

Climate change. How are we affect the wor..	Global CO2 Emissions	CO2 Produced by Country 2000 vs 2020	CO2 Emission Share Sources	Energy Use by Country (kWh) 2000 vs 2019	Global Temperature	Land Ice Mass / Sea Level R..
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CLIMATE CHANGE



An Analysis of How Human Behavior has Impacted the World, Its Consequences and Key Strategies to Reduce this Phenomenon to Improve Earth's Life.



Climate change. How are we affecting the world..

Global CO2 Emissions

CO2 Produced by Country 2000 vs 2020

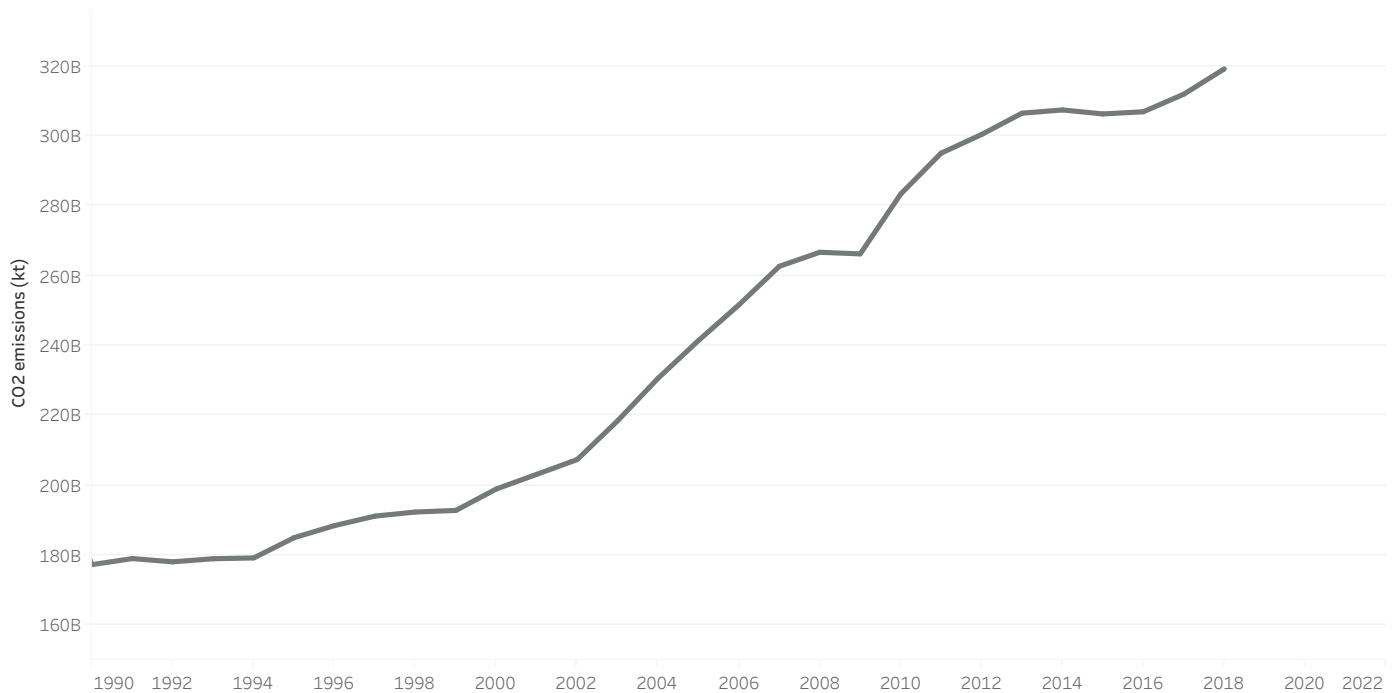
CO2 Emission Share Sources

Energy Use by Country (kWh) 2000 vs 2019

Global Temperature

Land Ice Mass / Sea Level R..

CO2 Emissions (Billions KT) Global



Excessive CO2 provokes a cover that contains the sun's heat energy in the atmosphere, elevating the temperature in the planet. An increase in CO2 tweaks the Earth's climates by producing changes in weather patterns.

