Impact of Climate Change on Natural Disaster Frequency in the 20th Century

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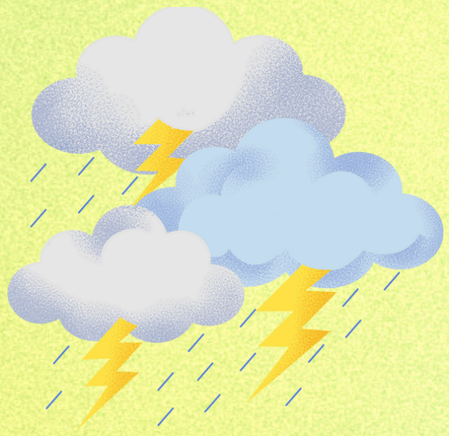
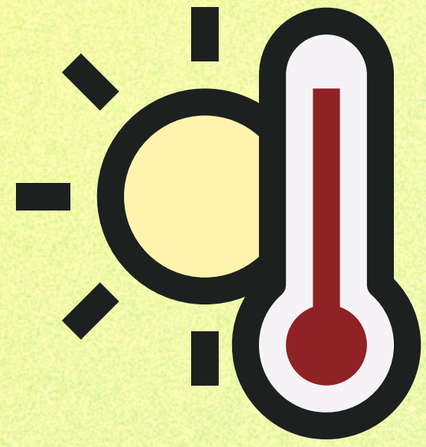
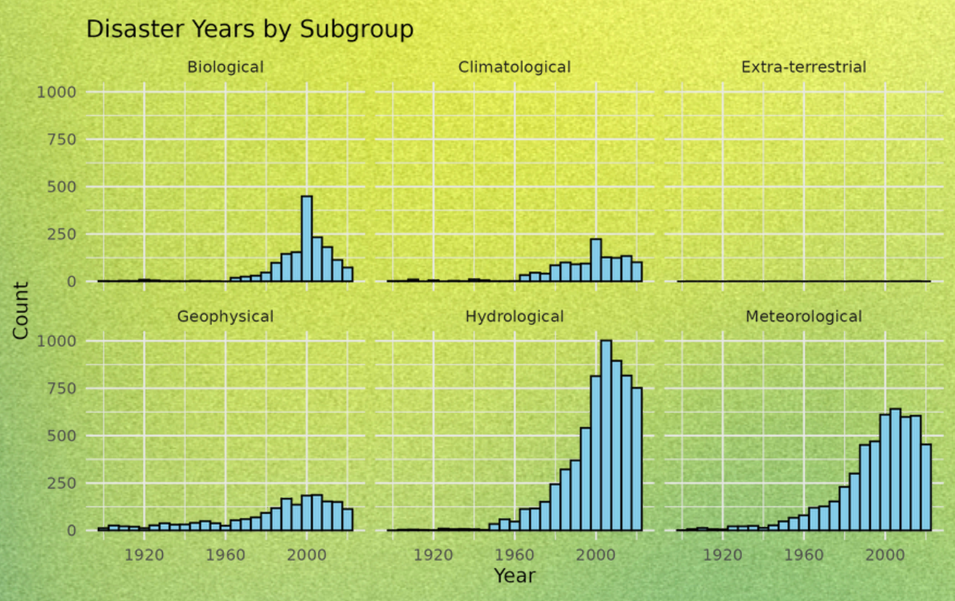
To assess the impact of a global increase in temperature on the frequency of natural disasters, we examined the characteristics of all natural disasters of the 20th century. While our visualizations illuminate the global rise in natural disaster frequency, they also outline the diversity of challenges faced by the people of different regions.

Types of Natural Disasters:

- Biological: disease outbreaks and insect infestation
- Climatological: droughts, wildfires, and glacial lake outbursts
- Extra-terrestrial: meteor, asteroid, and comet strikes
- Geophysical: earthquakes, volcanic activity and dry-mass movement
- Hydrological: floods and landslides
- Meteorological: storms and extreme temperatures

