

CLOUD SEEDING

For as long as people have existed, they've wished for control over the weather. Farmers have prayed for rain during dry spells, and event organizers have hoped for clear skies. The idea of making it rain on command might sound like sci-fi, but cloud seeding is a real scientific process that has been around since the 1940s. It works by releasing tiny particles of silver iodide or other substances into clouds, encouraging water droplets to form and fall as rain or snow. While



it's not a magic switch, cloud seeding has been used to ease droughts, reduce hail damage, and increase snowfall at ski resorts. It may not be as dramatic as the weather-control machines seen in movies, but it's already helping manage water resources.

Despite its benefits, cloud seeding is often misrepresented, thanks to Hollywood's tendency to exaggerate. Films like *Geostorm* and *The Day After Tomorrow* depict weather manipulation leading to disasters, reinforcing fears about tampering with nature. In reality, cloud seeding doesn't create storms or trigger extreme weather—it simply enhances natural precipitation under the right conditions. The process is closely monitored and follows strict scientific guidelines to ensure safety. While it's far from the chaotic weather experiments on screen, it still raises questions about how much we should interfere with natural systems.

With the growing threat of water scarcity, many countries are investing in cloud seeding to boost water supplies. Nations like China, the United States, and the United Arab Emirates have led efforts to combat droughts and sustain agriculture. In 2008, China famously used cloud seeding before the Beijing Olympics to keep the skies clear. More recently, the UAE has deployed drones to release electrical charges into clouds to stimulate rainfall. This ongoing research highlights cloud seeding's potential as a climate adaptation tool, especially as global temperatures rise and droughts become more frequent.



While cloud seeding offers promising benefits, uncertainties remain. Scientists are still studying its long-term effects, particularly whether altering rainfall in one region could impact precipitation elsewhere. Ethical concerns also arise when one country modifies its weather, potentially affecting neighbouring areas. As research continues, cloud seeding remains a fascinating yet complex tool in managing water resources. Unlike Hollywood's dramatic take on weather control, the real story of cloud seeding is about finding practical ways to work with nature, ensuring a more sustainable future for generations to come.