

Action Cards

Humans drive cars

Every liter of gas puts 2.35 kg of CO_2E into the atmosphere (18.8 lbs per US gallon).

(Add one CO_2E molecule)



Humans drive more cars

In 1908 Ford built the Model T car. Between 1908 and 1928, 15 million were sold. Today, an estimated 1 billion cars are in use worldwide.



(Add two CO_2E molecules)

Humans cut down trees

Trees remove CO_2E from the atmosphere during photosynthesis. Fewer trees means more CO_2E is released.

(Add four CO_2E molecules.)



Humans use electricity powered by fossil fuels for their homes and factories

About 50% of all carbon dioxide emissions is from electricity and heat production

(About five CO_2E molecules.)



1,000 individuals switch to energy efficient light bulbs

Lighting is nearly 19% of all CO_2E emissions. Efficient light bulbs may save about 80% on energy consumption. For 1,000 individuals, that might stop around 2,000 tons of carbon dioxide from being emitted.

(Remove one CO_2E molecule.)



200 individuals organize and force a single power station to switch from coal to a renewable energy source

An average 500 megawatt power station produces 10,000 MW tons of sulphur dioxide, 10,000 nitrogen oxide and over 3 million tons of carbon dioxide. Switching to renewable saves all of that.

(Remove three CO_2E molecules.)



Individuals ride bikes more

Riding a bike is the most energy efficient form of transportation, and it's fun! One research showed that a quarter million people riding bikes in a major US city saved 47,000 tons of carbon dioxide from being emitted from cars.

(Remove one CO_2E molecule.)



Individuals force governments to outlaw fossil fuel companies

A massive uprising forces governments to make it illegal to dig into the ground and rip out more oil and natural gas and coal. That could easily stop billions of tons of carbon dioxide from going into the air.

(Remove five CO_2E molecules.)



Humans create energy efficient technologies

The first rooftop solar array was installed in 1883. We have had the technology but not the political will to make rapid changes in our electrical system. The fossil fuel companies control our government's policies. The result is 1.8% of global power is from solar.

(Remove one CO_2E molecule.)



Government banks stop all subsidies to fossil fuel companies and invest in

renewable energies

Another mass uprising changes the calculus of fossil fuel companies: it no longer pays to pour more CO_2E into the atmosphere.

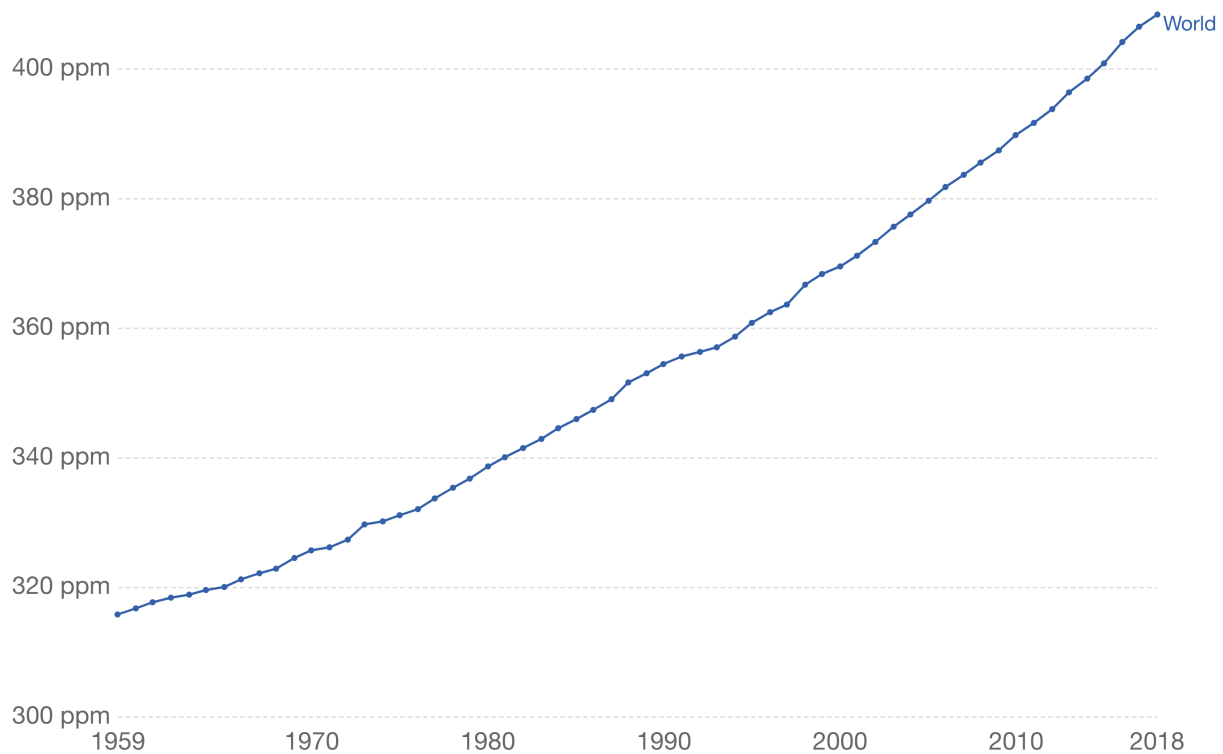
(Remove five CO_2E molecules.)