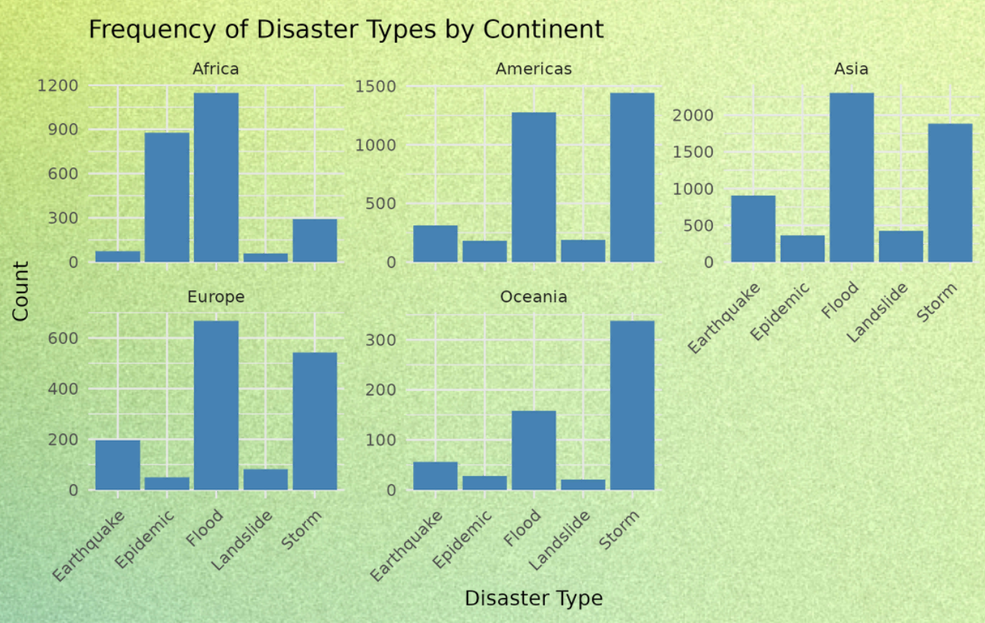


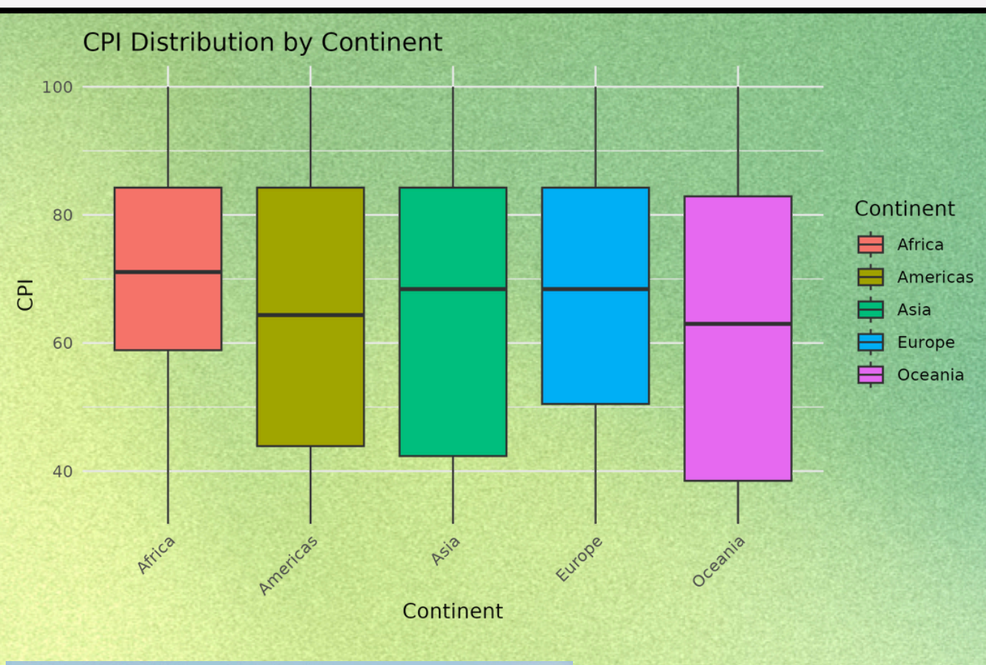




This faceted histogram displays the frequency of natural disaster subgroups over the last century . The data displays a general positive trend across all disaster types with a peak just after the year 2000. It is clear that floods, hurricanes, droughts, and all other natural disaster types have seen an increase in frequency over the last century.

This figure consists of five bar plots, each representing the frequency of a natural disaster subgroup in a different continent. Floods occur with the highest frequency across most continents, while Africa experiences more epidemics than any other country. Across Europe, the Americas, and Oceania, storms occur at a high frequency as well. This data can give us a sense of the unique difficulties presented to each continent with natural disasters becoming increasingly frequent.





This box and whisker plot compares Community Preparedness Index (CPI) data across 5 continents. CPI is a metric that is used to rate a region's ability to serve struggling communities in a disaster and the level of infrastructure in place to assist in these efforts. This graph illuminates the average CPI of each continent in natural disasters.

Increase in global temperature

Stronger storms and higher sea levels

Increase in frequency and intensity of disasters