



Large-scale wind power plant in China (Credit: Wenzhu Hou, distributed via [imageo.egu.eu](http://imageo.egu.eu))

## Remove carbon dioxide from the air or risk young people's future

Greenhouse gases, including carbon dioxide, trap energy from the Sun in the Earth's atmosphere. Human activities including farming, transport and industry release a large amount of these gases to the air. There is so much in the atmosphere now, that the Earth is heating up faster than at any time in the planet's recent history. This global warming will have unpleasant consequences, such as more frequent and severe heat waves or droughts, as well as a rise in sea level, which could affect millions of people living in coastal areas.

We can limit these effects by reducing the amount of greenhouse gases we release to the atmosphere: by using energy more efficiently and from renewable sources, improving air conditioners or eating less meat, for example. But a new study published in *Earth System Dynamics* says this will not be enough. According to a team of scientists led by James Hansen, a professor at the Columbia University Earth Institute in the US, formerly at NASA, we also need to remove some of the carbon dioxide already in the atmosphere to limit warming to a level that would safeguard children's futures.

Hansen says that if we start to reduce how much we emit right now, we only need to remove a small amount of carbon dioxide from the atmosphere to ensure warming does not get out of hand. Simple and relatively cheap measures, such as planting more trees, could do the trick. But if we continue to release greenhouse gases the way we have been doing, we would need to develop new technology to suck up huge amounts of carbon dioxide from the atmosphere to avoid global warming's most dangerous consequences.

"It is apparent that governments are leaving this problem on the shoulders of young people. This will not be easy or inexpensive," says James. Hopefully this study will encourage governments to take action against global warming.

## Discuss with your teacher or parents

What is sea-level rise and why would it increase in a warmer world?

How can humans limit the amount of greenhouse gases going into the atmosphere?

Why does planting trees help remove carbon dioxide from the atmosphere? What other measures can we take to extract greenhouse gases from the atmosphere?

Did you know that there is a group of children in the US who are taking their government to court for failing to protect them against global warming? Find out more at: [egu.eu/2Z0E2C](http://egu.eu/2Z0E2C).

*This is a kids' version of the European Geosciences Union (EGU) press release '[Removing CO<sub>2</sub> from the air required to safeguard children's future](#)'. It was written by Bárbara Ferreira (EGU Media and Communications Manager), reviewed for scientific content by John Connolly (DCU School of History and Geography) and Aimée Slangen (Researcher, NIOZ, Netherlands), and for educational content by Rachel Hay (Geography Teacher, George Heriot's School, Edinburgh, UK). For more information check: <http://www.egu.eu/education/planet-press/>.*

