

Report: New technology needed to remove greenhouse gases at scale and halt global warming impacts

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The impacts of climate change are being felt around the world. Limiting global warming requires not just dramatically reducing future emissions

but removing greenhouse gases from the atmosphere already released.

Today, the Australian Academy of Science has published a new report that explores the scientific capability, research and collaboration needed to support new breakthroughs in greenhouse gas removal.

President of the Academy, Professor Chennupati Jagadish, stated, "We are pleased to have been able to bring together a broad range of experts to discuss novel greenhouse gas removal approaches for Australia.

"This is an evolving topic, with policy frameworks for greenhouse gas removal under development both globally and in Australia.

"Australia can be proactive to create an environment that supports fundamental science and research and development for greenhouse gas removal. We can seize this opportunity as part of our national strategies and international obligations to respond to climate change."

The report examines emerging technologies, including [direct air capture](#), a technology that mimics trees in the way it can extract CO₂ directly from the atmosphere.

Roundtable participant, Professor Deanna D'Alessandro from the University of Sydney, said the scale of the problem we're facing with climate change means that we can't discount any approaches, and that everything needs to be on the table.

"This is going to take a mammoth effort across the world, including a portfolio of approaches, in order to get us to this point where we can indeed stabilize our climate and avoid a climate catastrophe," Professor D'Alessandro said.

Roundtable participant Professor Mark Howden, from the Australian

National University, highlighted the big gap between doing things in a lab and doing them at a real-world scale significant enough to make a difference to [climate change](#).

"That jump brings a whole series of uncertainties, risks and costs but also massive opportunities," Professor Howden said.

"If done correctly, the portfolio of greenhouse gas removal approaches outlined in this report will both create new industries and reshape existing ones."

More information: Report: [Greenhouse gas removal in Australia: A report on the novel negative emissions approaches for Australia roundtable](#)

Provided by Australian Academy of Science

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