

'Doomsday' seed vault meant to survive global disasters breached by climate change

Fortunately, no seeds were damaged

by [Alessandra Potenza](#) | [@ale_potenza](#) | May 19, 2017, 1:48pm EDT



The Global Seed Vault | [Crop Trust](#)

The seed bank designed to preserve the world's crops and plants in the event of global disaster isn't prepared to withstand the greatest global disaster facing our planet: global warming. Melting permafrost on the Norwegian island of Spitsbergen, where the [Svalbard Global Seed Vault](#) is located, has seeped into the seed bank, raising questions of how the structure will be able to survive in the future [as the Earth keeps warming](#).

The seed vault is built in an abandoned Arctic coal mine, deep inside a mountain. It contains about a million packets of seeds from almost every country in the world, representing ["the most diverse collection of food crop seeds."](#) In 2015, the ongoing civil war in Syria [prompted researchers](#) in the Middle East to withdraw some seeds to replace those previously stored in a gene bank in war-torn Aleppo.

"BUILT TO STAND THE TEST OF TIME"

The structure was built underneath the permafrost so it could be “a fail-safe seed storage facility, built to stand the test of time — and the challenge of natural or man-made disasters,” [as the seed bank’s website says](#). But oh, the irony. Unusually warm temperatures in the winter have caused rain, and the permafrost has been melting. “It was not in our plans to think that the permafrost would not be there and that it would experience extreme weather like that,” Hege Njaa Aschim, from the Norwegian government, which owns the vault, [told *The Guardian*](#).

Fortunately, the water hasn’t flooded the vault itself. It only got to the entrance of the tunnel, where it froze. (The seeds are stored at minus 0.4 degrees Fahrenheit.) But the incident has raised questions over the durability of a seed bank that was supposed to operate without people’s intervention.

The vault managers are now waterproofing the facility and digging trenches to channel melt and rainwater away, according to *The Guardian*. They’ve also installed pumps in case the vault floods again. “We have to find solutions. It is a big responsibility and we take it very seriously. We are doing this for the world,” Åsmund Asdal at the Nordic Genetic Resource Centre, which operates the seed vault, told *The Guardian*. “This is supposed to last for eternity.”