



# the weekly anthropocene

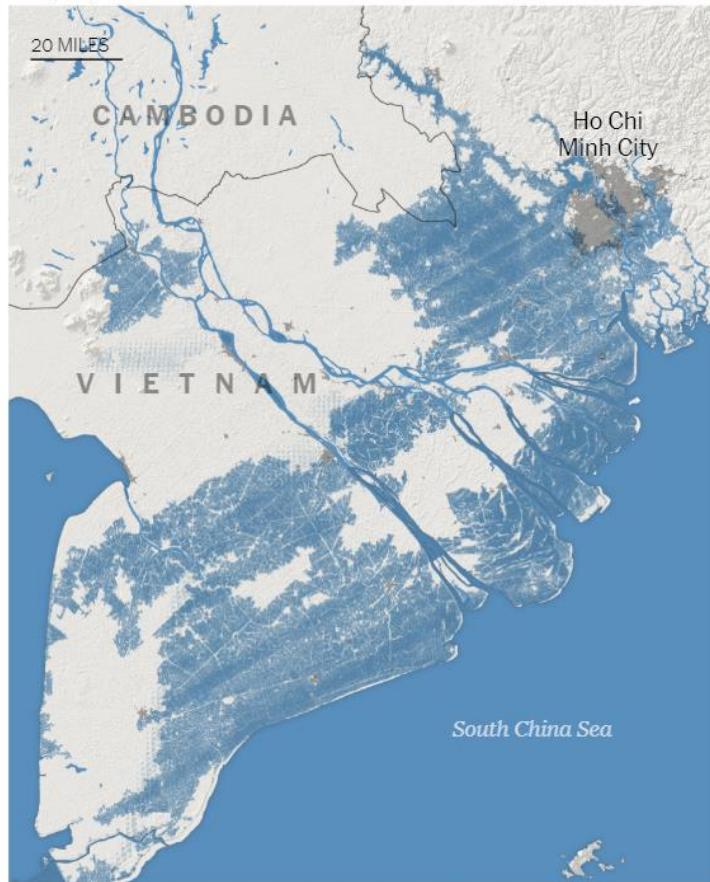
*dispatches from the wild, weird world of humanity and its biosphere*



