
METHODS FOR THE CLIMATE CRISIS

GAIA NEWSLETTER

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WHAT IS CARBON BALANCING?

Individuals or organizations can purchase credits in order to reduce their carbon footprint. This person or organization becomes carbon neutral when they receive a carbon offset credit equivalent to the carbon footprint they have created. Emissions that cannot be directly reduced can be offset.

Offsetting your carbon footprint is just one way to slow global warming. In this process, emissions still take place, but they are balanced by another entity.

In order to avoid the worst consequences of climate change, we need to achieve net zero by 2050 by equalizing the amount of carbon dioxide we produce and dispose of. In order to achieve this, it is thought that we should benefit from carbon capture and storage technologies that will enable us to get faster results, as well as natural solutions such as tree planting or different agricultural practices.



COULD CARBON CAPTURE TECHNOLOGIES BE A SOLUTION?

The rising trend of the world is carbon removal technologies. According to the International Energy Agency, the most common method is to capture carbon dioxide from industries that use fossil fuels. It may also be a suitable and efficient technology for textile companies that cannot be freed from fossil fuels at the moment.

How is the carbon capture and storage process progressing?

First, carbon dioxide from the power plants is captured in the greenhouse gas absorption tower. Here, CO₂ is absorbed together with the solvent and other gases are released. The solvent and CO₂ are separated by heat, and the solvent is recycled and reused. The treated CO₂ is stored underground in the rock. In this way, the gases formed are caught before they mix with the atmosphere.

Of course, stopping the use of fossil fuels is the greatest method to keep global warming to 1.5 degrees and cut emissions, but given the urgency of the problem, we believe we need these solutions.



Unlike carbon capture facilities, which are directly connected to the facilities, technologies that collect carbon in the air are also currently being developed. This technology, called direct air capture (DAC), is powered by renewable sources. As it is a very new and developing technology, it has not been determined exactly how useful it will be on a large scale.

It is argued that even if energy systems are renewed in order to achieve net zero in 2050 and emissions in the future decrease, these technologies will need to be used to capture CO₂ left in the atmosphere from the past. Many technology companies have started to invest in accelerating the development of these technologies, and the support is expected to increase exponentially in the coming years.

Companies like On, Pangaia, Zara, and Lululemon are experimenting with making materials and paints from captured carbon emissions. In June, Zara launched a capsule collection made with a special type of polyester made from recycled carbon emissions. On, a Swiss shoe brand, uses technologies that absorb carbon emissions and create foam raw materials for use in their shoes.

Material development from captured emissions is still under development in laboratories and existing products contain small amounts of recycled carbon. These issues might be resolved thanks to the Inflation Reduction Act, which was created to encourage US investment in carbon capture systems.

