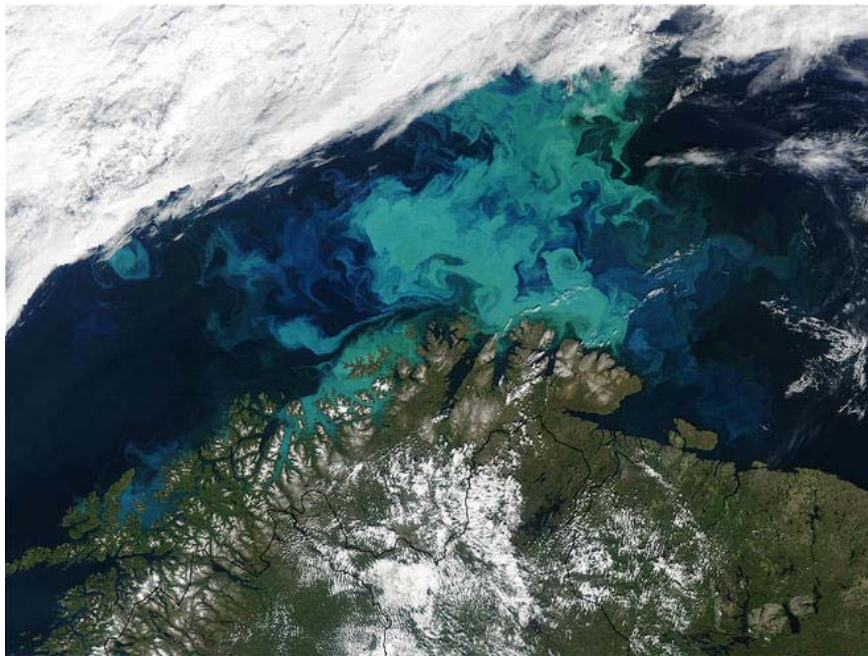


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U.N. Says 'No,' Climate Hackers Say, 'Yes We Can'

 By Alexis Madrigal January 09, 2009 | 10:46:37 AM Categories: [Climate](#), [Environment](#), [Exploration](#), [Physics](#)


This story has been updated.

A major Indian-German geoengineering expedition set sail this week for the Scotia Sea, flouting a U.N. ban on ocean iron fertilization experiments in hopes of garnering data about whether the process actually does take carbon dioxide out of the atmosphere and sequester it in the deep ocean, a technique that may help reverse global warming.

The [LOHAFEX experiment](#) will spread 20-tons of iron sulphate particles over a 115-square-mile section of open ocean north of Antarctica — that's about 1.7 times the size of Washington, D.C. The initiative has drawn fire from environmental groups who point out that [200 countries agreed to the moratorium](#) until more evidence was available about its efficacy.

But that hasn't stopped the LOHAFEX team, composed of Alfred Wegener Institute and Indian National Institute of Oceanography scientists, who say they need to conduct experiments to get such data.

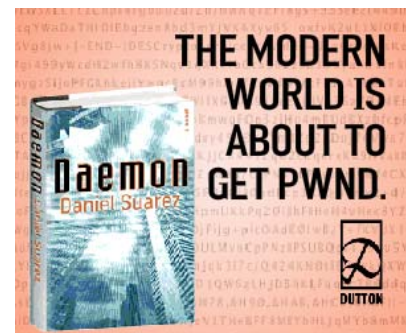
"If the LOHAFEX iron dump goes ahead, it will be a clear defiance of the U.N. Convention on Biological Diversity," Jim Thomas of ETC Group, said in a press release.

It's becoming clear that when it comes to global warming reversal schemes, [deciding who will control the global thermostat](#) is as complex an issue as how such schemes could actually be accomplished. Ocean iron fertilization is considered one of the more promising options for global-scale geoengineering, which aims to slow or reverse the effects of climate change caused by man's burning of fossil fuels.

While Thomas expressed outrage, [Jamais Cascio](#), a futurist who has written about the [geopolitical repercussions of geoengineering](#) for the journal *Foreign Policy*, took a more measured tone.

"ETC is right that we need international standards and safeguards for these experiments, and hopefully this attempt will spur action in that regard," Cascio said. "I think they're wrong, however, to suggest that any

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look at geoengineering is inherently problematic."

Importantly, iron fertilization would deal directly with the amount of CO₂ in the atmosphere, as opposed to, say, blocking out some of the sun's rays with [a global molecular parasol](#).

By providing plankton with iron in water where iron is lacking, the marine creatures grow in tremendous numbers, incorporating carbon into their bodies. When the plankton die and sink, the carbon goes with down with their skeletons. It is unknown, however, how much of that carbon actually makes it deep into the ocean, where it would be sequestered for decades, not days.

At a panel at meeting of the American Association for the Advancement of Science last year, marine geochemist Ken Buesseler of the Woods Hole Oceanographic Institute said that [somewhere between 2 and 50 percent](#) of the carbon the plankton eat could actually make it to the depths of the ocean, which is basically like saying that we don't know if the process works.

