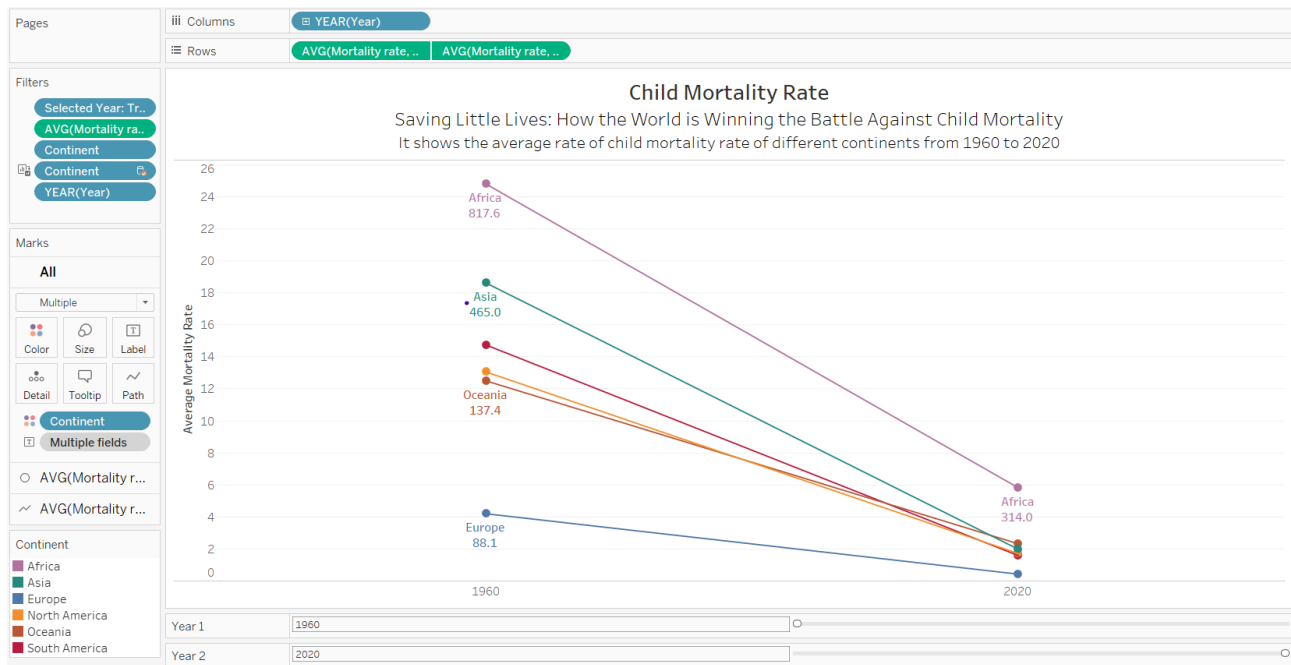


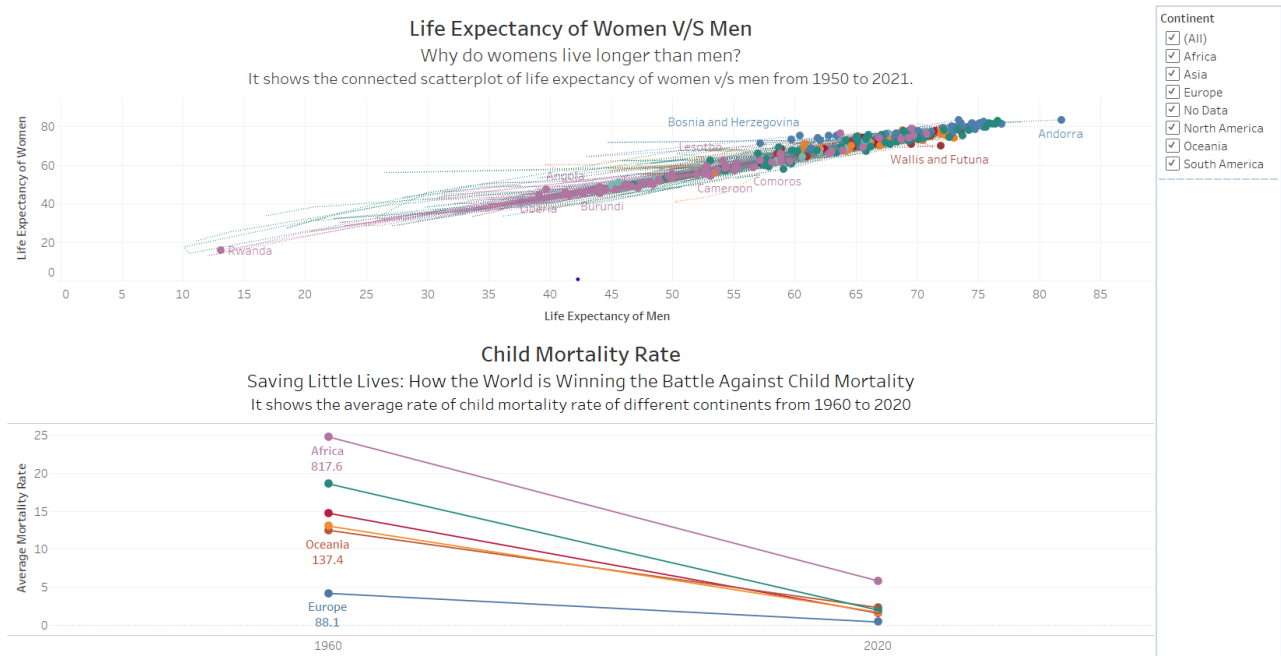
Figure 9: Replicated Child Mortality Rate from 1960 to 2020 using Tableau

**Brief Description:** The child mortality rate is the share of children who die before reaching the age of five. The figure shows the slope chart of child mortality rate from 1960 to 2020. The Year 1 and Year 2 slider can be used to manipulate and play between the years.

**Change:** The original graph used the Entity (Country) as the filter, but I used Continent as filter because it was looking too clumsy. To avoid this clumsiness, I used continent, but the intention of the graph is same.

**Reference:** <https://ourworldindata.org/grapher/child-mortality-1990-vs-latest-slope>

## DASHBOARD – 2:



*Figure 10: Dashboard No. 2*

**Usage:** The continent list will help to filter both connected scatter plot and slope chart for their respective continent.