

The scientific journal *Nature* reports on two recent research findings. One is bad news. I think the other is good news, but not everyone will agree.

The first [report](#) (the bad news) is a reminder that ecological harm is a cumulative process:



Gulf Dolphin Die-Off

The [new] study suggests that the cold weather was the first of three factors that weakened the dolphin population and contributed to the high death rate. The second was the Deepwater Horizon oil spill that followed in April. And the third was large volumes of cold fresh water from melting snow entering Mobile Bay — an inlet in the Gulf of Mexico — in 2011.

The second [report](#) is good news, at least potentially. It involves a reanalysis of a 2005 experiment in geoengineering:

In the search for methods to limit global warming, it seems that stimulating the growth of algae in the oceans might be an efficient way of removing excess carbon dioxide from the atmosphere after all.

Despite other studies suggesting that this approach was ineffective, a recent analysis of an ocean-fertilization experiment eight years ago in the Southern Ocean indicates that encouraging algal blooms to grow can soak up carbon that is then deposited in the deep ocean as the algae die.

Of course, there are many questions yet to be answered: Will the results bear up under further analysis? Can they be replicated? Would they scale up? What would be the ecological fallout? It's understandable that there's an international moratorium on commercial use:

Some advocates of geoengineering think that this cooling mechanism might help to mitigate present-day climate change. However, the idea of deliberately stimulating plankton growth on a large scale is highly controversial. After noting that there were gaps in the scientific knowledge about this approach, the parties to the London Convention — the international treaty governing ocean dumping — agreed in 2007 that 'commercial' ocean fertilization is not justified.

The dolphin study shows how ecological harm can be subtle and cumulative — certainly a reason for caution in geoengineering. Still, moderate use of geoengineering like this *might*

help buy time for more the transition to a post-carbon economy — if it actually works and doesn't pose unacceptable risks.