Ocean geoengineering tests violate UN convention: green groups

June 8 2020, by Patrick Galey

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Experimental geoengineering schemes to protect areas such as

Australia's Great Barrier Reef are "distracting technofixes" that violate an international moratorium on the largely untested tech projects, a coalition of nearly 200 environmental groups said Monday.

On the occasion of World Oceans Day, the Hands Off Mother Earth (HOME) Campaign urged communities and governments to "vigorously oppose" marine geoengineering projects that it said could imperil Earth's already vulnerable sea ecosystems.

Up to 90 percent of the excess heat produced by mankind's burning of fossil fuels is absorbed by the world's oceans.

And as atmospheric greenhouse gas levels continue to rise despite the 2015 Paris climate deal, scientists and industry are coming up with ways to try to mitigate the damage caused by rising temperatures using technology.

One such plan, which began preliminary experiments last month, involves spraying trillions of microscopic salt crystals into the air above the Great Barrier Reef.

Its proponents hope that the salt will mix with low-altitude clouds, making them brighter and able to reflect more sunlight away from the reef.

But HOME said the project contravenes a 2010 United Nations moratorium on ocean geoengineering.

"Geoengineers are flying in the face of global moratoria agreed at the UN," said Silvia Ribeiro of the ETC Group that monitors the projects.

"The potential for large-scale versions of these project—driven by the fossil fuel industry's motivation to keep extracting, selling and

burning—poses a clear and present danger to our oceans."

Coral reefs—which cover less than one percent of the ocean's surface but support a quarter of marine species—are especially vulnerable to warming waters.

Recent spikes in tropical and sub-tropical sea surface temperatures, magnified by an especially potent El Nino, have triggered an unprecedented mass bleaching of corals, affecting 75 percent of global reefs.

'Dangerous precedent'

The Intergovernmental Panel on Climate Change in 2018 issued its landmark report on the Paris deal temperature goals—"well below" two degrees Celsius (3.6 Farenheit) above pre-industrial levels and a cap of 1.5C if at all possible.

It found that at 1.5C hotter, more than 70 percent of Earth's coral reefs will likely die off; at 2C, that increases to 99 percent.

HOME said that the Great Barrier Reef testing sets a "dangerous new precedent" and fails to take into account the underlying cause of rising ocean temperatures and coral bleaching: fossil fuel emissions.

"To really address climate change, we need serious cuts to CO2 emissions, not distracting technofixes," said Louise Sales from Friends of the Earth Australia's Emerging Tech Project.

Other marine geoengineering projects currently undergoing testing include injecting glass micro-bubbles into sea ice in Alaska and Canada in the hope that they will reflect more sunlight.

That project has already been opposed by indigenous groups.

In waters off the coast of Chile and Peru one firm has begun an ocean fertilisation project aimed at promoting the growth of plankton which consume carbon dioxide absorbed by the ocean.

HOME said that at large scale the technique threatened to create "dead zones" of deoxygenated water devoid of life.

"These experiments would violate international moratoria, and scientific evidence indicates that the risks and impacts far outweigh the supposed benefits," said Samuel Leiva from Terram, a Chilean NGO.

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