"The efficacy of iron-induced sequestration of atmospheric CO₂ to the deep sea, however, remains poorly constrained," [he summarized](#). "We do not yet understand the full range of intended and potential unintended biogeochemical and ecological impacts."

The voluntary U.N. ban included language to allow countries to do tests near their shores. But it's the open seas, particularly in the southern hemisphere, that would allow in-situ testing of the LOHAFEX scientists' hypotheses.

"The fate of carbon from the bloom could not be adequately determined in earlier experiments," the LOHAFEX website reads. "LOHAFEX will now study the entire range of processes determining the partitioning of carbon between atmosphere and deep ocean in the experimental bloom."

Cascio said that it's likely that further geoengineering experiments or actual efforts will be made.

"This comes as absolutely no surprise to me," he said. "The confluence of desperation as we see climate disruption hit faster than anticipated, inaction on the carbon emission front, and the ease with which geoengineering can be undertaken means that this won't be the last time that a sub-national group tries something like this."

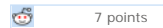
Already, two ocean-iron-fertilization companies, Climos and Planktos, have been founded. They've met different fates, though. Last year, Planktos went belly up, while [Climos pulled in \\$4 million](#) in venture capital.

UPDATE 11:10 am PST: Climos CEO, Dan Whaley, notes in our comments section that there was a clause included in an October resolution of a separate U.N. organization, parties to [the London Convention](#), in which 88 countries voted to allow "legitimate scientific research" on ocean iron fertilization, without restrictions to coastal waters. It was under this ruling that the researchers proceeded. The [full text of that resolution](#) is available at Climos' website.

See Also:

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WiSci 2.0: [Alexis Madrigal's Twitter](#), [Google Reader feed](#), and project site, [Inventing Green: the lost history of American clean tech](#); [Wired Science on Facebook](#).



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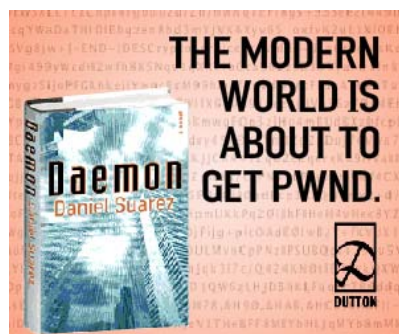
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And if this goes very south what do you want to bet they blame America?

Posted by: m3kt3k | Jan 9, 2009 8:20:29 AM

behold the TRUE danger of global warming: crackpots with tons of free grant money who think they have all the answers.

Posted by: eROKv | Jan 9, 2009 8:29:22 AM

http://en.wikipedia.org/wiki/Kim_St Stanley_Robinson

If you want to read something fictional but interesting related to this, try Kim Stanley Robinson's "Science in the Capital" series. It is about seeding the oceans, melting icecaps, etc. The planning for these "climate hackers" may have even inspired Stanley, years ago when he wrote.

Posted by: metadrift | Jan 9, 2009 8:44:48 AM

Ice 9, anyone?

Posted by: The AMAZING Dik Shuttle of the Fabulous ShuttleLOUNGE | Jan 9, 2009 8:45:27 AM

I think the REAL danger of "manmade global warming" is the trust of the masses being put by the media in these ethically compromised European scientists. The recommendations of the '95 Global Biodiversity Assessment were to send the planet back into the bronze age and limit human population to 500,000,000. Now, sure enough, they're finding out that mercury improves your brain, vitamins are bad for you, pesticides are good for you, fluoride in your water DOESN'T actually make you docile and pleasant, autism is the next movement forward in human evolution, and that humans are the source of warmth on the planet, not the sun.

Corruption is rampant, and it's PROFOUNDLY apparent in the UK. Those poofs have given up on independent thought, and will fit nicely into the prole cages being constructed around them.

Posted by: Paul | Jan 9, 2009 9:01:22 AM

Reverse global warming?? morons... they're going to bring in the next ice age even quicker. The next craze... man-made global cooling. Polar bears roaming Arizona.... see.

Posted by: frecks | Jan 9, 2009 9:08:00 AM

Let me get thins straight, they want to have the plankton absorb the CO2 and have it sink to the bottom of the ocean with them for "decades". What happens when the decades are up? We'll have an even bigger problem to deal with. Will eating the plankton with extra CO2 and iron have any effect on the whales etc. that eat them?

Posted by: T-Bag | Jan 9, 2009 9:10:39 AM

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Posted by: T-Bag | Jan 9, 2009 9:11:43 AM

i feel it getting cooler already!

Posted by: ice man | Jan 9, 2009 9:28:33 AM

its been a long cold winter already and its only just begun, just like last winter and the one before that. when is this global warming thing gonna kick in anyways? i can't wait!!!

