

Carbon sink



Skove er et naturligt kulstofdræn.

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Any process or material that removes [carbon dioxide](#) from the [atmosphere](#).

The ocean is the largest and most important carbon sink. Two different processes make the ocean such an effective carbon sink. There is a non-biological process by which CO_2 is dissolved in the ocean and transported to great depths. Then there is a biological process by which carbon is transported in organic material to the ocean floor.

Land-growing plants are another major carbon sink. During [photosynthesis](#) plants remove carbon dioxide from the atmosphere and build it into organic material. Because plants reduce the amount of CO_2 in the atmosphere, the planting of forests is one way to [offset carbon emissions](#) and in that way help to

[mitigate global warming](#).

Soil is also an important carbon sink. It contains more carbon than all the terrestrial vegetation and the atmosphere combined. When soils are intensively farmed they lose some of their ability to hold onto carbon.

These processes are all natural and important parts of the [carbon cycle](#). Because increasing use of [fossil fuels](#) since the [industrialization](#) has led to a significant increase of CO₂ in the atmosphere, there may be a need to supplement the natural carbon sinks with human-made ones.

There are several theories on how artificial carbon sinks could be made and some have also been successfully tested. However, their importance is nowhere near the importance of the natural carbon sinks. One kind of proposed artificial sink is where carbon is captured from a point source, for example, a power plant, and then built into permanent structures such as houses. In this way the carbon is taken out of the carbon cycle and is not released to the atmosphere.

One of the aspects of the [Kyoto protocol](#) is a possibility for nations to plant more trees and other vegetation to offset fossil fuel use. Carbon sinks are thus officially seen as relevant to combating global warming.

Sådan henviser du til opslaget

Klimaleksikon: "Carbon sink". climate-encyclopedia.com/carbon-sink, hentet 15. oktober 2026.

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