

Time to lift the geoengineering taboo

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Hot on the heels of the Royal Society's Geoengineering the Climate report, September's *Physics World* contains feature comment from UK experts stressing the need to start taking geoengineering - deliberate interventions in the climate system to counteract man-made global warming - more seriously.

Of increased importance, as policy makers and politicians prepare to negotiate binding carbon emission targets at December's United Nation's Convention on [Climate Change](#) in Copenhagen (CoP15), many feel we need to come up with a plan B as climate mitigation appears to be too little too late.

Authors Peter Cox, professor of [climate system](#) dynamics at the University of Exeter, and Hazel Jeffrey, head of strategic management at the UK's Natural Environment Research Council, who were both

involved in the Royal Society's new report but writing independently for *Physics World*, examine the potentials of different geoengineering initiatives.

Different schemes for both direct carbon-dioxide removal, such as fertilising the ocean with a nutrient such as iron to enhance the [oceanic carbon](#) sink, and solar-radiation management through, for example, brightening the clouds have different benefits, costs and risks associated.

What sounds like sci-fi could be a crucial alternative to common mitigation, which, even if carbon emission should be cut by as much as 50% by 2050, is unlikely to keep global warming below two degrees this century.

While more research needs to be done to ascertain the risks and effectiveness associated with these large-scale interventions in the climate system, many geoengineering strategies have a better benefit-to-cost ratio than conventional mitigation methods.

Neither costs nor practicality might be the real reasons behind climate scientists' reluctance to embrace geoengineering, as Cox and Jeffrey highlight, "The primary reason there has been so little debate about geoengineering amongst climate scientists is concern that such a debate would imply an alternative to reducing the human [carbon](#) footprint."

Source: Institute of Physics ([news](#) : [web](#))

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