Posted by: eROKv | Jan 9, 2009 10:00:09 AM

Alexis,

You have completely ignored the outcome of the UN London Convention last October and the 88 countries which voted unanimously to accept the resolution which clearly provided a mechanism for "legitimate

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scientific research" in OHF to move forward. The German EPA met with Victor and cleared his project to move forward given that outcome. You'll note that the Germans were the ones that hosted the Bonn CBD conference, so they clearly were aware of both outcomes. In addition, the CBD statement acknowledged the ongoing UN IMO London Convention process its language. To say that Victor flaunted the UN process is completely and absolutely incorrect. He worked very hard to ensure that he was compliant both with his governmental environmental processes as well as with the superior regulatory process taking place at the LC. That Jim Thomas and the ETC Group have failed to acknowledge the LC outcome in their press release and only highlighted the CBD language is dishonest and a travesty. Dan Whaley
CEO, Climos

Posted by: Dan Whaley | Jan 9, 2009 10:13:31 AM

When skeptics are ridiculed for going against the conventional wisdom, these are the kinds of shit-for-brains ideas that result.

Scientists learned that the easy way to get funding is to scare people, but some people are willing to do desperate things when they are scared enough. The alarmist manner in which the whole Global Cooling/Global Warming/Global Climate Change thing has been portrayed makes the situation out to be so dire that some people figure they need to do *something* - no matter how ill-conceived, short-sighted or foolish it may be.

Posted by: slave138 | Jan 9, 2009 10:31:06 AM

The whole thing is a bad idea. It could end up doing significant harm to the ecosystem in question. A much better, and probably more viable, solution is peridotite. It soaks up CO2 naturally, and is found in abundance in the Middle Eastern country of Oman. Here is a link:

<http://www.sciencedaily.com/releases/2008/11/081105180813.htm>

(source: science daily)

Ironic isn't it, that a nation in the heart of Oil country, might provide a way out of the Global Warming nightmare?
Check it out...

Posted by: sci_guy | Jan 9, 2009 10:33:39 AM

BTW, I understand that CO2s exact role in Global Warming is in question.
The point is, peridotite could provide a solution as needed....a much better one than is proposed here.

Posted by: sci_guy | Jan 9, 2009 10:35:44 AM

Here is the specific section from the LC language this fall.

"6. AGREE that until specific guidance is available, Contracting Parties should be urged to use utmost caution and the best available guidance to evaluate the scientific research proposals to ensure protection of the marine environment consistent with the Convention and Protocol;"

Having sat through the LC process personally for a week last October, they most definitely were specific in their decision "not" to preclude projects before the assessment framework is agreed upon-- we probably spent several hours on this point alone. Greenpeace's David Santillo participated in the drafting of this language.

Posted by: Dan Whaley | Jan 9, 2009 10:36:15 AM

Dan, so you spent a whole several hours debating whether or not to preclude dumping 20 tons of iron sulphate into the ocean. How long will it take you to decide what to do when the experiment fails and all the plankton in that area have died off?

Posted by: Wow | Jan 9, 2009 10:47:46 AM

They is just gonna poison a little more of the already half dead ocean. This technique can not possibly even come close to recovering all the carbon dioxide we have produced in the last 100 years.

Posted by: N. Obody | Jan 9, 2009 10:48:35 AM

For every action, there is a reaction.

What are the potential side-effects here? If we push all the CO2 down into the ocean, how will that affect marine life and when that CO2 is finally released back into the atmosphere what effect will it have then? Is it even possible to have that sequestered CO2 that sinks into the ocean even get a chance to come back up? If so, how will it be released? From volcanoes? Marine life that feeds on the plankton, and then later dies of natural causes (old age or death by a natural predator, etc).

I'm sure many of the possibilities have been modeled and outcomes weighed, but there are so many variables here to think that we have everything figured out.

Even our best meteorologists have problems accurately predicting weather beyond more than a few days to up to 2 or 3 weeks, because of so many changing variables. What makes us think that we can successfully control those variables to fix global warming on the long term horizon?

Maybe in a couple of decades, we will be able to more accurately assess that information to make a better informed solution, but I don't think we are ready to take things into our own hands yet.

I agree that we need to be concerned and that we shouldn't just sit on our hands, but we should learn more before we do something that could have HUGE impacts on the entire planet later.

The planet has always had warming and cooling cycles. This may be the way our planet corrects natural errors. Maybe we should learn how to live with our planet, rather than trying to control how things work for the time being... at least till we get a better understanding of all the dynamics involved.

Posted by: Jason | Jan 9, 2009 10:55:19 AM

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While I think the whole global warming thing is bunk, at least this scheme has the advantage of: being small, gathering "real data" (which is in short supply), and if it causes problems you can just stop doing it.

Posted by: ZenDraken | Jan 9, 2009 11:11:30 AM

Man made global warming is a complete farce, and Wired is a willing accomplice in spreading this misinformation. If you can't prove it, quit spreading it as fact.

Posted by: Joeblow | Jan 9, 2009 11:27:26 AM

"The confluence of desperation as we see climate disruption hit faster than anticipated..."
What alternate reality is Cascio living in? Intelligent people still believe in this nonsense?

