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## [Bill Gates Funds Seawater Cloud Seeding, "the Most Benign Form of Geoengineering"](#)



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Bill Gates is getting serious about geoengineering. Back in January, after the failure of governments at the Copenhagen Climate Change summit to do anything serious, the billionaire former head of Microsoft [announced he's give nearly \\$5 million](#) of his fortune to fund research into geoengineering projects. Recently he announced his first concrete foray into the field: giving \$300,000 to project that would spray seawater into the sky, seeding clouds that would hopefully block some of the sun's UV rays.

The machines, developed by a San Francisco-based research group called Silver Lining, turn seawater into tiny particles that can be shot up over 3,000 feet in the air. The particles increase the density of clouds by increasing the amount of nuclei contained within. Silver Lining's floating machines can suck up ten tons of water per second. If all



goes well, Silver Lining plans to test the process with 10 ships spread throughout 3800 square miles of ocean [[Inhabitat](#)].



Most of the [major geoengineering ideas](#) that have been proposed—launching a reflective shield into space, artificial trees to pull carbon dioxide out of the air—are extremely expensive and difficult.

However, a study last year calculated that a fleet of 1,900 ships costing £5 billion (about \$7.5 billion) could arrest the rise in temperature by criss-crossing the oceans and spraying seawater from tall funnels to whiten clouds and increase their reflectivity [[The Times](#)].

Unlike, say, seeding the sea with iron, seawater spraying doesn’t involve dumping additional material into the environment, so it would require less arduous permit-getting to test. And as opposed to the plans to put particulates in the clouds, seawater spraying would be easier to shut down and wouldn’t affect weather patters for quite as long.

Armand Neukermans, who is leading the research, said that whitening clouds was “the most benign form of engineering” because, while it might alter rainfall, the effects would cease soon after the machines were switched off [[The Times](#)].

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May 10th, 2010 6:41 PM Tags: [Bill Gates](#), [geoengineering](#)  
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## 17 Responses to “Bill Gates Funds Seawater Cloud Seeding, “the Most Benign Form of Geoengineering””

1. 1. *Nenad* Says:

[May 10th, 2010 at 8:07 pm](#)

How about planting more trees?!

2. 2. *LLORNKCOR* Says:

[May 10th, 2010 at 11:11 pm](#)

It’s raining plankton, hallelujah, it’s raining plankton!

“... artificial trees to pull carbon dioxide out of the air—are extremely expensive and difficult.” Hmmm, real trees are pretty cheap.

3. 3. *Frank* Says:

[May 10th, 2010 at 11:23 pm](#)

Just imagine the unintended consequences of this endeavor, if it really works.

Frank from AZ

4. 4. *nick* Says:

[May 11th, 2010 at 5:23 am](#)

Dear Frank,

nebulous question. Could be anything from “rain” to “armageddon,” for an answer.

At least this is one geoengineering scheme that doesn’t rely on more pollution as the answer.

5. 5. *JJ* Says:

[May 11th, 2010 at 6:21 am](#)

I already get enough rain and snow in my neck of the woods. Plus, doesn't water vapor and cloud cover only contribute to global warming...?

<http://www.sciencedaily.com/releases/2009/07/090723141812.htm>

6. 6. *Salty Dog* Says:  
[May 11th, 2010 at 9:42 am](#)

Don't these jokers realize that if you spray salt water in the air it will precipitate on land and poison the soil? They need to spray fresh water if they want to participate in this con game.

7. 7. *GeneQueen* Says:  
[May 11th, 2010 at 10:10 am](#)

This video on cloud seeding made me chuckle... I hope you do too <http://www.scienceinseconds.com/video.php?vId=91&tId=>

8. 8. *John* Says:  
[May 11th, 2010 at 11:14 am](#)

It is the acme of foolishness to think that for one we completely understand this complex system much less able to change it....

9. 9. *Apo* Says:  
[May 11th, 2010 at 12:04 pm](#)

The weather is such a complex and chaotic system that we can barely begin to predict the weather for next Tuesday – but we could somehow seed clouds on a mass scale and understand the potential outcomes?

10. 10. *Junior* Says:  
[May 11th, 2010 at 2:09 pm](#)

I can think of better ways to waste 5 million dollars.

11. 11. *amphiox* Says:  
[May 11th, 2010 at 2:57 pm](#)

Hmmm, real trees are pretty cheap.

Not really, if you consider the additional things you have to do to ensure an environment optimal for the successful growth of those trees, the number you need to plant and care for, and the length of time (decades) it takes for them to reach peak efficiency.

It is the acme of foolishness to think that for one we completely understand this complex system much less able to change it....

There comes a time, when faced with an imminent threat, when we have to accept the reality of incomplete information, commit to action, get on with it, and take our chances.

Have we reached that point yet? Probably not quite, but it's getting close.

12. 12. *good grief* Says:  
[May 11th, 2010 at 3:53 pm](#)

This is a TERRIBLE IDEA.

The sun = life for all living organisms on earth. What gives this guy the right to do this? Answer, he has none.

Anybody who's used his software knows he should NOT be allowed to geoengineer the earth.

13. 13. *Fear Fear* Says:  
[May 12th, 2010 at 9:47 am](#)

can anyone say waterworld? lungs and gills for all!

14. 14. *carddan* Says:  
[May 12th, 2010 at 10:27 am](#)

Cloud cover does reflect a portion of the sun’s radiation into space. Water vapor on the other hand, is a much more efficient greenhouse gas than CO2. Whether or not you believe in Anthropogenic Global Warming, it is a leap to think we understand the balance between these two simple processes. The arrogance and hubris of some men is incredible.

There are so many things wrong with this idea it is impressive.

15. 15. *Bruno Domingues* Says:  
[May 13th, 2010 at 5:21 am](#)

I think that if you are not sure, do not mess with it.

Lowering our albedo might seem a good idea now, but increased H2O in the atmosphere will also increase our greenhouse effect, since less IR radiation is escape to space, instead being radiated down.

With one of these effect will be dominant? Yep, we are not sure. Don’t come telling that this study or that says so, that’s bull and we all know it.

Does anyone still remember how late in the studies did the increased gases from permafrost losses got to be included in the sims? What are we forgetting this time?

Truth is we have been playing with fire for some time now, and its starting to burn...  
... and trying to solve this the cheapest way is not going to work.

16. 16. *Henk* Says:  
[May 15th, 2010 at 2:33 pm](#)

so if we assume that what goes up, must come down.. and if we position a number of these craft along the west coast of a desert area (like Western Sahara and West Australia) would it also produce more rain in those arid areas?

and would that also apply to the salt in the dispersed ocean water? or would a component of these contraptions take care of some sort of a desalination?

17. 17. *Z-Man* Says:  
[July 21st, 2010 at 9:18 am](#)

Wow, That’s great. The majority of people will sit and do little to nothing. (Maybe just blog about it) But backing up your thoughts with money is always good place to start  
I’d suggest testing this out just West of Morocco. First build computer models of course. It would appear to me with the prevailing trade winds, northern Africa would get more rain. Historically this has happened..... And then we can grow trees.

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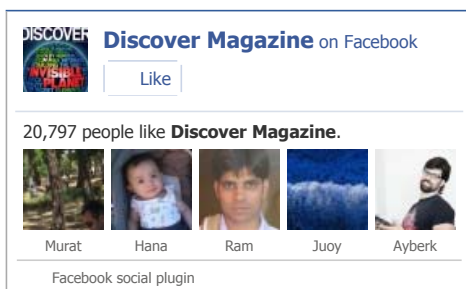
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