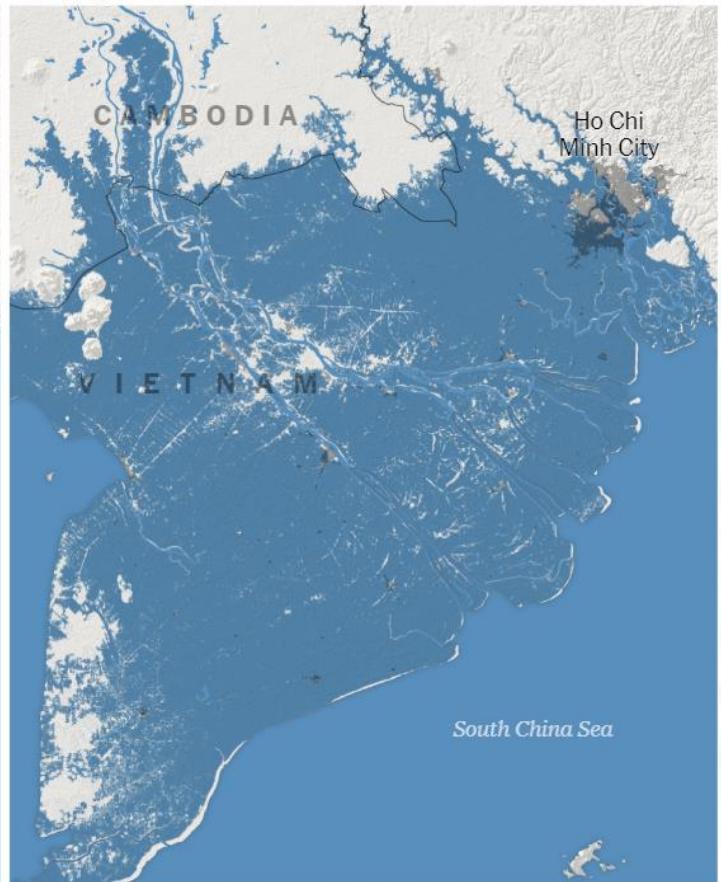
By Sam Matey, November 6 2019

■ Land underwater at high tide ■ Populated area

Old projection for 2050



New projection for 2050



**The World's Oceans: Climate Change and Sea Level Rise.** A deeply disturbing new study recently published in *Nature Communications* has found that Earth is on course for much greater sea level rise than previously thought. This is not due to an increase in expected ice melt, but due to new data on coastal elevation, which revealed that many inhabited lands are lower-lying than previously thought, and thus at greater risk of flooding. Under current sea level rise projections, by the year 2050, land now home to 300 million people will fall below the elevation of an average yearly coastal flood, and by 2100, land now home to 200 million people could sit below the high tide line. The study identified several areas of extreme risk, including much of southern Louisiana, southern Bangladesh, coastal Iraq, and nearly all of southern Vietnam (see above), as well as the cities of Miami, Florida, Shanghai, China, Bangkok, Thailand, Mumbai, India, and Alexandria, Egypt. This underscores the importance of adaptive defenses such as seawalls and coastal wetlands-and reducing emissions as fast as possible. For the detailed interactive map showing the areas newly found to be at risk, see [coastal.climatecentral.org](http://coastal.climatecentral.org). For the study, see [tinyurl.com/y444wpwg](http://tinyurl.com/y444wpwg). For the New York Times' take, see [tinyurl.com/y6apqrg7](http://tinyurl.com/y6apqrg7). For another article, see [tinyurl.com/y3kt8o8p](http://tinyurl.com/y3kt8o8p).



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**Chile: Climate Change and Inequality.** Until recently, COP 25, the 25<sup>th</sup> annual UN meeting to address climate change, was set to be held in December 2019 in Santiago, Chile. (COP stands for Conference of the Parties, and is the major international framework for nation-level climate action: the Paris Agreement was negotiated at COP 21 in 2015). However, on October 14<sup>th</sup>, massive protests erupted across Chile in response to a proposed raise in the Metro fares, with the scope quickly expanding to address broader discontent with Chile's high cost of living and extreme inequality. Over a million Chileans took to the streets, and many are now demanding a new constitution for the country. Property destruction, looting, and burning down metro stations led to an army crackdown, and the current toll stands at 23 dead, 1,600 wounded, and over 4,000 detained. Given the unrest in Chile, COP 25 is now set to take place in Madrid, Spain. The Chilean situation provides a good jumping-off point to investigate the relationship between climate change and inequality. Chile has one of the highest Gini coefficients (a standard measure of a society's economic inequality, on a scale where 0=everyone has an equal amount and 100=one person has everything and everyone else has nothing) of any developed country. In the most recent year with World Bank data on the Gini coefficient (a date that varies by country), Chile's Gini coefficient was 46.6, compared to the USA's 41.5, Canada's 34 and Finland's 27.1. Furthermore, the current situation in Chile is exacerbated by a feedback loop between economic inequality and the new stressors brought by climate change. Chile is suffering from a serious and intensifying drought, with the agriculturally vital Aconcagua Valley undergoing a climactic shift from semi-arid to hyper-arid. Furthermore, a legal regime that allows agribusinesses to use an extremely high proportion of available water has driven many small farmers to the point of penury.