Posted by: RWW | Jan 9, 2009 11:28:29 AM

This process is really the only natural long term method of removal of CO2 from the atmosphere, and it is already happening around the world in parts of oceans that aren't iron deficient. This method just increases the rate CO2 is pulled down by increasing the areas this process happens. What is happening is that when plankton grow, they absorb carbon to make up their bodies. This isn't weird, all creatures on earth do it, the iron just allows them to live where they otherwise couldn't. When they die, their bodies drift down to the ocean floor where they are buried in the sediment for hundreds to thousands of years. It's not like in 20 years the carbon comes bursting forth back into the atmosphere. Even thousands of years from now, it will just be fossil fuels again, which comes back into the atmosphere if we, say... burn it. And there should be no negative effects on any animals eating the plankton, because it's just natural plankton, at most it will mean more creatures can live in what were previously dead zones in the ocean. It may upset the ecosystem a bit, but nature has a way of righting itself to environmental changes.

Posted by: Adam | Jan 9, 2009 11:53:03 AM

"We can't solve problems by using the same kind of thinking we used when we created them." - Einstein
Ocean seeding has NEVER been "promising". In "theory" it's promising. Theory does not equal reality. Dozens of tests later, there is nothing more than more crap poisoning the oceans... but what else would you expect from anyone who would think this is worth a try?

Posted by: jane | Jan 9, 2009 12:00:52 PM

This process is really the only natural long term method of removal of CO2 from the atmosphere..
ACTUALLY YOU'RE WRONG. PERHAPS NEXT TIME YOU SHOULD READ OTHER PEOPLE'S COMMENTS (LIKE MINE):

The whole thing is a bad idea. It could end up doing significant harm to the ecosystem in question. A much better, and probably more viable, solution is peridotite. It soaks up CO2 naturally, and is found in abundance in the Middle Eastern country of Oman. Here is a link:

<http://www.sciencedaily.com/releases/2008/11/081105180813.htm>

(source: science daily)

Ironic isn't it, that a nation in the heart of Oil country, might provide a way out of the Global Warming nightmare?
Check it out...

Posted by: sci_guy | Jan 9, 2009 10:33:39 AM

You're entitled to your opinion, but please, know the facts before opening your trap.

Posted by: sci_guy | Jan 9, 2009 12:35:52 PM

cold fusion: the saint
the cure: i am legend
the matrix meets fern gully!!!
so then we have real life with the atom splitter to create miniature black holes; stardate 29143, etc, etc...
now we have the the sky is falling, "how did the sea get salty" concept in motion. the world is going to the bad place.

Posted by: Uroma | Jan 9, 2009 12:38:17 PM

And there should be no negative effects on any animals eating the plankton, because it's just natural plankton, at most it will mean more creatures can live in what were previously dead zones in the ocean. It may upset the ecosystem a bit, but nature has a way of righting itself to environmental changes.

Posted by: Adam | Jan 9, 2009 11:53:03 AM

@This is also false. You claim, without evidence that it "may upset the ecosystem a bit". TRY A LOT.

I'll gladly link on the damaging effects of iron to ocean ecosystems.

Harmful Algae Bloom and oxygen depletion are just some of the issues.

In fact, here's an article on the dangers:

<http://www.sciencedaily.com/releases/2007/11/071129132753.htm>

Ocean Fertilization 'Fix' For Global Warming Discredited By New Research

(source: science daily)

It won't work.

No offense Adam, but are you an industry hack or just a mindless troll?

Posted by: sci_guy | Jan 9, 2009 12:41:10 PM

Now that we have written off global warming as a fact we get get back to praying to Jesus to fix everything else for us !..
If in doubt ask Jesus, he's the voice in your head that justifies everything.....literately !

Posted by: heyheyhey | Jan 9, 2009 1:14:48 PM

I, for one, am very skeptical of geo-engineering proposals.

But I think we need hard data, and the only way to get it is to do some testing.

Posted by: Urgelt | Jan 9, 2009 1:17:34 PM

This strikes me as a stupid idea. I truly believe that scientific research is essential if we're to understand our universe. But large-scale experiments like this worry me because we have such a poor understanding of what the effects could be.

When it comes to global issues - like the environment - I insist on excess caution and very conservative approaches. The climate is an incredibly complex system that we do not understand. It would be better to force people to reduce energy usage, waste, inefficiency etc than to start introducing new variables into the equation.

Even if the whole idea of anthropogenic global warming turns out to be wrong we'd have the benefit of all the new technology.

BTW global warming doesn't imply that New York will have 30 C winters. It means that we can expect more turbulent weather systems, increased incidence of droughts and floods, stronger storms etc. The average global temperature might increase by "only" 1C - but that does not reflect the violent changes in weather systems it would cause.

Posted by: Jack Hawkins | Jan 9, 2009 1:39:45 PM

To all the folks complaining that the carbon will eventually wind up back in the atmosphere, where do you think it came from originally? Nobody has a magic carbon generator; it's a closed system. Either the carbon is in the atmosphere, or it's buried somehow. The carbon that's in the atmosphere now came from oil and coal that came from plants that absorbed it from the atmosphere and then were buried underground and under the ocean.