Global CO₂ atmospheric concentration

Global mean annual concentration of carbon dioxide (CO₂) measured in parts per million (ppm).

Our World
in Data



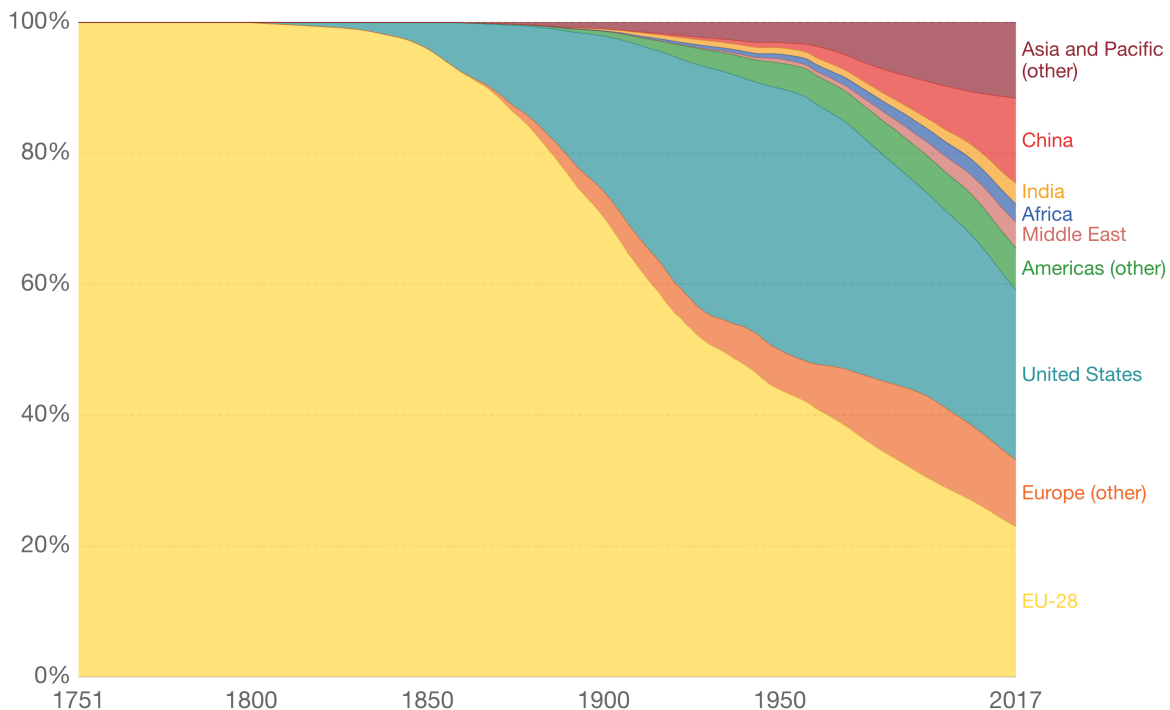
Source: NOAA/ESRL (2018)

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Cumulative CO₂ emissions by world region

Cumulative carbon dioxide (CO₂) emissions by region from the year 1751 onwards. Emissions are based on territorial emissions (production-based) and do not account for emissions embedded in trade.