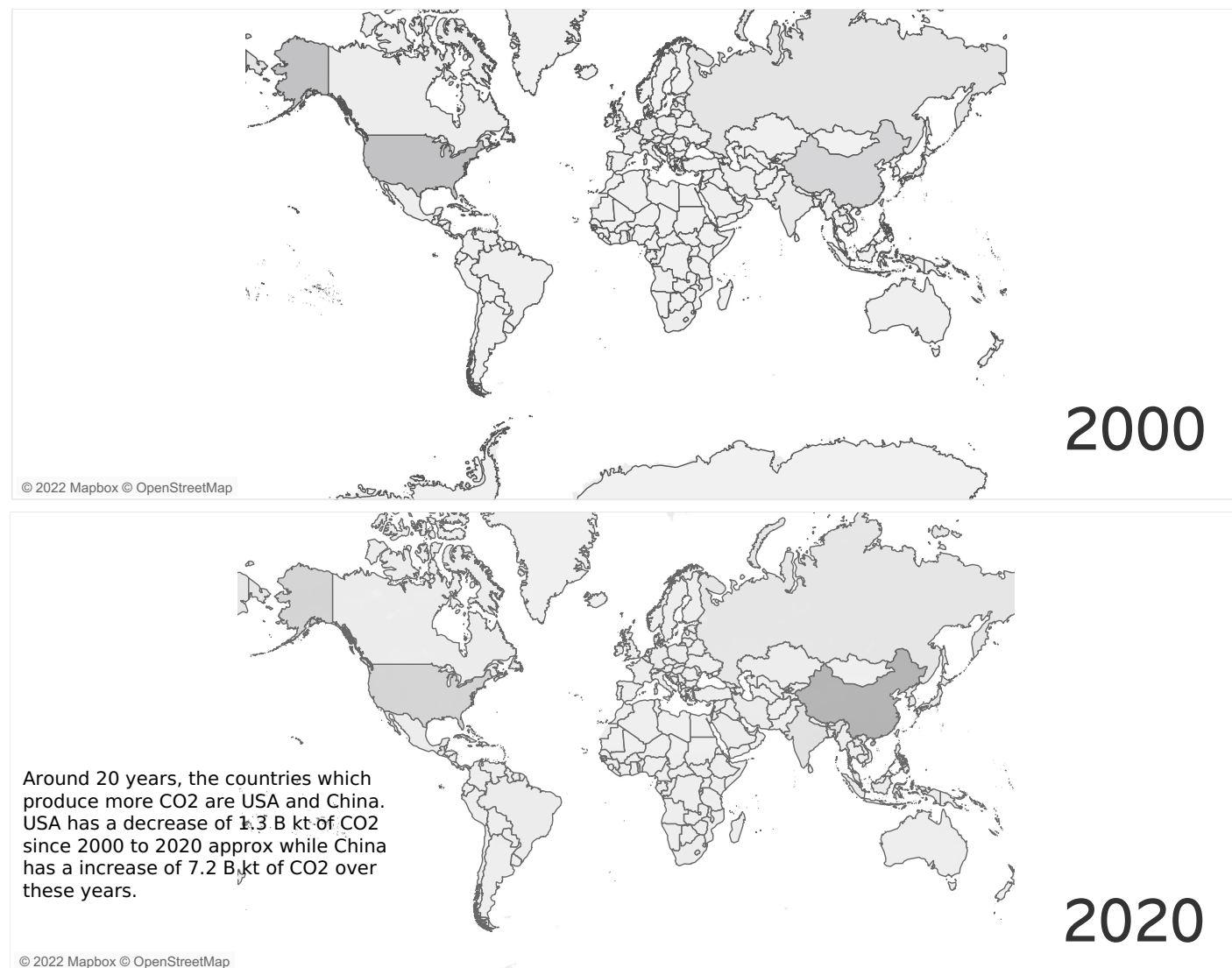
The chart above shows us the global emission of CO2 over the years. It is measured in KT (Kiloton)

1 kt = 1,000 tons.

We observe an excessive increase over the years, increasing 22B kt of CO2 since 1990 to..