This isn't just a Chilean issue—climate change and inequality are forming a toxic cocktail in jurisdictions around the world. In Miami, famously, landlocked majority-minority neighborhoods are experiencing "climate gentrification" as their higher-elevation homes suddenly become attractive to rich former beach house-owners seeking a refuge from sea level rise. A study published in *Science* in 2017 found that climate change will likely disproportionately harm the poorest third of counties in the US, a group concentrated in the South and the Midwest, as agricultural yields fall, sea levels rise, storms intensify, and extreme heat takes its toll. They also found that counties in already well-off regions like the Pacific Northwest and New England could see net economic benefits, as warmer temperatures might boost agriculture and other fields in those cool climes. The world abounds with more such examples. "We risk a 'climate apartheid' scenario where the wealthy pay to escape overheating, hunger and conflict while the rest of the world is left to suffer," warned the UN Special Rapporteur for extreme poverty and human rights. In the Anthropocene, it will be critical to work to ensure that the most vulnerable people in the world are not pushed further behind by climate change. For more on the Chilean situation, see [tinyurl.com/y3dzxuc9](http://tinyurl.com/y3dzxuc9) and [tinyurl.com/y6atbxo5](http://tinyurl.com/y6atbxo5). For more on Miami, see [tinyurl.com/y6rlotwa](http://tinyurl.com/y6rlotwa). For the USA *Science* study, see [tinyurl.com/y4bgqv7m](http://tinyurl.com/y4bgqv7m). For the UN warning, see [tinyurl.com/y3t5hqw9](http://tinyurl.com/y3t5hqw9).



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**Maine: Climate Change and NECEC.** The New England Clean Energy Connect (NECEC) plan is a proposed project to arrange a network of transmission lines to send 1,200 megawatts of energy from HydroQuebec's Canadian dams to the Massachusetts electricity grid. This is a great example of the kind of project that will be vital in establishing a renewable energy-powered society. However, this is becoming a controversial issue in Maine, with some environmental groups (including those that this writer normally agrees with) opposing NECEC. They, reasonably, object to some of the past negative effects of the dams, such as toxic methylmercury formed during construction and inadequate consultation with local indigenous peoples. However, some of the other reasons given to oppose NECEC don't seem to hold water.

One of the two major arguments against NECEC is that it is unfair to Maine: NECEC will not provide any energy to Mainers, while it will use Maine land. This is inarguable. The purpose of NECEC is to send energy from dams in Quebec to consumers in Massachusetts. However, while NECEC will not bring any energy to Maine, Governor Janet Mills' excellent negotiating skills have ensured that it will pay handsomely for the privilege of using Maine land. Governor Mills has gotten HydroQuebec to pay for a massive benefits package for Maine in return for authorizing their NECEC project, including a \$50 million fund for benefits for low-income energy customers, a \$10 million broadband infrastructure investment fund, a \$140 million rate relief fund, a \$15 million heat pump fund, and a \$10 million fund to build a new network of electric vehicle charging stations. Oh, and Mainers aren't paying a thing for any of this—Massachusetts is paying for the entire NECEC project. As a Maine resident and voter, this seems like a good deal.

The second major argument against NECEC is that, in addition to upgrading existing powerlines, NECEC will build a new 50-mile transmission line through western Maine forests, clearing 964 acres of trees to do so. Yes, this is a loss. However, western Maine is a broad, well-preserved forest ecosystem, and is unlikely to suffer any notable damage as a result of such a relatively small project. For context, 411,000 acres of trees are cut down in Maine every year, as part of ongoing timber harvesting and construction projects. NECEC will increase deforestation by about 0.2 percent. Many groups are now arguing that the issue is NECEC's "visual" impact. Yes, it would be aesthetically disturbing to come across a power line in the middle of a long stretch of pristine forest, but it's not objectively harmful. Furthermore, NECEC is already working to accommodate these concerns, and has already adjusted the plan so that the new line will run under the famous Kennebec Gorge instead of over it.

In short, NECEC will help replace fossil fuels and expand New England's renewable energy grid, provide hundreds of millions of dollars in benefits to Maine, and boost local electric vehicles, at minimal environmental cost. On balance, this newsletter supports it. For more, read Janet Mills' elucidating speech on NECEC at [tinyurl.com/y3fx9sjb](http://tinyurl.com/y3fx9sjb). For another article on the subject, see [tinyurl.com/yxrbk4cb](http://tinyurl.com/yxrbk4cb). The project website is [www.necleanenergyconnect.org/](http://www.necleanenergyconnect.org/).