Posted by: Paul | Jan 9, 2009 1:53:33 PM

even though global warming is not real (although its the darling of liberals and environmentalist since it gives them a drum to beat in attempt to reduce industry and get the 3rd word in poverty) they are performing experiments to reduce CO2 levels - great let them waste their money just stop trying to take mine!

Posted by: meliberaldumbass | Jan 9, 2009 1:56:19 PM

Bunch of retarded idiots is what these people are...

Haven't we seen enough of experiments in large scale before understanding the consequences? Nuclear explosions, CFCs, asbestos everywhere, large quantities of lead in paints... there are many things in the past that suggest it is SMART to use some restraint and learn about consequence before taking widespread actions.

Dumping iron in 115-sq miles of ocean is not a 'small' test by any means, even if its a relatively small portion of all the ocean we have. It could still have long-term effects they do not predict, and should take seriously.

Posted by: lordmorgul | Jan 9, 2009 1:59:33 PM

Remove the atmosphere. Problem solved!

Posted by: Itscience | Jan 9, 2009 2:03:34 PM

"When it comes to global issues - like the environment - I insist on excess caution and very conservative approaches... It would be better to force people..."

Ah yes, *force* is such a cautious, conservative approach.

"Even if the whole idea of anthropogenic global warming turns out to be wrong we'd have the benefit of all the new technology."

Spoken like a true statist. Who is "we"? If "we" want this new technology so badly, why aren't "we" demanding it in the marketplace?

"BTW global warming doesn't imply that New York will have 30 C winters. It means that we can expect more turbulent weather systems..."

Yes, the self-serving alarmism was revised in that direction some time ago.

Posted by: RWW | Jan 9, 2009 2:04:26 PM

@ Paul:

Carbon is a lagging indicator. The next big thing will be that we're responsible for global cooling, too.

.

Think I'm not kidding? Monitor this page for a few months:

<http://news.google.com/news?hl=en&tab=wn&ned=us&q=%22global+cooling%22&btnG=Search+News>

Posted by: Anonymous Hollywood blacklist dodger | Jan 9, 2009 2:06:03 PM

I wonder if anyone has done a legitimate assessment of how much carbon polluting energy will be required to provide that much iron... to dump into the sea to recover the CO2 being released by the collection, processing, and transport of that much iron. I rather doubt it.

Posted by: lordmorgul | Jan 9, 2009 2:07:05 PM

...and here come the climate change skeptics, spewing unsupported claims in contradiction to the opinions of about 99% of the world's climate scientists.

This is as predictable as the wave of OUTRAGE! after any article even mildly criticizing Apple.

When did all the loonies move to Wired mag's comments section?

Posted by: Tom C | Jan 9, 2009 2:16:21 PM

In the 70's it was global cooling. The next Ice Age even was talked about. Now it's global warming. Countless number of studies shows that the ice caps are re forming on the north and south pole. But WHO CARES, that frightening big ice junk that fell onto the water that the media and environmentalist keep on pushing onto people heads, trying to show us as if it is THAT BAD, even thus such behavior has been proven to be 100% normal and expected. All this is stupid, and hides the problem, which is more important... mercury being dumb in water. Don't believe me... look how many people purchased these energy efficient light bulb... Yes they don't pollute if given to a specialist recycle center. Look how many people recycle their battery, because it's not worth going to the center which is usually far away for most just for 2 batteries. Now the same will occur with these light bulb which are PACKED with mercury.

Posted by: Good_Bytes | Jan 9, 2009 2:17:50 PM

Global warming is an unproven hypothesis. And yet we are committing billions of dollars to reducing CO2, in the middle of a Maunder minimum, because there is a "scientific consensus" which is what you get then scientists think they are right but can't prove it using the scientific method. There was once a scientific consensus that the earth was flat. That did not make it flat.

The subject of the article is a weather control experiment. It has been scientifically proven that these are futile, look at the work of Lorenz, sensitive dependence on initial conditions, and the entire body of work on chaos theory that has been performed since then. The truth is there is absolutely no way to predict the results of the experiment.

This is the new age of Lysenkoism, any scientist who disagrees with the politically correct dogma of man made global warming via CO2 is denied grants, positions, respect. This is a bigger scam than the Madoff thing.

Posted by: speedy | Jan 9, 2009 2:33:54 PM

This is on the verge of environmental terrorism: "We know you don't agree with us but this is a crisis and we are going to do something about [CO2, deforestation, fur coats] no matter what you think. CRISIS!" They should be brought up on charges; they're polluting in the name of science. I agree with eROKv.

Posted by: jwc | Jan 9, 2009 2:39:06 PM

All it takes is one good big blow up of a volcano and global warming is over for a long time.

Posted by: Mike Vidal | Jan 9, 2009 2:45:08 PM

The only way we're going to find out whether ocean fertilization has a positive or negative effect is to do some experiments such as LOHAFEX. It's worth noting that the 100 square miles LOHAFEX is going to fertilize is dwarfed by the natural plankton blooms that occur after an El Nino. LOHAFEX differs from a natural bloom in that it's attempting to quantify what's going on. LOHAFEX is following up on MBARI's SOFeX work in 2002, one of the early fertilization experiments. You know, they're actually going to do some hard science.