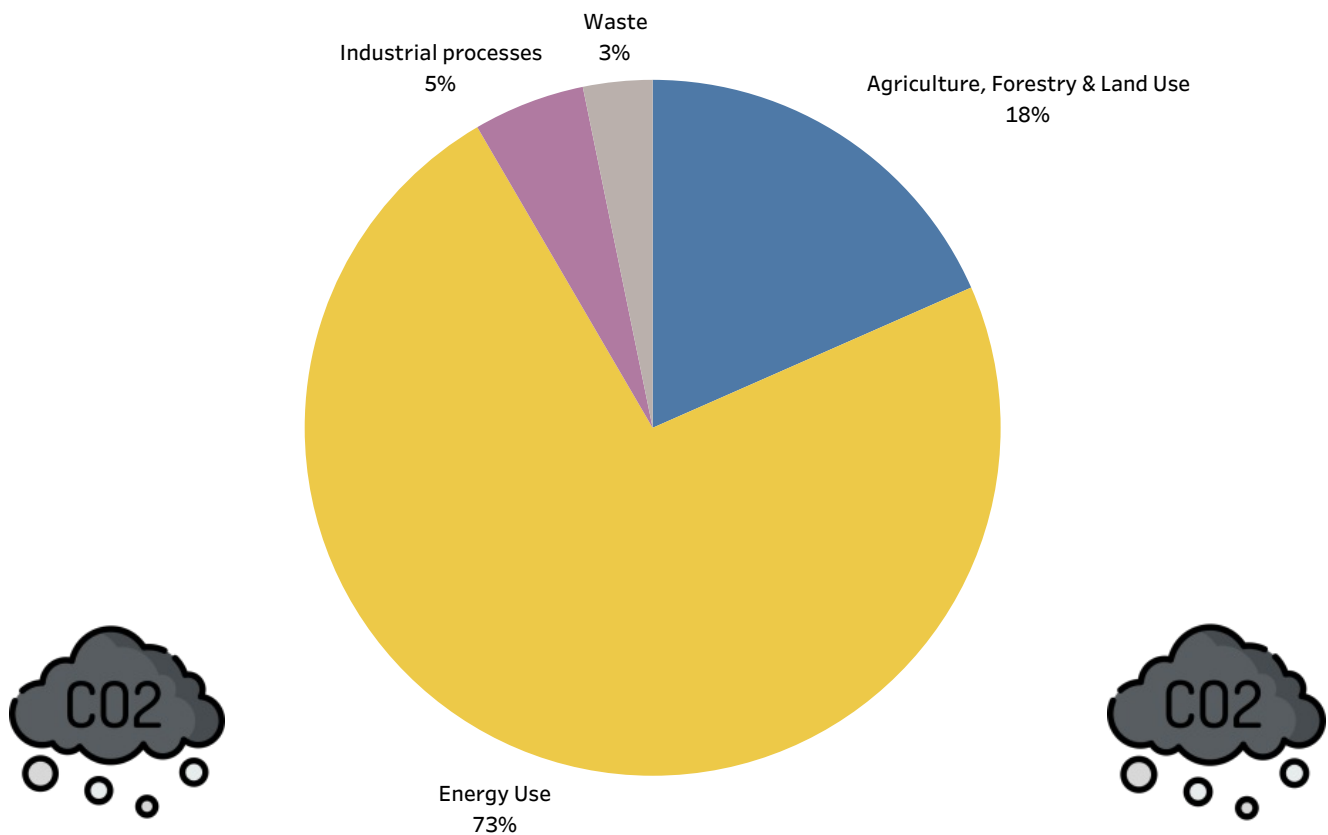


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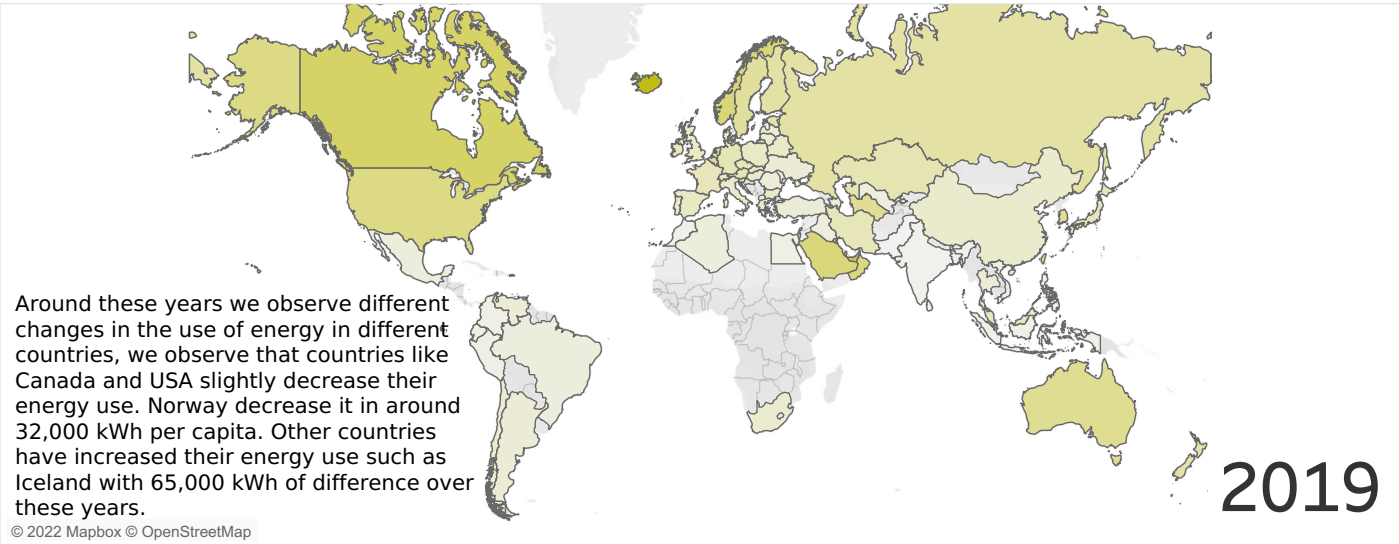
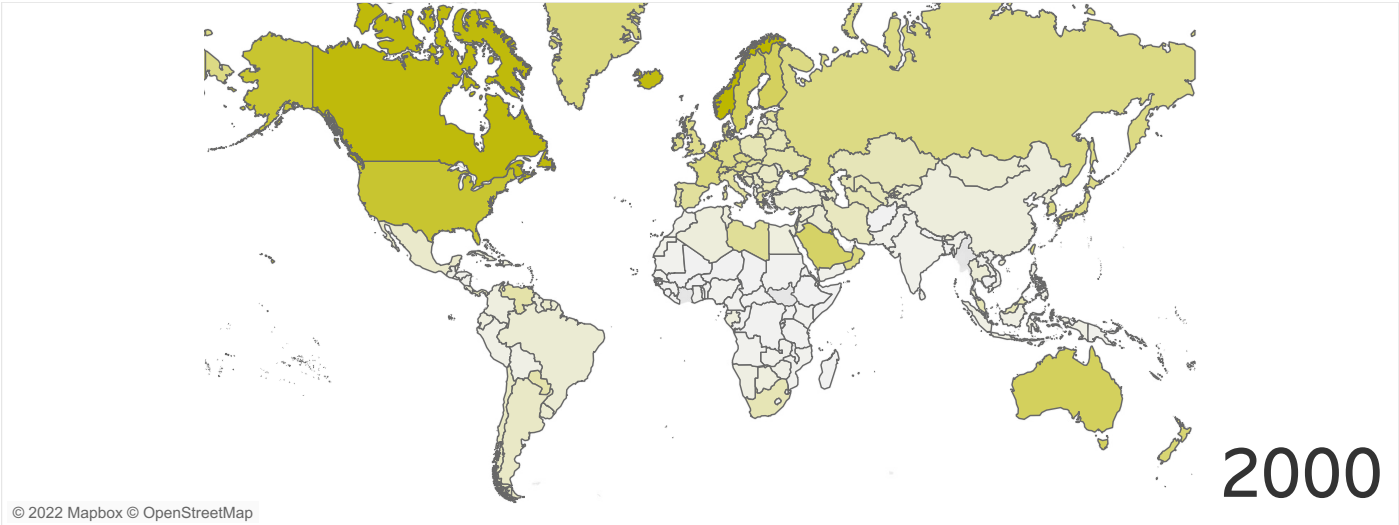
Climate change. How are we affe..	Global CO2 Emissions	CO2 Produced by Country 2000 vs 2020	CO2 Emission Share Sources	Energy Use by Country (kWh) 2000 vs 2019	Global Temperature	Land Ice Mass / Sea Level Rise
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CO2 Emission Share



