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Scientific proof that CO₂ does NOT cause global warming

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Abstract

Millions of tons of industrial Sulfur Dioxide (SO₂) aerosol pollutants (which dim the incoming solar radiation) were introduced into our atmosphere between 1950-1980. Because of Acid Rain and Health concerns, legislation to reduce their levels was first introduced in 1971, with their effect becoming evident by 1980, when temperatures began to rise because of the less-polluted air. However, this temperature increase has been wrongly attributed to rising levels of CO₂ in the atmosphere, and the INEVITABLE warming from the decrease of millions of tons of aerosol pollution has been totally ignored. It can therefore be stated that CO₂ has NO climatic effect, and all efforts to reduce them need to be abandoned as soon as possible. This will have an extremely positive world-wide effect.

However, to avoid future temperature increases, it will be necessary to avoid future reductions in industrial SO₂ aerosol levels (if not already too late).

Keywords: Climate Change; SO₂ aerosols; CO₂; Global warming

1. Introduction

World-wide, trillions of dollars are being spent to reduce the amount of CO₂ in our atmosphere, in the belief that rising amounts of it pose an existential threat to mankind, because of its hypothesized ability to cause temperatures to increase.

There is, however, an alternative, falsifiable (empirically testable) explanation for our modern (since circa 1980) warming, which has been tested and validated hundreds of times by both nature and man. This is discussed below:

Consider the fact that whenever there is a VEI4 or larger volcanic eruption somewhere around the world, average anomalous global temperatures always decrease. This is because they spew sulfurous gasses into the stratosphere, where they are converted into the SO₂ aerosol, a mist of micron-sized droplets of Sulfuric Acid, H₂SO₄.

In addition to volcanic activity, man-made SO₂ aerosols are also produced by the burning of fossil fuels, primarily through industrial activity.

In the NASA fact sheet on aerosols “Atmospheric Aerosols: What Are They, and Why Are They So Important?”, they state that volcanic SO₂ aerosols “reflect sunlight, reducing the amount of energy reaching the lower atmosphere and the Earth’s surface, cooling them”. Regarding human-made sulfate aerosols from the burning of fossil fuels, they state that “They absorb no sunlight, but they reflect it, thereby reducing the amount of sunlight reaching the Earth’s surface”. [1] Therefore, their climatic effects are identical.

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When SO₂ aerosols are introduced into the troposphere, they combine with moisture in the air and cause “Acid Rain” (which kills vegetation and fish in small bodies of water), and the aerosols can also cause serious health problems. As a result, “Clean Air” legislation was introduced in the United States in 1971 to reduce the amount of industrial SO₂ aerosol emissions.

European SO₂ aerosol emissions, after beginning to rise in the 1950’s (as also in the U.S.) showed a steep decline after 1980, when they began tracking and reducing industrial SO₂ aerosol emissions.

Industrial SO₂ aerosol emissions into the troposphere are tracked by the Community Emissions Data System (CEDS), of the University of Maryland,[2], and others. The CEDS “gridded” data show that emissions peaked at 139 million tons in 1980, then began falling, as “Clean Air” efforts began to have an effect, dropping to 83 million tons in 2019 (latest CEDS data available), a decrease of 56 million tons, then, and even more by now. This huge decrease in SO₂ aerosol pollution HAD to have caused temperatures to rise, because the less polluted air increases the intensity of the solar radiation striking the Earth’s surface, causing increased warming. As a result, the claim that CO₂ is the cause of our modern warming cannot be true.

Since late 1979, satellites have been used to measure the amount of SO₂ injected into the stratosphere by VEI4 and larger eruptions. [3] For VEI4 eruptions, the median amount is 0.2 million tons, which causes approximately 0.2 deg. C. of temporary cooling until they settle out, 14-16 months later. After they have settled out, temperatures rise to pre-eruption levels, or a bit higher, because of the less polluted air, often causing an El Nino.

With a temperature increase of approximately 0.20 deg. C. for a decrease of 0.2 million tons of SO₂ aerosols, the warming due to the 56 million ton decrease noted above easily accounts for ALL of the warming since 1980.

