What is stratospheric aerosol injection and why do we need to govern it?

Climate change is already here. The world is not reducing and removing emissions fast enough to avoid dangerous global warming. Scientists are exploring new ideas to cool the planet. One is called Stratospheric Aerosol Injection (SAI). The idea is to spray particles in the stratosphere, which would reflect sunlight and reduce global temperatures. It could be relatively cheap to deploy, and quick acting.

But it also brings big risks. And there are no effective global systems in place to govern it. We have no time to waste. The window may be closing to create effective governance that looks at all tools potentially available.

It could have unequal effects. One place could get more rain, another could get less.

Depending on the materials it uses, it could damage the ozone layer. This can cause health and environmental problems.

Countries might disagree on its use, and some might act alone, creating geopolitical and security tensions.

Stopping it suddenly could cause rapid temperature rise that would be disruptive to human society and be dangerous for many species.

These and other risks must be measured against the growing dangers of a rapidly warming planet.

How would we decide whether to use SAI, or not?

Who would decide, when, on what, and in which fora?

How would we implement decisions on SAI?

Some people say this conversation could undermine other action on climate. Should we even discuss it?

But research is already happening, the conversation is already being shaped.

We need to learn more and create governance before events overtake us.