It may just turn out that fertilizing the oceans is an excellent way to improve the world's food supply and restore the depleted fisheries. But if we listen to the nay-sayers and luddites, we'll never know. Heaven forbid that we actually do some, gasp, science.

The fact that Ms. Madrigal slants her article to emphasize the critics and downplay that it's a SCIENCE experiment makes me wonder why Wired bothered publishing the article. Isn't this a tech web site? Don't we value scientific empiricism over politics?

Posted by: michael | Jan 9, 2009 2:56:09 PM

Ok, thats it!! im getting out of this planet.

Posted by: The Akira | Jan 9, 2009 2:58:09 PM

eROKv, that's just silly. everyone knows that global warming only warms up select parts of the planet. everywhere else gets colder or stays the same. ITS SCIENCE, AND IF YOU DON'T AGREE WITH IT, YOU'RE KILLING THE PLANET!!!!!!!!!!!!!!

Posted by: caladone | Jan 9, 2009 3:06:17 PM

Must be a slow newsday. All the defense-heads who wouldn't know science if it bit them are migrating from Danger Room....If your interested in actual science, you can look into the science daily links (my previous posts).

Posted by: sci_guy | Jan 9, 2009 3:07:07 PM

@michael: Nature already creates deadly algae blooms, so it's OK if another company risks it? Nice. Also performing this experiment in clear violation of established protocols, doesn't exactly ring ethical. Here's a quote for the lazy, from the science daily links I provided: "Ocean fertilization is 'dumping' which is essentially prohibited under the law of the sea. There is no point trying to ameliorate the effects of climate change by destroying the oceans -- the very cradle of life on earth. Simply doing more and bigger of that which has already been demonstrated to be ineffective and potentially more harmful than good is counter-intuitive at best." Indeed, the global study of Dr. Lutz and colleagues suggests that greatly enhanced carbon sequestration should not be expected no matter the location or duration of proposed large-scale ocean fertilization experiments."

<http://www.sciencedaily.com/releases/2007/11/071129132753.htm>

Please, continue to ignore the science however...

Posted by: sci_guy | Jan 9, 2009 3:11:47 PM

@Micheal

"The only way we're going to find out whether ocean fertilization has a positive or negative effect is to do some experiments such as LOHAFEX."

Positive or negative effect on what? CO2 sequestration? Maybe. Climate? How is he going to show that? Extinction of whatever critters are in the area? Probably.

"It may just turn out that fertilizing the oceans is an excellent way to improve the world's food supply and restore the depleted fisheries." Oh gee, then why are we so worried about fertilizer runoff into the ocean from farms? Maybe because we have seen the resultant algae blooms?

"You know, they're actually going to do some hard science." No, they are not doing hard science. They are going out into the ocean and polluting it and hoping something interesting happens that they can claim credit for. The underlying theory they are trying to implement a solution for has not been proven by the scientific method, it is an unproven hypothesis, and he has jumped right to trying to correct the unproven problem.

"Don't we value scientific empiricism over politics?" Oh, gee, don't get me started, that is my problem with "man made global warming" in a friggin nutshell, can't believe you said that.

Posted by: speedy | Jan 9, 2009 3:20:23 PM

@ Tom C.,
31,072 American scientists, including 9,021 with PhDs disagree with manmade global warming and have signed the following petition. That's throws your 99% figure out the window. You don't know what you're doing.
<http://www.petitionproject.org/>

Posted by: Paul | Jan 9, 2009 3:47:43 PM

It really doesn't matter if we are the cause of global warming. It's not like we as a species are going to just stop reproducing. We should quit arguing about the cause of said warming, try to make the best model we can come up with, and figure out all our options when it comes to the temperature.

Posted by: Diginess | Jan 9, 2009 4:12:59 PM

Global Warming theory is probably the bigger washbraining experiment never ever created by humans 'sapiens'. The rest is pure speculation, question is: Who control the information about climate? and, Why is too controversial and confused for us? Romans said: 'Panem et circenses', nowadays is junk food and media.

Posted by: César | Jan 9, 2009 5:54:40 PM

"It's what got us into trouble in the first place! Haven't we done enough? Leave Nature Alone!" -- George Carlin

Somehow, I don't see this as an "answer". In the process, are we willing to risk carbonating the ocean into a giant fizzy drink and killing off all the fauna and flora therein?

There's no such thing as a quick answer, and this one smells like a stinker. Solve one problem, only to create another. Fluorescent lamps save electricity! Oh, but by the way, they contain mercury! LEDs last 10x as long! Oh, but by the way the chemicals used to make them are highly toxic and might cause birth defects! There's no such thing as winning via technology. There is always a tradeoff.