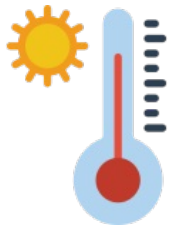
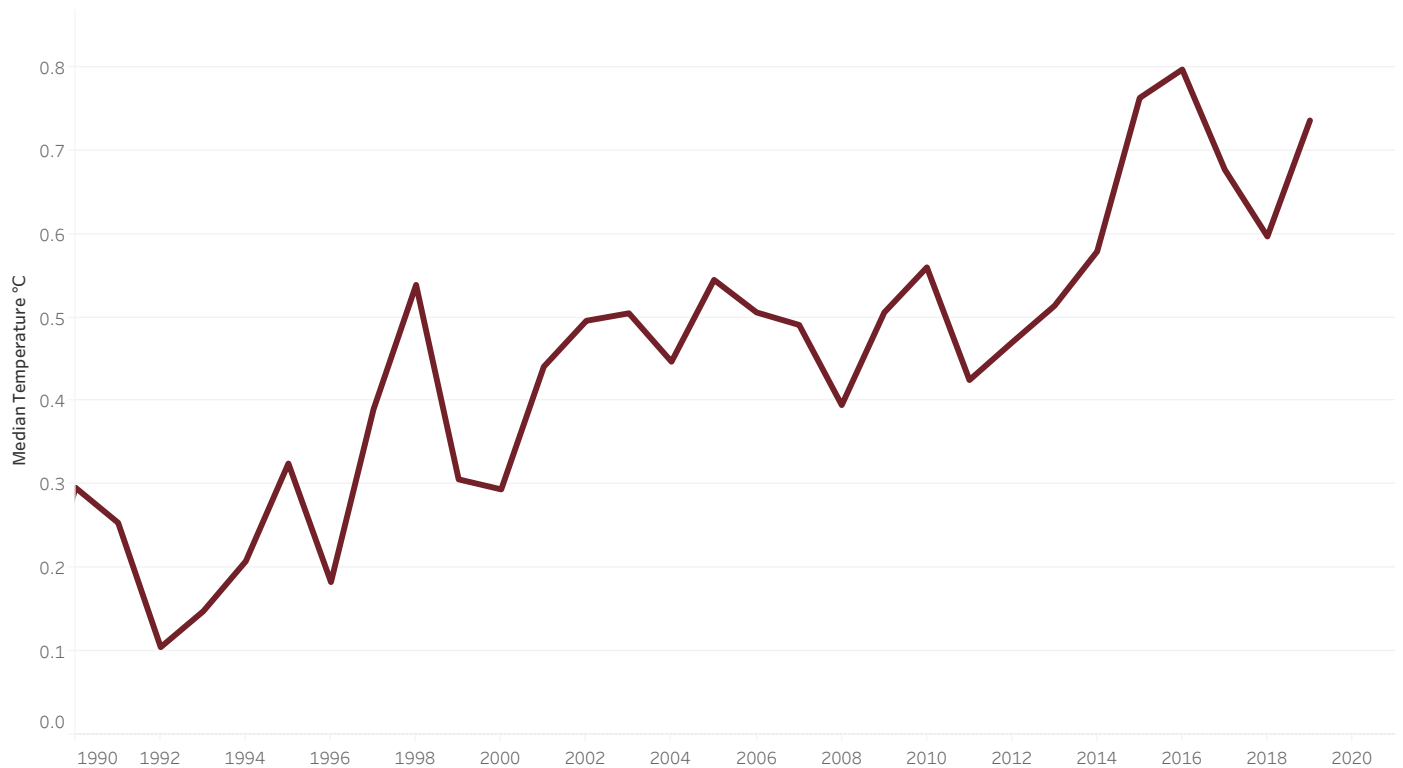
According to the chart above we can observe the important role the energy plays in producing CO₂, impacting the climate change since it almost represents the 3/4 of emission of CO₂ globally compared with Industrial processes, waste and agriculture, forestry and land use that represent the other 1/4 of CO₂ emitted. Therefore, we will analyze more about this source of CO₂.

