

Solar Radiation Modification (SRM) FAQs

Solar radiation modification (SRM), or solar geoengineering, refers to proposed technologies that could cool Earth by reflecting sunlight into space or by releasing atmospheric heat.

Is SRM a solution to climate change?

While SRM might be able to lower global temperatures, it would not reduce greenhouse gas pollution, stop ocean acidification, halt sea level rise and polar ice loss, or restore the climate to pre-industrial conditions.

Is SRM already being used? Or could it be deployed soon?

Large-scale SRM deployment has not yet happened. A few small outdoor experiments have been proposed or attempted, but most have been canceled due to community concerns regarding lack of oversight. Most SRM research uses computer models, not outdoor experiments. Projections are uncertain, but some scientists think SRM deployment could happen later this century.

Is SRM the same thing as “chemtrails” or weather modification/manipulation?

No, they are different. SRM would cool Earth by reflecting sunlight or releasing heat. Weather modification aims to change local weather patterns (for example, by increasing rainfall). The chemtrails theory alleges that airplanes intentionally spray chemicals for nefarious purposes, but there is no scientific evidence to support this claim.

Is SRM a cheap and easy climate fix?

While SRM could be less costly than the damages from unchecked climate change, it will not solve climate change and could create new risks and uncertainties.

If SRM is deployed and problems arise, can it be stopped easily?

If SRM is used to cool the planet, abruptly stopping it could trigger dangerous and rapid warming.

Would SRM deployment impact only the region(s) where deployment occurs?

No, SRM deployment would have global impacts that are not limited to the deployment region(s).

Do scientists and the public support SRM?

SRM is a polarizing issue. Some support regulated research to better understand its potential benefits and risks. Others argue the unknowns make it too dangerous to pursue.

Are there clear laws governing how SRM can be used?

Both in the United States and globally, comprehensive governance for SRM is lacking. Important gaps remain in defining SRM research versus SRM deployment, ensuring transparency in funding and monitoring, and incorporating the perspectives of affected communities, particularly Indigenous groups, into governance processes.



For more detailed information, please see the Solar Radiation Modification Primer available at www.amacad.org/news/governing-solar-radiation-management.