

## **Controversial Technology Creating Unprecedented Rift Among Climate Scientists**

TIME Magazine, March 17, 2023

<https://time.com/6264143/geoengineering-climate-scientists-divided/>

### **A Controversial Technology Is Creating an Unprecedented Rift Among Climate Scientists,**

TIME Magazine, March 17, 2023

<https://time.com/6264143/geoengineering-climate-scientists-divided/>

Important: *This article was rewritten to make it easier for students to understand.*

Scientists study many things, but some experiments are considered too dangerous or unethical to try. For a long time, many scientists thought that putting chemicals into the air to cool the Earth, known as stratospheric aerosol injection (SAI), was one of those dangerous experiments.

Recently, there has been a push to research SAI more. The U.N. Environment Programme has called for more studies on geoengineering. The Biden Administration in the U.S. is planning a five-year research plan. Some researchers and tech industry people have already done small tests, even though many scientists are against it.

This debate is causing a big split among climate scientists. One side believes that not studying SAI might doom us because it could help cool the Earth. The other side thinks that studying it could lead to big problems, like changing weather patterns in unpredictable ways.

There is no single authority on what scientists should or shouldn't study. The answers usually come from agreements between governments, scientific organizations, and individual researchers. For a long time, most agreed that the risks of geoengineering were too high. They worried it could be used by rich countries to save their own land from rising sea levels but cause problems like droughts in poorer countries. They also feared it could lead to arguments between nations and even wars.

Geoengineering wasn't discussed much until the early 2000s when scientists like David Keith from Harvard started advocating for more research on it. More papers, books, and donations followed, especially from wealthy individuals like Bill Gates. By 2021, respected groups like the National Academies of Sciences, Engineering, and Medicine suggested that scientists should carefully research geoengineering.

Hansi Singh, a professor in Canada, said she was warned not to study geoengineering in 2016 because it could harm her career. Now, there's less fear because the climate situation is getting worse, and some think we might need geoengineering someday. But people like Jennie Stephens from Northeastern University think that only a small group with lots of money is pushing for it.

This disagreement is causing a serious divide among climate scientists. Friends who usually agree on things are now arguing. Some, like Frank Biermann from Utrecht University, worry that pro-geoengineering researchers don't understand the risks. Others, like Daniele Visoni from Cornell University, believe we need to study it to know the risks and benefits better.

Researchers who support geoengineering say it can't replace cutting emissions and needs global agreement on its use. They fear that if scientists don't study it seriously, others might try to cool the planet on their own. Singh said that recent tests by a startup

## **Controversial Technology Creating Unprecedented Rift Among Climate Scientists**

TIME Magazine, March 17, 2023

<https://time.com/6264143/geoengineering-climate-scientists-divided/>

showed that if scientists and governments don't act, anyone might try to cool the planet without proper research.

### **Quotes from the Article:**

- "Solar geoengineering remained largely outside the scientific mainstream until the early 2000s, when influential scientists like David Keith, now a professor of applied physics at Harvard University, first started advocating for more study and discussion of using chemicals to cool the planet".
- "By 2021, the momentum was shifting, with respected organizations like the National Academies of Sciences, Engineering, and Medicine recommending scientists 'cautiously pursue' solar geoengineering research".
- "A succession of papers, books, and philanthropic donations to support research followed over the course of the next two decades, particularly from tech billionaires like Bill Gates who became interested in the technology's potential".
- "For opponents of geoengineering research, a 2021 article advocating for more study of the field in influential science journal Nature was an indication that the proponents were making headway".
- "Researchers who work on geoengineering often emphasize that such climate interventions are no substitute for emissions reductions, and stress the need for global agreement and fair governance in how the technology might be used".