Global CO2 Emissions	CO2 Produced by Country 2000 vs 2020	CO2 Emission Share Sources	Energy Use by Country (kWh) 2000 vs 2019	Global Temperature	Land Ice Mass / Sea Level Rise	USA Glaciers Mass Loss
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CO2 Produced by Country 2000 vs ..	CO2 Emission Share Sources	Energy Use by Country (kWh) 2000 vs 2019	Global Temperature	Land Ice Mass / Sea Level Rise	USA Glaciers Mass Loss	Deforestation
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Global Temperature °C

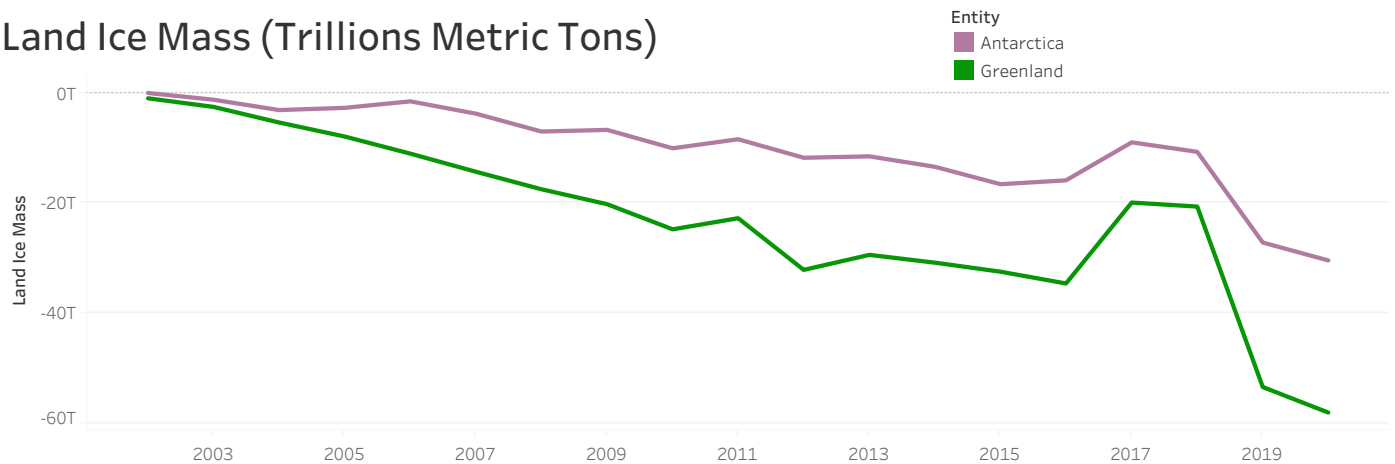


As we said before, when the carbon dioxide concentration goes up, temperature goes up.