According to HadCRUT5.0 [4], the Jan-Dec average anomalous global temperature was 0.196 deg. C, in 1980, and for 2023, it was 1.267 C. This represents a temperature rise of 0.1.07 deg. C. for a decrease of more than 56 million tons of SO₂ aerosols (or roughly, a .02 deg. C. temperature rise for each million tons of their decrease).

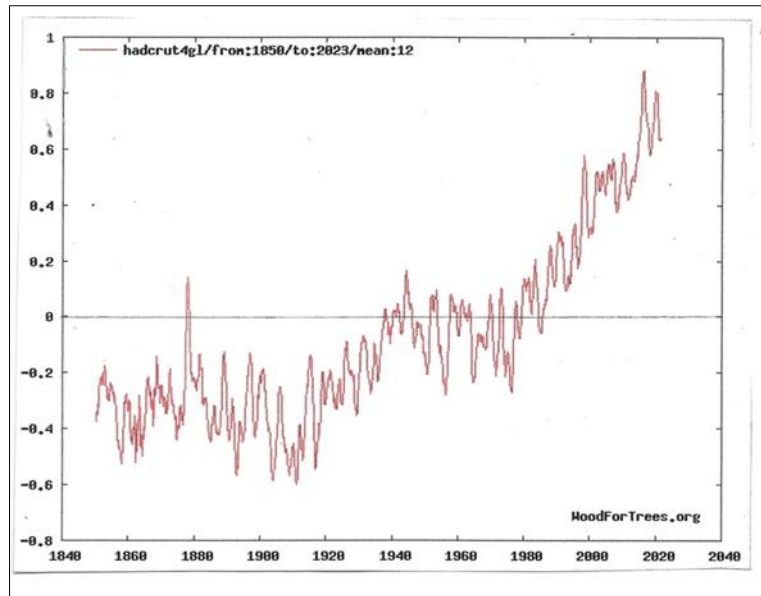


Figure 1 A WoodForTrees.org plot of Average Anomalous Global Temperatures, 1850-2023.

Figure 1 is a smoothed WoodForTrees.org plot of HadCRUT4 average anomalous global temperatures, for the years 1850-2023. Every increase or decrease in temperatures is due to an increase or a decrease in the global amount of SO₂ aerosols in the atmosphere, due either to volcanic eruptions or to industrial activity. Note that most of the temperature changes range between plus or minus 0.2 deg C.

The rising slope after 1980 is due to global “Clean Air” and Net-Zero activities that have reduced the amount of industrial SO₂ aerosols in the atmosphere. If those actions continue, millions of people will die because of droughts, heat waves, starvation, floods, fires, and other environmental disasters. They must be halted as soon as possible!

Unfortunately, we may already be at the point where it will be necessary to re-introduce SO₂ into our atmosphere to reduce temperatures, ideally harmlessly high over the Pacific Ocean El Nino-Southern Oscillation (ENSO) area, although occasional VEI4 volcanic eruptions will provide some temporary relief.

2. Conclusion

Analysis of the role of SO₂ aerosols in our atmosphere has shown that their reduction is responsible for all of the warming that has occurred since 1980, and that CO₂ can have no climatic effect. Abandonment of the current efforts to reduce or to prevent their increase in the atmosphere need to be implemented as soon as possible. This will have an immense benefit to our global society, which is suffering from the un-necessary, draconian efforts to control atmospheric CO₂ levels.

References

- [1] NASA Facts online (1996) "Atmospheric Aerosols: What Are They, And Why Are They So Important?"
- [2] Industrial SO₂ aerosols: <https://github.com/JGCRI/CEDS> Scroll down to CEDS, click on "emissions by country are archived here"
- [3] SO₂ aerosol monitoring program; [SO₂.gfsc.nasa.gov](https://so2.gfsc.nasa.gov)
- [4] HadCRUT5.0 temperatures: https://crudata.uea.ac.uk/cru/data/temperature/HadCRUT5.0analysis_gl.txt