

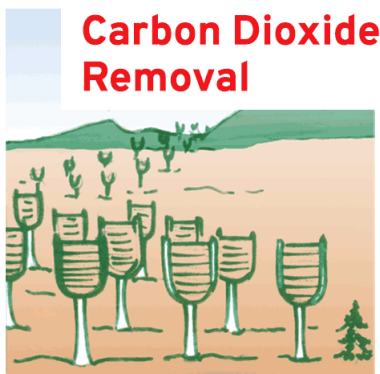
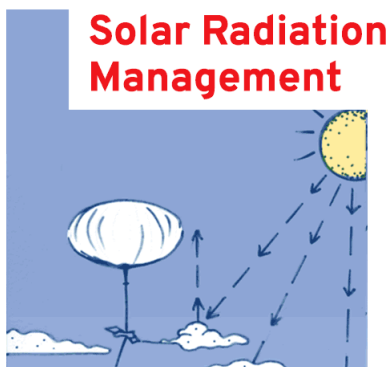
WHAT IS GEOENGINEERING?

November 6, 2014

Resources at a glance: in-depth report, two-page briefing, and technology briefings.

Climate geoengineering refers to large-scale schemes for intervention in the earth's oceans, soils and atmosphere with the aim of reducing the effects of climate change, usually temporarily.

TYPES OF GEOENGINEERING



The main categories of proposed geoengineering techniques are:

- **SOLAR RADIATION MANAGEMENT:** SRM techniques attempt to reflect sunlight back into space, and include a range of ideas, from orbiting mirrors, tonnes of sulphates sprayed into the stratosphere, and modifying clouds, plants and ice to make them more reflect more sunlight.
- **CARBON DIOXIDE REMOVAL:** These proposals posit that it's possible to suck carbon out of the atmosphere on a massive scale, using a combination of biological and mechanical methods, from seeding the ocean with iron pellets to create plankton blooms to creating forests of mechanical "artificial trees".
- **EARTH RADIATION MANAGEMENT:** ERM proponents suggest that negative effects of climate change can be offset by allowing heat to escape into space – for example, by thinning cirrus clouds.

CHARACTERISTICS

Geoengineering is a false solution to the climate crisis that aims to address the symptoms of climate change but ignores and enables the root causes to continue.

While there are a variety of geoengineering techniques and technologies (see: **Technologies**), each with their own ecological and social implications, **a few important characteristics apply to all techniques:**

- **THEY DON'T REALLY EXIST:** To date, the claims made about geoengineering techniques are purely based on speculation, and are – effectively by definition – not real technologies.
- **FAVoured BY GLOBAL NORTH, BACKED BY BILLIONAIRES:** Most of the political and financial support for geoengineering comes from a small group of elite engineers, a handful of billionaires, and a growing group of right wing politicians (many of them former climate deniers).
- **ECOLOGICAL IMPACTS ARE HUGE:** The sheer scale of many of these proposals would have massive negative and unpredictable impacts on the environment – air, land and sea – which would be disproportionately borne by the

global south.

IMPACTS AND CRITIQUES OF SPECIFIC TECHNIQUES

Climate geoengineering proposals represent efforts to manipulate the climate on a global scale, but each proposed technique brings its own environmental and social impacts. We're gathering as much information as possible about their anticipated effects.

For a discussion of specifics, visit our [list of proposed geoengineering techniques](#).

For more in-depth overviews about geoengineering, visit our [resources page](#).