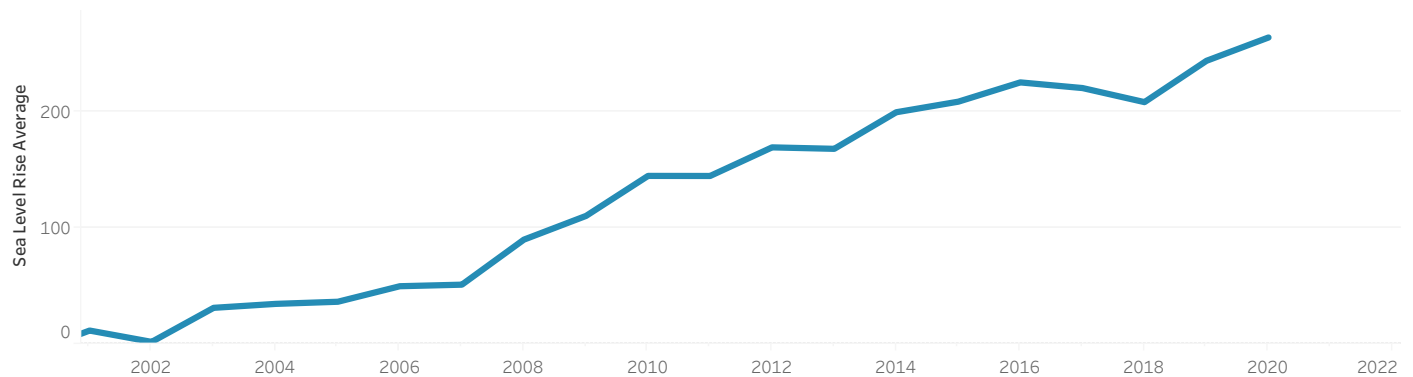
This graph shows the global temperature over the years as an effect of the excessive production of CO₂. We observe that some years have a decrease in global temperature compared with the previous one like 2011 compared to 2010 with 0.14 °C of difference, but it is important to remark that the tendency is that it is increasing over the years, raising 0.44°C since 1990 to 2019.

CO2 Emission Share Sources	Energy Use by Country (kWh) 2000 vs 2019	Global Temperature	Land Ice Mass / Sea Level Rise	USA Glaciers Mass Loss	Deforestation	What can we do? Main strategy
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Land Ice Mass (Trillions Metric Tons)



Sea Level Rise (Millimeters)

