WHERE'S ALL THE CARBON?

Carbon moves between three "pools": the atmosphere, oceans and land.

THE ATMOSPHERE

About 50% of the CO₂ released over history by human activity is now in the atmosphere. Increasing amounts of atmospheric CO₂ and other gases are contributing to a stronger "greenhouse effect" and causing Earth to become warmer over time.

FORESSTS AND SOILS

About a quarter of the CO₂ released by humans is being absorbed on land, largely by forests, plants and soils. Carbon stored on land has less harmful effects than in the atmosphere and oceans.

THE OCEANS

Roughly a quarter of the CO₂ released by humans is being absorbed into the oceans, which has made the oceans more acidic.

Large amounts of carbon are locked deep underground, in limestone and fossil fuel deposits such as coal, oil and natural gas.

FORESTS ARE WORKING THEIR TRUNKS OFF

Carbon dioxide has been accumulating in the atmosphere since the beginning of the Industrial Revolution, when humans first started burning fossil fuels. In that time, the concentration of CO₂ has increased from about 280 parts per million to over 410 parts per million.

Some carbon is released to the surface through volcanic activity. But at least 100 times more than that is released through fossil-fuel burning and cement production.

Volcanoes

HUMAN ACTIVITY results in the emission of nearly 36 billion metric tons of CO₂ every year.