

Science and Digital Briefs

By Shopper Editor Dave Bunting



Mar. 30, 2022



We can help Ukrainians with charitable donations:

Food, medical, etc. help:

Ukraine Red Cross:

shpr.fyi/ukraineredcross

Samaritans Purse:

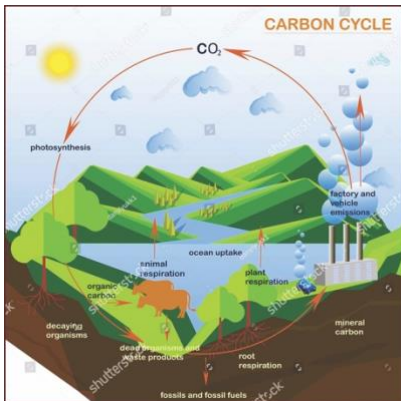
shpr.fyi/samaritanpurse

Mercy Corps:

mercycorps.org/donate

Military help:

war.ukraine.ua/donate/



Carbon Absorption:

“The news is not quite as bad!”

Researchers have constructed a new time series for global carbon emissions from deforestation. The series is the missing link in terms of the improved understanding of the global carbon cycle, and it implies that the natural uptake of CO₂ by the land and oceans is more efficient than previously assumed.

The study shows that carbon emissions from deforestation between the 1960s and 1980s were lower than previous studies had assumed. By combining the time series with other datasets, the scientists show that the uptake of CO₂ by nature is so far influenced less by [climate](#) change than was thought in the past.

Since the 1970s, we have known that about half of our [carbon emissions](#) from the burning of fossil fuels and deforestation stay in the atmosphere. The other half are reabsorbed by oceans and land. Extensive research has been conducted into whether this ratio changes in the long term, possibly because climate change impairs the capacity of vegetation and oceans to absorb CO₂. This could lead to an acceleration of climate change because more CO₂ is left in the atmosphere.

The new time series shows that compared to earlier studies, emissions from [deforestation](#) were lower from the 1960s to 1980s. Over the entire sixty-year time series, this results in a negative trend: A sign that CO₂ uptake by nature has kept pace with growing emissions from fossil fuels and may even have become more efficient over time.

According to Guido van der Werf, a professor at the VU University of Amsterdam specializing in the global carbon cycle who set up the study, "What we can mainly prove is that the worst nightmare scenarios of an impaired [carbon sink](#) have not yet materialized and that the news is not quite as bad.

Info: rb.gy/vzhwda

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Does the Microsoft Outlook Exchange Hack Affect Me?

One week ago, [Microsoft](#) disclosed that Chinese hackers were gaining access to organizations' email accounts through vulnerabilities in its Exchange Server email software and issued security patches.

The hack will probably stand out as **one of the top cybersecurity events of the year** because Exchange is still widely used around the world. It could lead companies to spend more on security software to prevent future hacks, and to move to cloud-based email instead of running their own email servers in-house.

Seventy percent of world people use Gmail while only ten percent use Outlook. Gmail users are not affected.

On Monday, internet security company Netcraft [said](#) it had run an analysis over the weekend and observed over 99,000 servers online running unpatched Outlook Web Access software.

The hack affects emails to and from these thousands of largest companies that use Microsoft Exchange Server so it could affect personal users who have communicated with those companies via Outlook.

Are people exploiting the vulnerabilities?

Yes. Microsoft [said](#) the main group exploiting vulnerabilities is a nation-state group based in China that it calls Hafnium.

Do the flaws affect cloud services like Office 365?

No. The four vulnerabilities Microsoft disclosed do not affect Exchange Online, Microsoft's cloud-based email and calendar service that is included in commercial Office 365 and Microsoft 365 subscription bundles.

Info: rb.gy/ry5syp

Check out this week's Bible Readings on page 6 which includes the imprisoned Paul's teaching letter to the Christians at Philippi in about AD 62: *"This is one thing I do: Forgetting what lies behind and straining forward to what lies ahead, I press on toward the goal for the prize of the heavenly call of God in Christ Jesus."* Philippians 3: 13b-14 NIV

Dave Bunting, Mar. 28, 2022

References in links below items.

See these columns on my blog daverant.com