

GEOENGINEERING 101 HACKING THE PLANET #1

Climate Justice Alliance¹

Overview

Geoengineering refers to a set of proposed technologies to deliberately intervene in and alter Earth systems on a mega-scale. It is a desperate, potentially catastrophic proposal to manipulate the climate in an attempt to roll back some of the effects of climate change.

The fossil fuel industry likes geoengineering because it claims to address climate change without needing to lower our dependence on the extraction and consumption of oil and gas.

Deliberate

Geoengineering proposals aim to purposefully change the way the Earth's natural geophysical and geochemical cycles function. The goal is to extend fossil fuel extraction and consumption by hiding or displacing the effects.

Mega-Scale

Geoengineering seeks to change the way the entire planet functions. This means techno-fixes must be deployed at a massive scale. Whatever impacts emerge, now or in the future, cannot be reliably predicted or tested. The only way to find out what will happen is to test them at scale, at which point it may be too late to turn back.

Desperate

Promoters of geoengineering argue that the scale, pace and impacts of climate change demand that we resort to far-fetched, expensive, unproven and untestable measures because we are running out of time to reduce greenhouse gas (GHG) emissions.



The Danger of Geoengineering:

Geoengineering proposals give the appearance of being daring and science-based, but they are unproven and dangerous. Here are examples of a few such proposals:

Stratospheric Aerosol Injection (SAI)

SAI is based on shooting particles into the stratosphere to mimic the effects of a volcanic eruption, thereby blocking some of the Sun's radiation from reaching Earth. The idea is to temporarily mask the effects of climate change by attempting to lower the temperature.

Carbon Capture & Storage (CCS)

CCS seeks to extend fossil fuel extraction and consumption by hiding carbon emissions underground by literally pumping them into the Earth. There is no certainty they would stay there.

Ocean Iron Fertilization

This idea includes dumping iron particles into large areas of the ocean to increase plankton blooms that are supposed to increase the amount of CO₂ absorbed by oceans.

Who is behind Geoengineering?

The biggest driver of the climate crisis is the fossil fuel industry -- Big Oil, Coal and Gas. This is the same industry cluster that, for decades, has funded climate denial and fought every attempt to limit pollution. The fossil fuel industry is also among the biggest funders of Geoengineering.² For Big Oil, geoengineering looks like a way to keep profiting while seeming to address the climate devastation they have caused. Some of the richest men on Earth, including Bill Gates, are funding geoengineering.

WHY WE MUST OPPOSE GEOENGINEERING

Geoengineering does not address the root causes of the climate crisis: economic inequity, environmental injustice, the drive for unlimited economic growth, and the greenhouse gas emissions that result from these activities.

Geoengineering Is:



UNTESTABLE

Small-scale field-tests and computer modeling cannot tell us what happens when you disrupt planetary systems at a massive scale across space and time. To find out what will happen, these techniques must be deployed at a very large scale over decades. If something goes wrong, it will be too late.



UNGOVERNABLE

Because these technologies are trans-boundary, there is no way to democratically govern when, where and how they are used or who controls them.



UNSTOPPABLE

Most geoengineering schemes cannot be undone. In the case of Stratospheric Aerosol Injection (See Above) the side effect would be “Termination Shock” -- a dangerous, rapid rise in temperature. Once started, these techniques would have to continue, perhaps for hundreds of years.



UNNECESSARY

We know what we need to do to tackle the climate crisis. We need a Just Transition towards healthy, regenerative economies based on sustainable, renewable energy; soil restoration; zero waste; ecosystems protection; Indigenous sovereignty; human rights; social equity; and keeping fossil fuels in the ground.

The crisis and the urgency are real, but urgency does not justify false promises like geoengineering. **We do not have the time or resources to waste on deadly distractions !!!**

For more information on geoengineering, visit:
www.geoengineeringmonitor.org | www.climatejusticealliance.org
www.etcgroup.org

Endnotes

- 1 - Special thanks to the ETC Group for its groundbreaking work and guidance on geoengineering.
- 2 - Center for International Environmental Law, Fuel to the Fire: How Geoengineering Threatens to Entrench Fossil Fuels and Accelerate the Climate Crisis (2019).



