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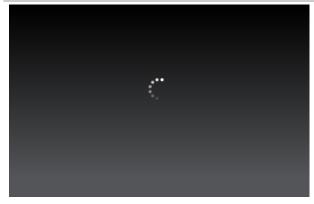
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Climate ideas put under spotlight

By David Shukman

Environment Correspondent, BBC News



Dr Richard Lampitt: "We have already changed the oceans"

From the twilight zone of science fiction, the idea of "geoengineering" is emerging into the harsher daylight of science fact - and I'm going to risk the prediction that we'll hear a lot more about it in the coming years.

Only a few years ago, the very notion of planetary-scale projects to tackle climate change was derided by many as too nutty to bother with.

Mainstream media coverage tended to gently poke fun at the images of galaxies of mirrors in orbit or fleets of giant ships seeding the

But suddenly that's changing. Today's launch of a study into geoengineering by the Royal Society, Britain's most august scientific body, does give the subject more seriousness.

As does the fact that only last month, the International Union for the Conservation of Nature, at its Congress in Barcelona, devoted a session to one particular scheme - encouraging plankton to absorb more carbon dioxide.

As the chair of that debate, I found myself acting as referee between passionate advocates and critics of this plan.

Fertile topic

And now, standing on the deck of the National Oceanography Centre's research vessel Callista, I'm with one of the scientists who'll be contributing to the Royal Society study, the NOC's Dr Richard Lampitt, and - amazingly - it feels perfectly normal to be discussing fertilising the seas with iron.

A bearded figure dressed for the cold in a thick mariner's sweater, he argues that we urgently need to find out if adding iron as a nutrient will foster the growth of plankton which will trap carbon and then carry it to the seabed as they die.

No different to fertilising your



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lawn, he says.

His worry is that emissions of greenhouse gases show no sign of slowing down and that it's essential to know now if last-ditch responses like using the oceans will be any use.

Will it work? Well, maybe. In the NOC's labs I'm shown how flasks of normal seawater are clear - but when microscopic particles of iron



Adding iron to sea water could stimulate the growth of algae

are added, the water darkens into a lurid green as the algae blossom over a few days.

What's unknown is whether the tiny life forms will then descend to the depths and keep the carbon locked away there.

Unknown effects

What's also unknown is whether any of this will trigger some unexpected reaction or create a new problem, and maybe make things worse. One leading marine scientist told me that the oceans are simply too precious to meddle with.

And an analogy surfaces this morning: there's a news item about the legacy of asbestos - at one time that was thought to be a brilliant life-saving product and we now know differently.

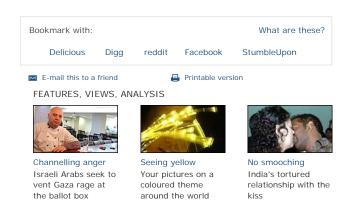
No surprise that environmental groups like Greenpeace have serious worries and have campaigned to keep ocean geo-engineering under the tightest control, not least because it distracts from the task of cutting emissions of gases in the first place.

Even in the scientific community, it's a question that provokes markedly different views.

I get a snapshot of that in the canteen at the NOC. Richard Lampitt argues that iron fertilisation is a potentially valuable weapon to fight global warming - under the most optimistic scenario it could trap one-eighth of our greenhouse gas emissions, he says.

One of his colleagues, a supporter, questions whether it could ever capture that much. Another wonders if it'll work at all.

This one will run and run.



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