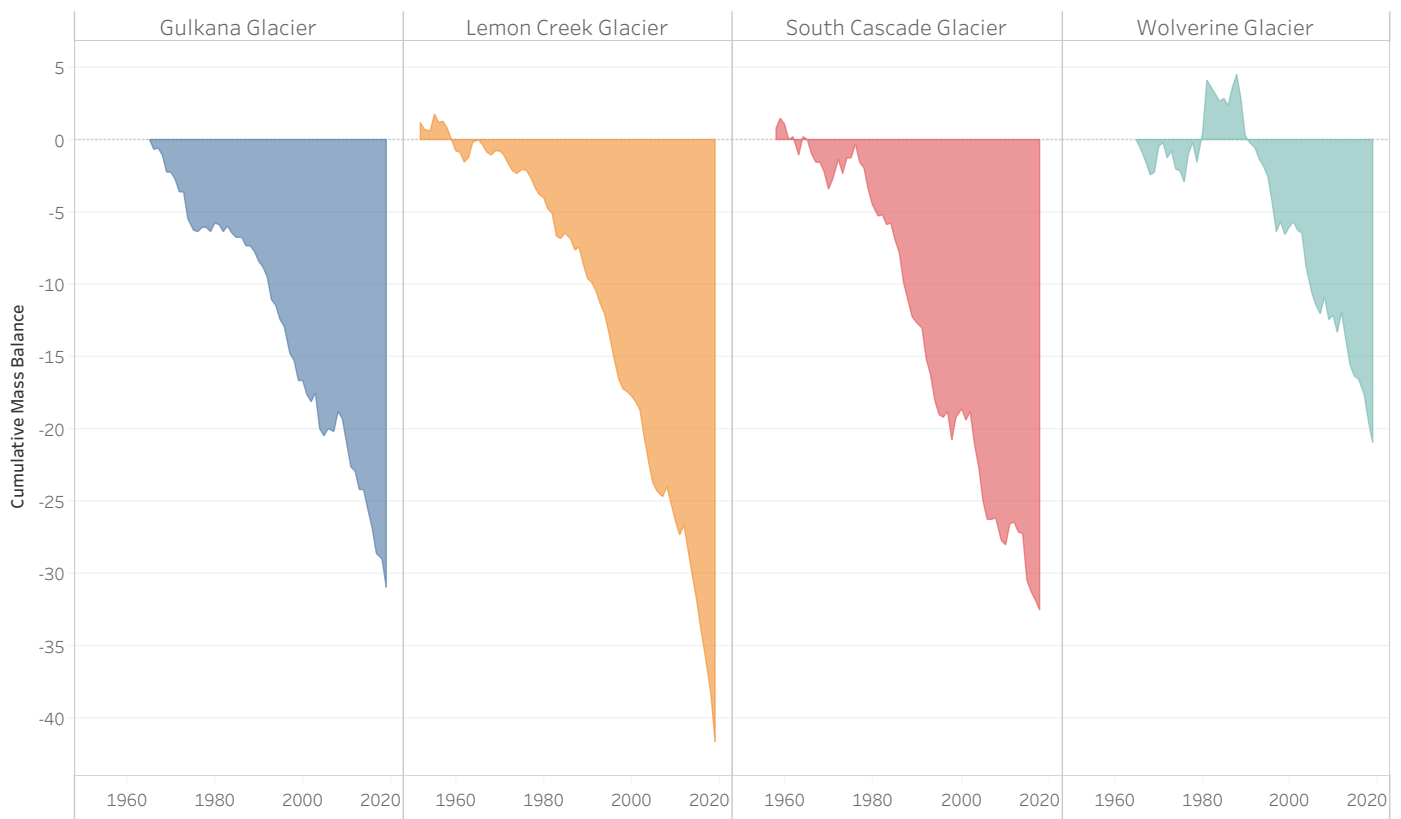


The Greenland and Antarctic ice sheets are the largest contributors of global sea level rise. Right now, the Greenland ice sheet is disappearing four times faster than in 2003 and already contributes 20% of current sea level rise.

1 trillion metric tons is equal to about 260 cubic miles of ice.

Greenland has lost approx 58 trillions metric tons of ice mass since 2003 to 2020 while Antarctic 30 trillions approx. As a consequence the sea level has raised around 230 mm since 2003.

Glaciers Mass Loss (Meters of Water)



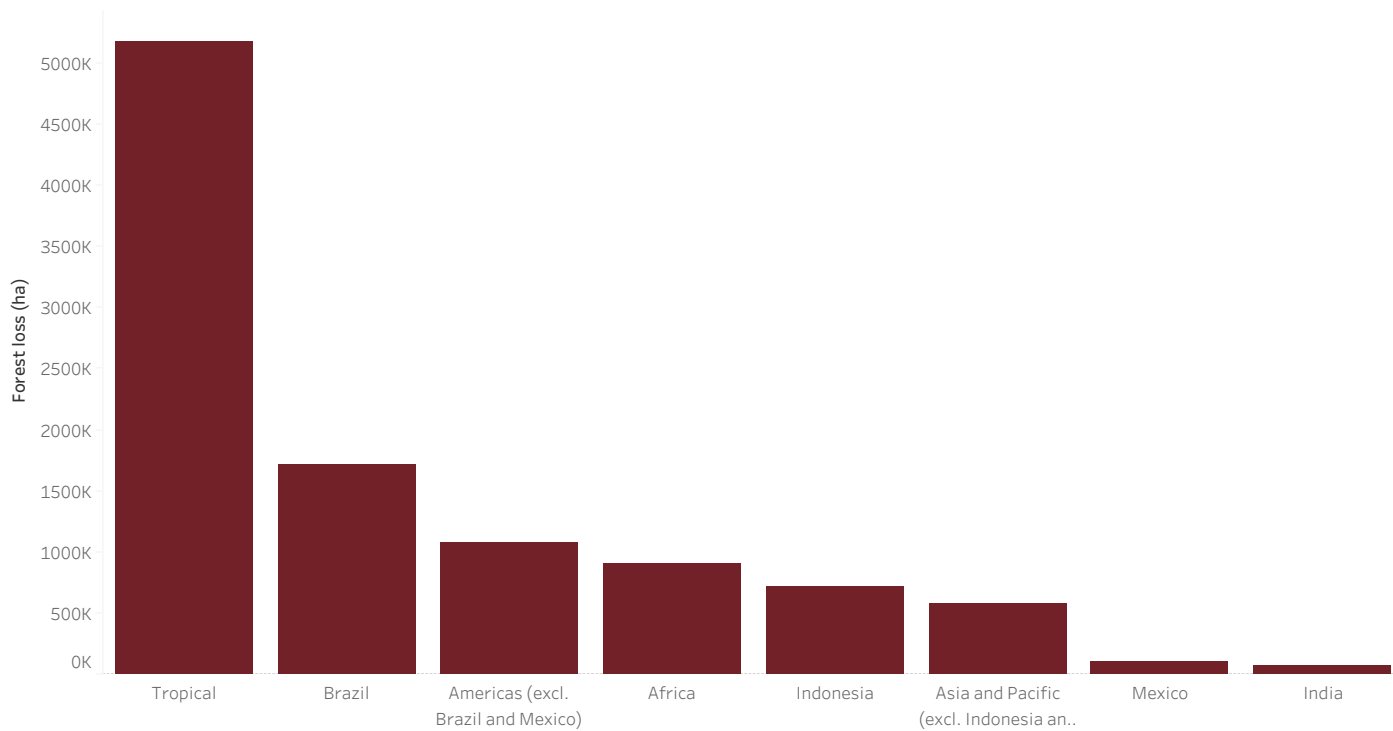
Also, as consequence of the temperature elevation, many glaciers around the world have been rapidly melting.

This charts shows us some of the glaciers that have been affected for this phenomenon, also impacting the sea level. This is given in meters of water equivalent, which represent changes in the average thickness of a glacier.

Lemon Creek Glacier suffered the biggest mass loss with 41m lost until 2020, following it the South Cascade Glacier with around 33m of mass loss until 2020.

