

# Geoengineering isn't going to save the planet, says UCLA researcher

**Molly Peterson, KPCC (Southern California Public Radio), 6-1-14**

In recent years, some researchers have proposed massive technological fixes to combat global warming, attempts to "geo-engineer" the climate to counteract the build-up of greenhouse gases. A new study led by a professor at UCLA concludes there's no silver bullet to stop climate change.

Some researchers envision seeding the oceans with iron filings to grow massive blooms of carbon-eating algae. Others see scattering the atmosphere with aluminum oxide particles to reflect solar heat back into space. But UCLA geology professor Daniela Cusack says those ideas are mostly pie in the sky.

"Climate engineering is not going to provide a quick fix," Cusack says.

She and professors from five other universities – including an ethicist and a political scientist – spent two years evaluating various geo-engineering proposals and found most were either too expensive, too unproven or too risky.

"Like putting giant reflectors out into space," Cusack says. "That would reflect sunlight away from earth. So that would help cool the earth. But that as a strategy we don't think it is really feasible, partially as a cost perspective. But also we really don't know what other climate impacts that would have to reduce solar inputs to earth."

Cusack and her team found none of the proposals were as effective at reducing the risks of climate change as simply lowering the amount of greenhouse gasses pumped into air.

Still, they found some decidedly "low-tech" options could help, like sequestering carbon through biological means. One way is stop clear-cutting forests that serve as natural carbon sinks. Another is to bury burned plant material called biochar in the ground. Biochar can hold carbon in the soil for hundreds of years and even make the land more fertile.

"So I think this is a really exciting strategy because it doesn't cause further environmental degradation and it has other sort of benefits attached to it," Cusack says.

The kinds of engineering projects Cusack and her team liked didn't cost an arm and a leg and might even have a chance in the political arena. Plus, they aren't likely to make the challenges of climate change worse.