

# WHAT IS CARBON?

Carbon is an element that is necessary for all life on earth. It is found in plants, soils, rocks, air, animals and us. Carbon moves through all living things and their environment in a cycle, where it is stored in different places — including in the land — until it is released and continues the cycle.

## Changes to the land

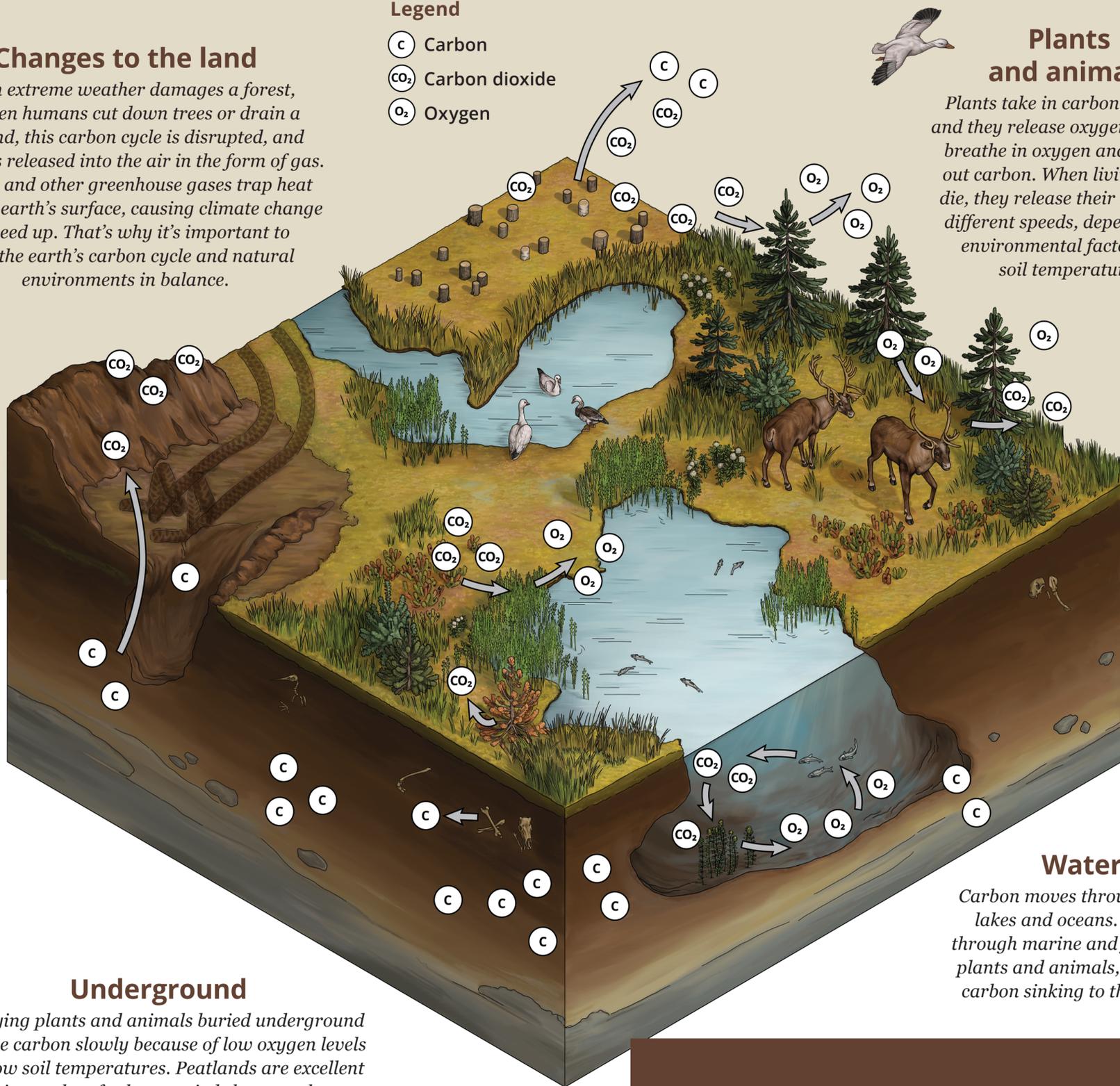
When extreme weather damages a forest, or when humans cut down trees or drain a wetland, this carbon cycle is disrupted, and carbon is released into the air in the form of gas. Carbon and other greenhouse gases trap heat near the earth's surface, causing climate change to speed up. That's why it's important to keep the earth's carbon cycle and natural environments in balance.

### Legend

- C Carbon
- CO<sub>2</sub> Carbon dioxide
- O<sub>2</sub> Oxygen

## Plants and animals

Plants take in carbon to grow, and they release oxygen. Animals breathe in oxygen and breathe out carbon. When living things die, they release their carbon at different speeds, depending on environmental factors like soil temperature.



## Underground

Decaying plants and animals buried underground release carbon slowly because of low oxygen levels and low soil temperatures. Peatlands are excellent at storing carbon for long periods because they are consistently wet, and the lack of oxygen drastically slows down the release of carbon as plants and animals break down. Peatlands store more carbon than all other terrestrial vegetation types in the world combined. Coal, oil, natural gas and limestone also contain carbon, which is released when these materials are mined or extracted.

## Water

Carbon moves through rivers, lakes and oceans. It cycles through marine and freshwater plants and animals, with some carbon sinking to the bottom.

## HOW CAN WE HELP?

- Manage lands to prevent severe wildfires.
- Protect areas that have a lot of wildlife and store lots of carbon.
- Switch to sustainable harvesting in forests used for timber products.
- Measure carbon in places where there is not a lot of data available or where there are concerns about climate change and its impacts. More data on carbon helps to conserve important habitat for wildlife.



### CONTACT

If you have any questions or would like to discuss carbon in your territory, reach out to our team:  
 Emily Giles and Clare Wark  
[science@wwfcanada.org](mailto:science@wwfcanada.org)