Our World
in Data

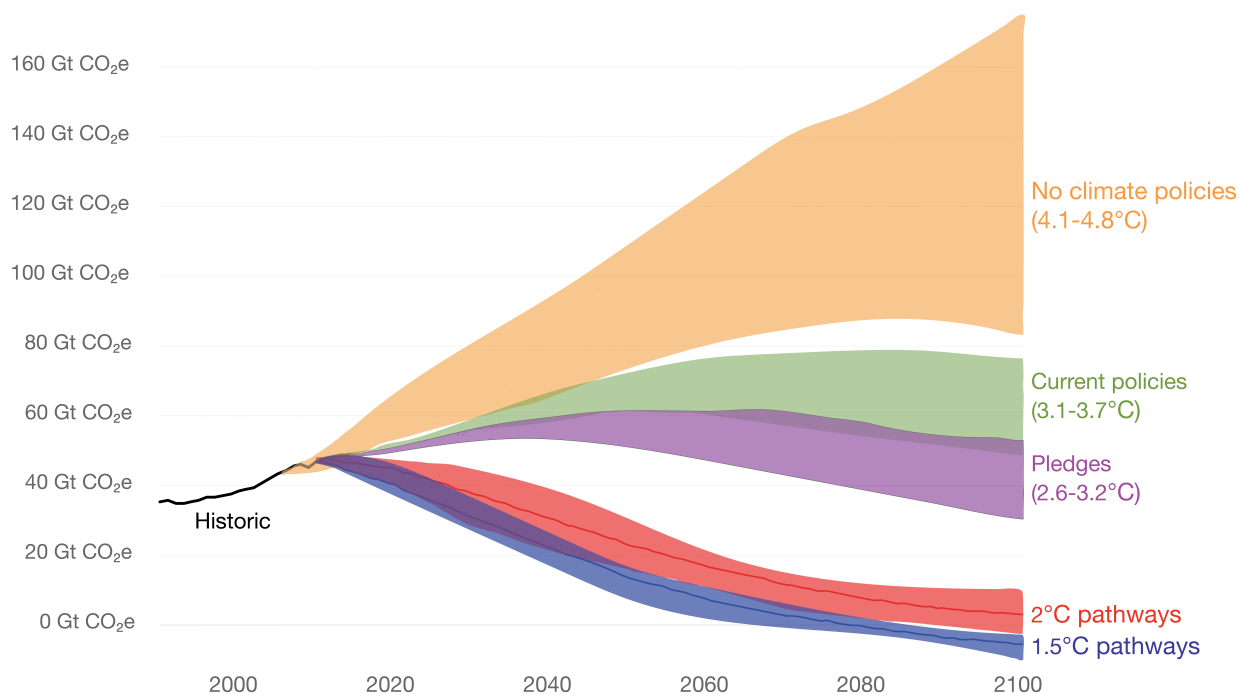


Source: OWID based on CDIAC & the Global Carbon Project (2018)

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Global greenhouse gas emissions scenarios

Potential future emissions pathways of global greenhouse gas emissions (measured in gigatonnes of carbon dioxide equivalents) in the case of no climate policies, current implemented policies, national pledges within the Paris Agreement, and 2°C and 1.5°C consistent pathways. High, median and low pathways represent ranges for a given scenario. Temperature figures represent the estimated average global temperature increase from pre-industrial, by 2100.



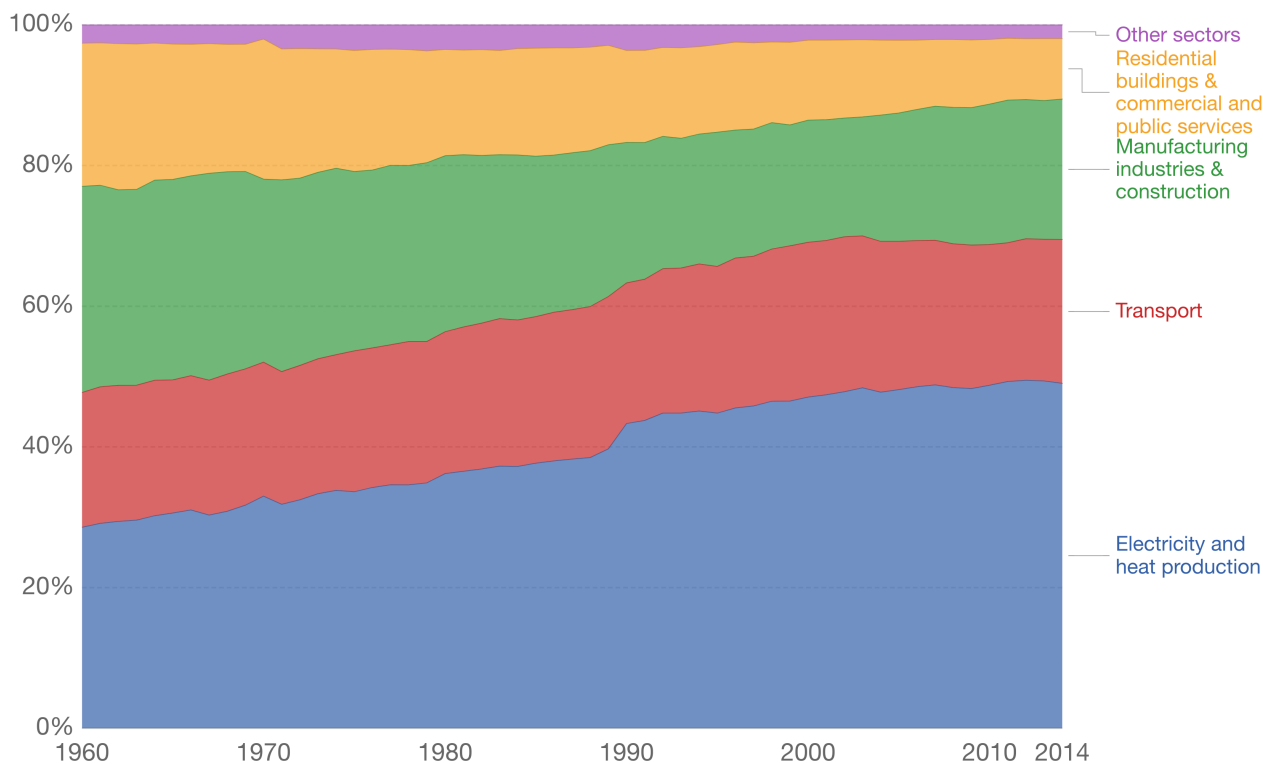
Based on data from the Climate Action Tracker (CAT).

The data visualization is available at OurWorldinData.org. There you find research and more visualizations on this topic.

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Carbon dioxide (CO₂) emissions by sector or source, World

Share of carbon dioxide (CO₂) emissions from fuel combustion by sector or source.



Source: International Energy Agency (IEA) via The World Bank

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