Posted by: Bryan S | Jan 9, 2009 5:57:03 PM

"sci"_guy - Yes, there are deadly blooms but the El Nino blooms produce plankton that feed anchovies and sardines that feed tuna, sharks, porpoises and many other predators. There are two major question that needs to be addressed.

One is when you get a huge plankton bloom, how much of the carbon ends up on the sea floor and how much of it ends in the food chain.

Two is how does the ecosystem react to the plankton bloom? Does it create an oasis full of fish we could cultivate or does it produce a haven for jellyfish? If it does the former, that's incredibly useful information. Without doing the science, however, there's no way to know.

If you're opposed to doing science, just say so. But don't muck up your argument by quoting from a political document that defines fertilizing as dumping. The two verbs have different meanings except to politicians. The only people I see fighting this experiment are people who have made up their minds that it's a bad thing or have a stake in having no solution to the problem. Which are you?

Posted by: michael | Jan 9, 2009 6:33:40 PM

I would have to side with the hackers, they are always smarter than the dumb scientists and know it alls!
JESS
<http://www.Privacy-Center.net>

Posted by: John Jones | Jan 9, 2009 7:21:38 PM

I hope this goes away, FAST!

Posted by: montana flynn | Jan 9, 2009 7:37:18 PM

<http://www.filthyrichmond.com/>

Posted by: <http://www.filthyrichmond.com/> | Jan 9, 2009 8:46:02 PM

"When the plankton die and sink, the carbon goes with down with their skeletons."

I think there is a typo here. It should read When the plankton die and sink, the carbon goes down with their skeletons. With is repeated twice and makes the passage awkward.

Posted by: Disowned | Jan 9, 2009 9:27:28 PM

The u.n really is pretty useless. We should disband and form something else. Where every nation is equal. And something that has power. It seems no one is scared of the un. O and these people sound retarded. We are only going to make things worse by letting people test there crackpot theories. I wish global warming

hadn't taken on scare tactics. Its only going to do more harm

Posted by: collin | Jan 9, 2009 10:08:11 PM

I'm appalled by the stupidity and scientific ignorance displayed by the commenters on this page. Get this clear. Iron sulfate is a fertilizer, not a poison. Plankton love it and gobble it up and grow like crazy. Whether or not the carbon is sequestered is a big question, but to claim that 20 tons of iron sulfate are "risky" is just stupid.

The biggest danger to this planet isn't global warming. It's the global ignorance of the masses. And here it is, on display.

Posted by: Tom Lemon | Jan 9, 2009 10:57:17 PM

Global warming is happening: CO2 is a greenhouse gas, and it has been up from 250 ppm to 350 ppm since the industrial revolution, while the last 10 years have been some of the warmest on record. Naysayers dont want to worry about it, but someone needs to do something before positive feedback effects are going to kick in. A melting north pole means that a lot of solar radiation is going to be absorbed by our oceans instead of reflected back by the ice. One fifth of coral reefs are damaged because of the CO2-induced acidification of our oceans.

And now people worry about some scientist finally trying to do something about it?

Posted by: Thomas | Jan 10, 2009 1:16:49 AM

Utter nonsense, the global warming debate is dead, now we moved goal posts and have the climate change debate which will spiral on forever because the very nature of climate is - change.

You cannot work in mainstream media and have the freedom to challenge the perceived norm. So expect more of the same diatribe from Wired et al.

Posted by: jim | Jan 10, 2009 3:18:37 AM

I have to agree totally with Tom Lemon, it is pretty terrifying to read some of the "C--p" which is posted by people in denial about the reality of Global Warming. I've not yet read up about the LOHAFEX experiments but I am all for such experiments taking place so long as they are completely open and all of the results made public.

Posted by: Malcolm. UK | Jan 10, 2009 8:47:32 AM

I think we can all throw any opinions from anyone in the UK out the window. That place is an electronic prison and its information is controlled into oblivion.

I'll restate my earlier post:

I think the REAL danger of "manmade global warming" is the trust of the masses being put by the media in these ethically compromised European scientists. The recommendations of the '95 Global Biodiversity Assessment were to send the planet back into the bronze age and limit human population to 500,000,000. Now, sure enough, they're finding out that mercury improves your brain, vitamins are bad for you, pesticides are good for you, flouride in your water DOESN'T actually make you docile and pleasant, autism is the next movement forward in human evolution, and that humans are the source of warmth on the planet, not the sun.

Corruption is rampant, and it's PROFOUNDLY apparent in the UK. Those poofs have given up on independent thought, and will fit nicely into the prole cages being constructed around them.

Posted by: Paul | Jan 10, 2009 11:30:22 AM

@Paul:

what makes you think that there ist a difference between american an UK-scientists, or of any other nation? Of course you have to say goodbye to the notion, that any media is about truth. It never has been.

Also I find it a very sensible thought to try keep the number of humans smaller and raise the living standards for the already living. And please, I do not mean to kill people, this would be called birth-control. But this is a taboo in almost all nations.

Posted by: thomas m | Jan 10, 2009 12:57:46 PM

the last sentence should be:

And please, I do not mean by killing people. I mean by birth-control. But this is a taboo in almost all nations.

