A peculiar type of activism is manifesting with regard to solar geoengineering. This proposed set of technologies to reduce climate change has been subject to <u>only a few</u> <u>outdoor experiments</u>. One has been in the pipeline for <u>almost a decade</u>: The <u>Stratospheric</u> <u>Controlled Perturbation Experiment</u> (SCoPEx) would involve the launch of a balloon into the stratosphere, where it would move horizontally, spray one or more fine mists, and then circle back to measure chemical and physical characteristics and processes. Even though this would pose negligible environmental risks (passenger airplanes each release greater amounts of aerosols in a few minutes of each flight), the Harvard University* team set up an <u>independent Advisory Committee</u> (indirectly, via an <u>independent search committee</u>) to suggest governance procedures and to recommend whether the outdoor experiment should go forward. In the meantime, the scientists decided to first test the balloon and other equipment, with no spraying.

Nevertheless, the strident opponents of solar geoengineering are digging in their heels. Last month, several green and anti-technology groups wrote to the government of Sweden, where the SCoPEx balloons are to launch. And this month, the Saami Council sent a similar one to the SCoPEx Advisory Committee [PDF]. The two statements have much in common: They each demand the test flight not be allowed to proceed. Their arguments entirely regard the overall solar geoengineering endeavor, not SCoPEx per se. And both letters make clear that their authors oppose all solar geoengineering activities. At the very least, this is an internally consistent position. However, I posit that a societal dialogue about whether to halt progress toward a seemingly efficacious means to reduce climate change should include representatives of those who are most vulnerable to climate change, not just a few activist groups, several of which are are from the 5th least climate-vulnerable country in the world; that country's government; and a US-based Advisory Committee.

Both letters also emphasize the lack of engagement with the local populations. The activist groups' letter says:

the decision-making process does not appear to include any populations potentially affected by the technology in Sweden or globally, neither do there seem to have been sincere processes to ensure free prior and informed consent in accordance with the United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP). and that of the Saami Council:

the project has [not] entered into any dialogue with either the Swedish government, its authorities, the Swedish research community, Swedish civil society, or the Saami people.

First, as a brief matter of international law, the <u>nonbinding UNDRIP's</u> relevant article 32.3 provides that

States shall consult and cooperate in good faith with the indigenous peoples concerned through their own representative institutions in order to obtain their free and informed consent prior to the approval of any project affecting their lands or territories and other resources, particularly in connection with the development, utilization or exploitation of mineral, water or other resources.

Neither the SCoPEx test flight nor the actual experiment would affect the Saami's lands or territories and other resources. The UNDRIP is thus not applicable to SCoPEx.

More relevantly, in January the Advisory Committee issued a seven-page <u>"Proposed</u> <u>Engagement Process for SCoPEx" [PDF]</u> that includes this:

The external engagement team will lead the local deliberative dialogue. This team must include trusted local partners who help find and select stakeholder groups and encourage people to participate. Using information on where the experiment will occur, they will identify and recruit groups of local stakeholders and publics to participate in deliberative dialogues. The stakeholder groups will reflect the diversity of the region in which the experiment takes place (including the launch and landing sites). The Committee will direct the team to strive for inclusivity and representation of communities. Importantly, the team will be required to make extra effort to include people who are from communities that are historically underserved or climate-vulnerable, or currently and historically hold less power.**

And as early as May of last year, the Advisory Committee wrote that it

will structure our work, recommendations, and engagement with Harvard leadership and the research team around four complementary elements... The design of a robust public education and engagement framework to consider the experiment's impacts and implications at scales from local to global. This design process will invite input from local communities near the launch site, people who care deeply about the project and its implications, and, to the extent feasible, people who are most vulnerable to climate change and to the effects of geoengineering.

It is thus premature, misleading, and disingenuous to berate the SCoPEx team and its Advisory Committee for failing to engage with various local populations and actors when their plans *to do exactly that* have been readily available online for almost a year.

Beyond this, the letters heavily lean on insinuation, misleading statements, and-in that of the activist groups-falsehoods:

SCoPEx's proposed tests... are fundamentally incompatible with the precautionary principle, in breach of international norms... the UN Convention on Biological Diversity (CBD) introduced 2008-10 a de facto moratorium on geoengineering... The idea of the possible future use of [stratospheric aerosol injection] is already serving as an excuse for actors who directly benefit and profit from continued carbon emissions to delay and evade action.

Solar geoengineering is a risk-risk tradeoff, in which researching and developing such a means to reduce climate change would itself be precautionary [PDF] (although this clause of the letter is a subjective judgment). The tests would not breach any international norms, as the reasonably foreseeable risks will neither be transboundary nor affect widely-recognized human rights. The CBD parties' 2010 cautionary decision is not a moratorium; in fact, they later noted "that more transdisciplinary research... is needed in order to better understand the impacts of climate-related geoengineering." No "actors who directly benefit and profit from continued carbon emissions" are using solar geoengineering as an excuse "to delay and evade action."

As a rule of thumb, the letters' authors are the types of actors whose perspectives, concerns, and objections generally deserve serious hearings. Environmental organizations often speak important truths to obstructive powers. Indigenous groups have been unjustly

exploited and marginalized. Local populations can experience unwanted impacts of outsiders' actions as well as offer useful specialized knowledge.



However, in this case, these authors are wrong and their tactics could derail a line of investigation that appears able to substantially reduce climate change and its impacts. They are using their local position to oppose a particular small-scale outdoor test-a textbook example of "not in my backyard" (NIMBY) rhetoric. However, their arguments are that solar geoengineering should not proceed whatsoever-in effect, *not in anyone's backyard*. The groups are "NIABYs."

* Disclosure: I am an unpaid <u>research affiliate of Harvard's Solar Geoengineering Research</u> <u>Program</u>. The Program has some personal overlap with the SCoPEx team and has provided some of the project's funding.

** A few months ago, my Emmett Institute colleagues <u>Ted Parson, Charlie Corbett, and I</u> <u>submitted comments to the Advisory Committee</u> on its draft governance proposal, with particular attention to its suggestions regarding public engagement.