Energy Use by Country (kW..	Global Temperature	Land Ice Mass / Sea Level Rise	USA Glaciers Mass Loss	Deforestation	What can we do? Main strategy	References
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Deforestation (Hectares)



Another important factor which negatively affects the climate is deforestation. The lack of trees also allows a greater amount of greenhouse gases to be released into the atmosphere. Healthy forests absorbing CO2 from the atmosphere, acting as valuable carbon sinks.

This graph illustrates how many hectares have suffered deforestation in 2020 in different areas, we observe that the tropical countries have taken around 5 million ha of trees, and only Brazil has taken 1.7 million ha of trees making it the country with the biggest amount of deforestation.

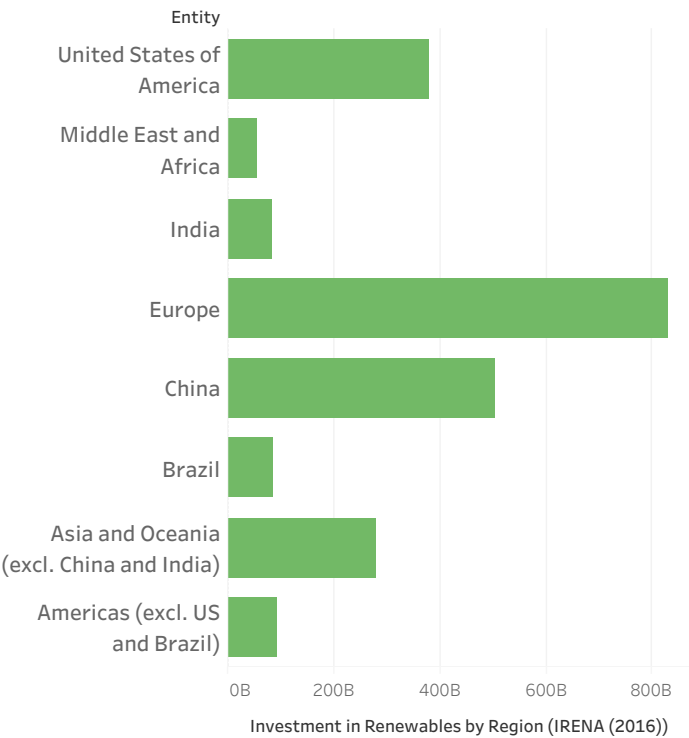


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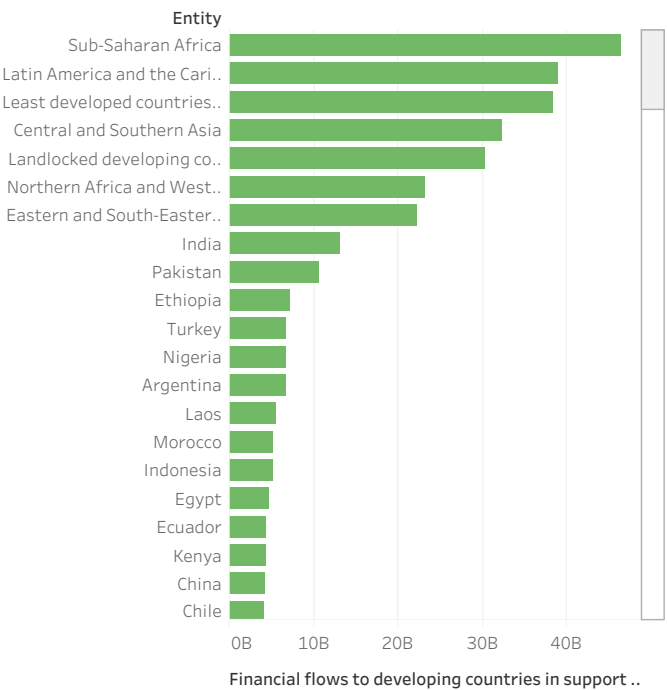
What Can We Do?

Both government and big corporations play the most important role in the climate improvement by investing, developing and using clean energies as alternative methods to create energy. Likewise, donating resources to other developing countries and corporations is key to reach this goal since global climate affects everyone and everything. The next charts represent these important roles, we observe that China is the country with the biggest investment in renewable energy in 2016 with around 505 billions dollars followed by USA with 380 billions dollars. Europe invested 832 billions dollars but taking into consideration multiple countries such as France, Germany, UK and Portugal. We notice that Sub-Saharan Africa and Latin America and the Caribbean are the regions with the biggest financial flow for clean energy development with 46 billions and 39 billions of dollars respectively. ..

Investment in Renewable Energy (Dollars)



Financial Flows to Developing Countries for Clean Energy Development (Dollars)



Energy Use by Country (kW..	Global Temperature	Land Ice Mass / Sea Level Rise	USA Glaciers Mass Loss	Deforestation	What can we do? Main strategy	References
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