# British scientists to explore geo-engineering methods to cool Earth and combat climate change



British scientists are poised to initiate a government-funded geo-engineering project that aims to explore methods of blocking sunlight to temporarily cool the Earth and combat global warming. The scheme, backed by a £50 million funding commitment from the Advanced Research and Invention Agency (ARIA), could receive official approval within weeks.

The proposed project involves experimenting with various techniques to reduce the amount of sunlight reaching the Earth's surface. These methods include releasing clouds of reflective particles into the atmosphere, spraying seawater to brighten clouds, and thinning natural cirrus clouds that contribute to heat retention by acting as thermal blankets. By reflecting more sunlight away from the planet, the scientists hope to achieve a cooling effect on the surface temperatures.

While geo-engineering is considered by some to be a relatively low-cost approach to addressing climate change, the initiative has attracted cautionary perspectives. Critics warn that manipulating atmospheric conditions could disrupt weather patterns, potentially shifting rainfall away from crucial agricultural regions. Concerns also exist that reliance on such technological fixes might undermine efforts to reduce fossil fuel consumption — the primary driver of climate change.

Professor Mark Symes, ARIA’s programme director leading the geo-engineering efforts, emphasised the urgency of exploring alternatives given the risk of crossing climate tipping points. Speaking about the initiative, he said: “Decarbonisation is vital, but our current progress puts us at risk of triggering a large number of temperature-induced climate tipping points.” He highlighted examples such as the melting of Arctic winter sea ice, degradation of the Amazon rainforest, and the collapse of major ice sheets leading to sea-level rise as critical concerns outlined in an ARIA document released last year.

Professor Symes acknowledged that stopping fossil fuel emissions remains the ultimate solution to climate change but noted that the pace of decarbonisation may not be sufficient to prevent these environmental thresholds from being reached. “This programme will explore critical unanswered questions as to how (or whether) we might cool the Earth safely and responsibly on the timescales required to avoid climate catastrophe,” he stated. The intention is that geo-engineering could act as a temporary measure to “buy time to decarbonise.”

Concerns about the environmental impact of such projects have been addressed by Professor Symes, who assured that no toxic substances would be used and that a thorough environmental impact assessment would be conducted before any outdoor experiments commence. Additionally, he confirmed that local communities would be consulted as part of the process.

The funding allocated to ARIA for these endeavours is part of a larger £800 million budget designated for innovative research over the next four years. More comprehensive details about the geo-engineering projects are expected to be released in the coming weeks as plans advance towards implementation.

Source: [Noah Wire Services](https://www.noahwire.com)

## Bibliography

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