

The Little Ice Age wasn't actually an ice age, but it was a period of markedly colder temperatures that began in the 1200s and lasted into the mid-1800s, with the 1600s a particular low point. It was a time when London winter fairs were regularly held on the middle of a frozen Thames river, glaciers grew, and sea ice expanded. That episode of climate disruption may give us some insights into how current global warming may impact society.

Weather changes in the Little Ice Age were less unidirectional and less globally uniform than current climate change. Different places hit their lowest temperatures at different times, and there were often large gyrations in temperatures from year to year. . One cause was that sun's radiation decreased for unknown reasons — there were decades with no sunspots at all. There were also an unusual number of huge volcanic eruptions, which caused some of the worst periods. Other causes are still being debated. Climate denialists are fond of using the Little Ice Age as evidence of “natural fluctuations” in climate. But we know that this isn't true of current climate change — if anything, natural forces would be making the planet cooler again if we weren't dumping so much carbon in the atmosphere. Moreover, it [appears](#) that the magnitude of the temperature shift was smaller than what we have already experienced today, let alone what is in store for the future.

Despite all these differences, the Little Ice Age does have something to teach us about the societal impacts of climate disruption. By and large, the effects were not good. Widespread famines took place, causing many deaths directly and others by making people vulnerable to disease. The famines led to massive social unrest, often threatening governments, and also shifted the military balance of power. For instance, the French Revolution followed on the heels of years with terrible harvests. Extreme weather events of various kinds increased. An unprecedented storm was a major reason why the Spanish Armada was destroyed. Some of the richest countries like France suffered the most.

The Dutch were a rare exception. They were already a trading people, which was an advantage at a time when crops often failed in some places more than others. They pioneered new agricultural methods to increase crop yields, along with improved ship designs. Roads were often impassable, but they had the advantage of an extensive system of canals for transportation. They had a head start in dealing with floods, though even they were overwhelmed at some point. Indeed, the Dutch Golden Age took place in the deepest depths of the Little Ice Age.

Although we have much more advanced technologies, the world also has far more mouths to feed and vast numbers of people who already live in dire poverty. There is no reason to expect that our societies will be free from the disruptive effects of climate change, any more

than the societies of the Little Ice Age. The Dutch are an object lesson in the possibility of managing to cope with the turmoil of climate disruption. But it remains to be seen whether U.S. society will prove to be as nimble and inventive as the Dutch in responding to the challenges.