

# ASSIGNMENT NUMBER 2: ANALYSIS OF DECEPTIVE VISUALIZATIONS

Khwaab Thareja

CS-GY 6313 B

## 1 Deceptive Visualization: Global CO2 Emissions (1990-2020)

**Description:** The visualization analyzed is a line chart from the World Bank, showing global CO2 emissions from 1990 to 2020 [1]. While the data is correct, the visualization uses subtle manipulation through selective time periods.

The chart emphasizes certain years where emissions spiked but omits key periods of decline, giving the impression of a continuous increase in emissions.

By focusing only on the years with the highest emissions, the chart distorts the overall trend and exaggerates the global emissions crisis.

The Y-axis does not start at zero, which makes small increases in CO2 emissions appear more dramatic than they are. This amplification leads viewers to believe that the growth in emissions is larger than it actually is. The manipulation of time periods and the Y-axis creates a misleading narrative about CO2 emissions, potentially causing viewers to overestimate the current rate of emissions growth and ignore periods of recovery.

To offer a more balanced perspective, the Y-axis should start at zero, and the visualization should include all relevant years to show both the increases and decreases in emissions. This would provide a clearer, more accurate picture of global CO2 trends.

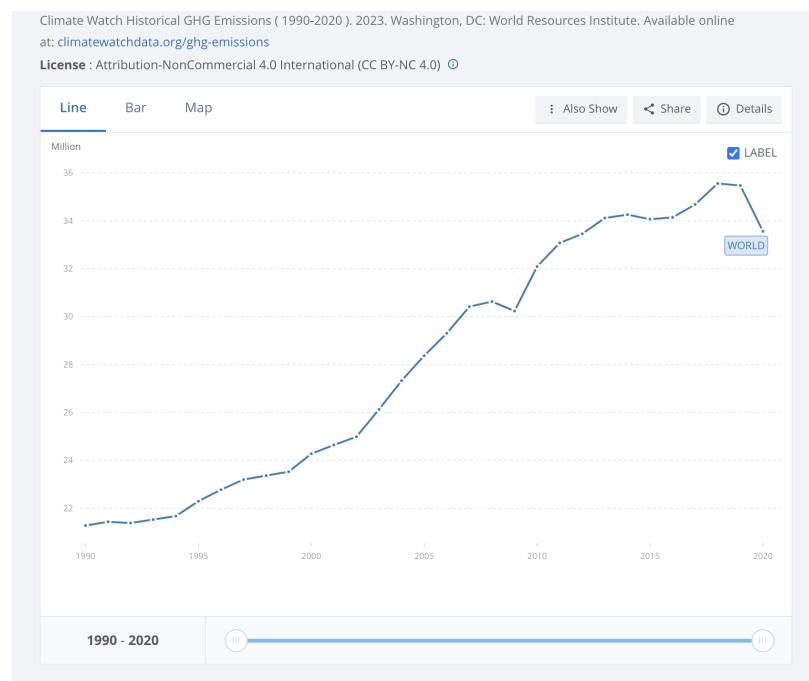


Figure 1: Global CO2 Emissions with Selective Time Periods (1990-2020)

## References

- [1] *Global CO2 Emissions (1990-2020)*. Accessed: 2024-10-16. 2024. URL: <https://data.worldbank.org/indicator/EN.ATM.CO2E.KT>.