Posted by: thomas m | Jan 10, 2009 1:01:01 PM

'Global warming' or 'climate change' (because the warming has stopped!) is a scam:
www.okgetreal.com

jd

Posted by: Jonathan Dickson | Jan 10, 2009 2:08:17 PM

Hey Guys.

Water vapor is the largest contributor to greenhouse gas (70%?)! Let's just build a gigantic dehumidifier.

Posted by: You know? | Jan 10, 2009 6:14:36 PM

I really don't like nationalism, but I'm sure more people here in the Southern Hemisphere are not that happy to know institutes from Germany and India are willing to conduct experiments here... If they turn out to come with good scientific innovations, the merit goes North. If they're wrong and screw up the ecosystem, all the mess is left for us to deal with. Couldn't you be conducting this experiment on the Arctic, or in the beautiful waters of the Danube or Ganghes rivers?

Posted by: Breno | Jan 10, 2009 11:38:59 PM

This project reminds me, of the plan to coat the polar regions with soot, in a misguided attempt, to halt the coming ice age. The climatologists then, (50s and 60s) were convinced (with consensus) that the planet was quickly sliding into a ice age.

To advocate real action, before we know exactly what we are doing, is extremely dangerous and reckless. To pollute our ocean, with iron sulphate, is the natural outcome of panic. Unintended consequences will occur. The climate disaster, fear mongering, must stop and more cool reasoning must prevail. (pun intended)

Posted by: G. Karst | Jan 11, 2009 8:59:34 AM

We (man) are so wise in our own eyes.

Allowing this is akin to allowing your 6 year old to tune your Ferrarri. Remember when the "experts" introduced the Mongoose to Hawaii to control the rats? Now they have Mongoose AND rats. Oops! We have such little understanding of how the world works.

Posted by: Mark | Jan 11, 2009 9:01:25 AM

To those who think any chemical dumping is harmless. Also the sea water pH will be changed, locally. Iron (ferrous sulfate) is the leading cause of accidental poisonings in children.29 30 31 The incidence of iron poisonings in young children increased dramatically in 1986.

<http://www.truestarhealth.net/Notes/2870003.html>

Posted by: G. Karst | Jan 11, 2009 9:34:47 AM

1. The Earth's axis gives us summer and winter; the wobble (oscillation) of the Earth's axis gives us both global warming and ice ages.
2. Carbon Dioxide follows global warming not vice versa.
3. Global climate change (weather) hysteria is the latest "Chicken Little" scam to raise taxes for government bureaucrats.

Posted by: Peter Ramsey | Jan 11, 2009 10:07:15 AM

Plato, and others before him, had noted the stars appear to "fall back" 1 degree over 72 years. He divided the 26 thousand year cycle into the 12 Ages of Man. December 21, 2012 is the first day of Aquarius (See 'Precession of the Equinoxes'). The world wasn't made yesterday but any fool should realize you can't align the pyramids to the stars.

Posted by: Peter Ramsey | Jan 11, 2009 10:11:55 AM

1. Precession affects global climate,
2. Scientists lack an appreciation for history,
3. Lake Vostok ice core samples (25 years ago!) proved that CO2 levels rise for about 21,000 years and then stop as the planet cools.

Posted by: Peter Ramsey | Jan 11, 2009 10:13:47 AM

As much as I like Wired, your articles really seem to attract the nutcases. Or maybe nerds are just predisposed to believe all kinds of conspiracy theory nonsense? It just shocks me how many of the above comments go against conventional scientific wisdom.

Also, note to Wired, stop using the word 'hack' outside of it's original context. Please. It just sounds juvenile at this point.

Posted by: Ross | Jan 11, 2009 1:31:53 PM

If ther is any biochemist reading this article could you pleae explain what hjappenes with sulfur? They are going to dump not just iron but iron sulfate, which is the derivative of sulfur acid. let's say, iron ion is absorbed by plancton (is it really?). What happens with the remainder - sulfate ion? Will it react with some other elements in ocean water, creating another kind of sulfate/sulfite? Can the actual acid be created as a result of these reactions, even small amounts? Is not it they are polluting the ocean with sulfur, the thing we actually are trying to prevent?

Please, if any of you readers are chemists, explain this, because it is really confusing. Fro now it looks like they are trying to pollute one of few relatively clean areas of the ocean still left on the Earth.

Posted by: diana | Jan 11, 2009 7:51:34 PM

Dear Ross,
the beauty and the greatness of science is that there is no such thing as "conventional scientific wisdom" in existance, otherwise we would not have moved past flat Earth and 33 teeth in men theories.
Sorry for stating such obvious things

Posted by: Diana | Jan 11, 2009 7:59:48 PM

i just dont get it
why people decide not to try stuff untill more 'evidence' shows up
do they think such 'evidence' will just walk up to them one day and shout: 'its ok!' or 'you'll die if you try!'
you have to experiment to find out, aint that what science is all about?

Posted by: filipe | Jan 12, 2009 3:30:50 AM

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