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If Solar Geoengineering is Necessary, Scientists Should Make the Call

The field of solar geoengineering is filled with controversy. From the ethical dilemma of actually experimenting with the technology to the widespread effects on the planet, no one can come to a consensus on any of these aspects. One of the many problems with solar geoengineering is funding. It costs billions of dollars to release particles into the atmosphere and is being funded by private donors. Should the donors have a say in how their donated funds are being used? Absolutely not. Solar geoengineering comes with drastic environmental consequences. Because of this, scientists should be the ones to make all decisions including how the funds are used, and when, if, and how the experiments take place.

When we consider if donors should have a say in how the funds are used we must first ask ourselves this question: What is solar geoengineering and why is it so dangerous? Bill McKibben in his article “Dimming the Sun to Cool the Planet Is a Desperate Idea, Yet We’re Inching Toward It”, defines solar geoengineering as spraying “highly reflective particles of a material, such as sulfur, into the stratosphere in order to deflect sunlight and so cool the planet” (McKibben). Solar geoengineering would, in essence, mimic the particle release that comes with massive volcanic eruptions which block sunlight and cool the world for a year or two. If that sounds terrifying, that’s because it is. Implementing solar geoengineering would be a last-ditch

attempt to counteract the effects of global warming should something go wrong with society's transition to renewable energy. The effects of solar geoengineering go beyond solely lowering Earth's temperature. Solar geoengineering alters global weather patterns which produce hard-to-predict outcomes on a regional level. For example, in South America, there could be an increase in the mean flow of the rivers which would generate more hydroelectric power while in West Africa, extreme drought occurs. Solar geoengineering could increase the amount of malaria in one part of Southeast Asia while decreasing the amount of malaria in another part. Scientists are the ones conducting research and making predictions. They know the most about the subject and should be the ones to make any decision related to solar geoengineering. The uncertainty surrounding the consequences of solar geoengineering leads to the reasonable conclusion that scientists should be the ones to call all the shots.

Another major problem with giving donors power over solar geoengineering experiments is the lack of a governing body to oversee projects. Currently, there is no system that could keep solar geoengineering in check. McKibben recalls a conversation with political scientist Frank Biermann where he described this issue, "we believe there's no governance system existing that could decide this, and that none is plausible," he told me. "You'd have to take decisions on duration, on the degree—and if there are conflicts—'we want a little more here, a little less here'—all these need adjudication" (McKibben). If donors had specific control over how their funds were being used, they essentially would be serving this role as the governing body in charge of solar geoengineering experiments. That is not a position we should put these donors in. Most of them know little about solar geoengineering, and when they donate funds, it should be clear that they are placing their trust in the scientists who are trying to save the world. The power

to severely alter the world's climate should not be given to people simply because they have money. Instead, that power should be given to those with the most experience and knowledge, which in this case, are the scientists.

Work Cited

McKibben, B. (2022, November 22). *Dimming the sun to cool the planet is a desperate idea, yet we're inching toward it*. The New Yorker. Retrieved January 30, 2023, from https://www.newyorker.com/news/annals-of-a-warming-planet/dimming-the-sun-to-cool-the-planet-is-a-desperate-idea-yet-were-inching-toward-it