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Climate Change Data Visualization

The world today is undergoing changes in climate, these changes are undeniably a combination of natural and manmade forces. Many groups and individuals speak of climate change as a political issue, whereas it should rather be seen as an objective and unchanging fact about Earth.

This body of work is aimed to uncover and display some of the relationships between annual climate indicators such as **Temperature, Precipitation, Atmospheric CO2 (and other greenhouse gases), Major Catastrophes, and Forest Cover Gain/Loss** across Earth's history. The hope is that this project may display climate change as an objective event, separated from political ideologies.

Rationale: By displaying climate change objectively in an appealing way, designed for human understanding, this may support a movement towards a more sustainable future on Earth. As a species, we must begin to think of the very real effects that we have on Earth's climate, and by showing the relationships which affect climate, we may begin action towards designing ways of living which support balance in the climate in order for us to continue living and progressing comfortably.

This work is motivated by the exposure to the lectures of Climate Change (GGR314) at the University of Toronto which attempts to show the interrelated elements and systems which govern the climate, and to see how we as humans affect it, and can design a future with that understanding.

Dataset Links:

Annual Global Temperature & Precipitation:
https://www.kaggle.com/noaa/noaa-global-historical-climatology-network-daily
NOAA Station Meta-Data: http://doi.org/10.7289/V5D21VHZ
Annual Global Greenhouse Gas (GHG) emissions:
https://ourworldindata.org/co2-and-other-greenhouse-gas-emissions
Annual Global Disasters: https://ourworldindata.org/natural-disasters

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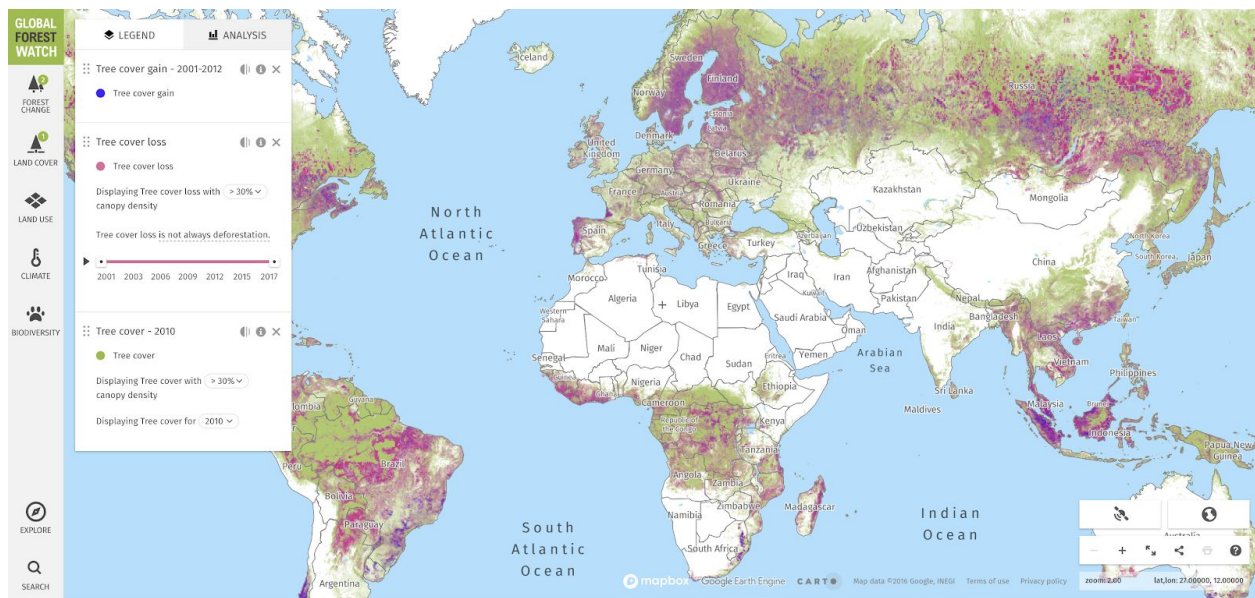
Inspiration:

Note: I am not attempting to replicate the following example websites, but rather, to find a design which maximizes human understanding, rather than catering only to people that are already knowledgeable or invested in these topics and issues.

Global Forest Watch:

https://www.globalforestwatch.org/map?map=eyJ6b29tIjoyLCJjZW50ZXIiOnsibGF0IjoyNywibG5nIjoxMn0sImNhbkJvdW5kIjpmYWxzZSwiYmJveCI6bnVsbH0%3D

Supporting Visualizations:

https://earther.gizmodo.com/a-new-visualization-turns-global-warming-into-pop-art-1828625479