

Case 4

The potential for climate control has raised both scientific and ethical alarms that have not been fully explored. Intuitively appealing, scientists tout techniques for engineering Mother Nature to mitigate problems stemming from man-made global warming, and to make life more pleasant. In recent years, however, one high profile project drew attention to the potential scientific, ethical, and political implications of climate manipulation.

Stratospheric Particle Injection for Climate Engineering (SPICE) is a project sponsored by several UK universities and funded by the UK government. In 2011, SPICE was set to test a technique to manage radiation by pumping water up a one kilometer long hose to see if water molecules would deflect radiation from earth and have a cooling effect. Just before its implementation, the UK honored a request by the international organization, ETC (Action Group on Erosion, Technology and Concentration), and other environmentalists across the globe, to put SPICE on hold. ETC and others advocate taking a step back to develop best practices for proposing and implementing projects like SPICE. They want to develop guidelines for vetting future geoengineering projects, guidelines that address scientific efficacy and anticipate possible unintended consequences such as induced droughts or altered rainfall patterns. Some worry about the political possibility that developing mitigating solutions for global warming will give governments an excuse to loosen emissions controls.

In addition to managing solar radiation with water or particles that reflect sunlight away from earth, geoengineering techniques are being developed to reduce carbon dioxide in the environment. As global warming becomes a more serious threat, so too do potential remediations. Resolving the thorny issues that surround climate geoengineering is crucial.