

## Svalbard Global Seed Vault

### Why in news?

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Svalbard Global Seed Vault (SGSV) facility in Norway has recently faced a grave existential threat.

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### What is SGSV?

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- SGSV facility lies 360 feet inside of the 1,500-foot Platåberget mountain in Nordenskiöld Land on the island of Spitsbergen in Svalbard, Norway.

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- It is a vault that contains humanity's ultimate food security.

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- Millions of seeds of various crop varieties are locked in airtight boxes at minus 18 degrees Celsius.

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- It is built to withstand manmade and natural disasters.

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- It is theoretically protected against conventional bombs, and sits out of reach of rising sea levels.

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- Norway's government owns the vault.

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- Depositors retain ownership rights.

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- India has sent around 9.5 crore seeds to Svalbard.

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# Doomsday seed vault

A global arctic vault that houses seeds from all known varieties of food crops opened Feb. 26, 2008.

## Why needed?

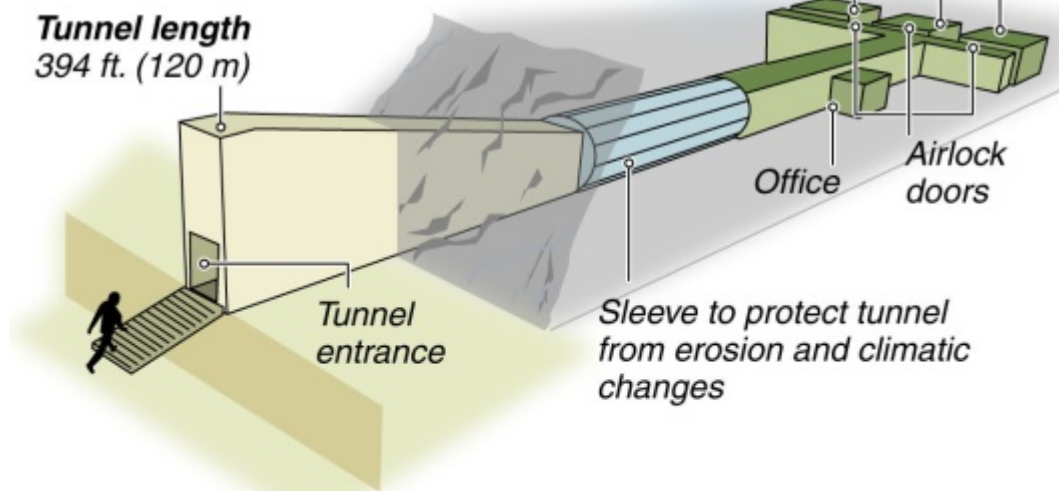
Protect seeds against plant diseases and catastrophes such as nuclear war, asteroid strikes and climate change

## Storage

In-rock facility, situated 394 ft. (120 m) above present sea level, will remain above sea level even if ice sheets melt due to global warming



**Tunnel length**  
394 ft. (120 m)



**Capacity**  
Up to 4.5 million seed samples

**Permafrost**  
Temperature kept stable at 0°F (-18°C) by electrically powered freezer unit; in case of technical breakdown, temperature will never exceed 25°F (-4°C)

**Construction**  
Began in March 2007 in a mountainside near Longyearbyen

Source: Statsbygg Norway

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**What is the threat?**

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- Permafrost refers to the perennially frozen soil found in the Earth's higher latitudes.  
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- Technically, it is ground that remains at or below a temperature of 0°C for at least 2 consecutive years.  
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- The permafrost around the entrance of the vault melted, flooding the access tunnel with water.  
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- The thaw in the permafrost around the entrance of the facility is likely the result of consistently rising global temperatures.  
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- The builders of the SGSV announced that repairs were under way at the facility, and that water had reached no seeds.  
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**Source: The Indian Express**

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