



News

Study suggests tropical forests can regenerate naturally — if we let them

Tropical rainforests are more resilient than previously thought, a new study shows, with a high capacity for natural regeneration in areas that are only slightly degraded adjacent to patches of native vegetation. In the space of less than 20 years, these patches of secondary forest can regain important characteristics and functions of the original forest, such as soil fertility and a significant amount of carbon stock. But enabling this low-cost regeneration and supporting restoration and conservation projects requires three things: understanding each area's different characteristics; halting the deforestation; and keeping nearby healthy primary forests standing. These were the conclusions of the unprecedented study carried out by 2ndFOR, a collaborative research network focusing on secondary forests, which involves more than 100 scientists in 18 countries. The study was published at the end of 2021 in the journal [.....Read more...](#)

Date: February 16, 2022

Source: Mongabay

City trees and soil are sucking more carbon out of the atmosphere than previously thought

Forests actually store more carbon dioxide than they release, which is great news for us: about 30 percent of carbon emissions from burning fossil fuels are taken in by forests, an effect called the terrestrial carbon sink. "That's CO₂ that's not in the atmosphere," says Boston University biogeochemist and ecologist Lucy Hutyra. "We're not feeling the full effects of climate change because of the terrestrial climate sink. These forests are doing an incredible service to our planet." For more than a decade, Hutyra has been investigating what happens to the planet's "lungs" when large forests are cut down into smaller patches, a process researchers call forest fragmentation. "We think about forests as big landscapes, but really they are chopped up into all these little segments because of the human world," says Hutyra, a BU College of Arts & Sciences professor of Earth and environment. Forests get cut into smaller parcels, as chunks are taken down to make space for roads, buildings, agriculture, and solar farms -- one of the biggest drivers of forest loss in Massachusetts. These alterations to forests create more areas called forest edges -- literally, the trees at the outermost edge of a forest. It has long been assumed that these forest edges release and store carbon at similar rates as forest interiors, but Hutyra and researchers in her lab at BU have discovered this isn't true. [.....Read more...](#)

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Source: Science Daily

Number of Wildfires to Rise by 50% By 2100 and Governments Are Not Prepared, Experts Warn

Climate change and land-use change are projected to make wildfires more frequent and intense, with a global increase of extreme fires of up to 14 per cent by 2030, 30 per cent by the end of 2050 and 50 per cent by the end of the century, according to a new report by the UN Environment Programme (UNEP) and GRID-Arendal. The paper calls for a radical change in government spending on wildfires, shifting their investments from reaction and response to prevention and preparedness. The report, Spreading like Wildfire: The Rising Threat of Extraordinary Landscape Fires, finds an elevated risk even for the Arctic and other regions previously unaffected by wildfires. The report is released before the resumed 5th session of the UN Environment Assembly (UNEA-5.2) convenes in Nairobi, between 28 February and 2 March, 2022. The publication calls on governments to adopt a new 'Fire Ready Formula', with two-thirds of spending devoted to planning, prevention, preparedness, and recovery, with one third left for response. Currently, direct responses to wildfires typically receive over half of related expenditures, while planning receives less than one per cent. [.....Read more...](#)

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Source: ENN Environmental News Network

Deforestation emissions far higher than previously thought, study finds

Carbon emissions from tropical deforestation this century are far higher than previously thought, doubling in just two decades and continuing to accelerate, according to a study. The world's forests form an enormous carbon store, holding an estimated 861 gigatons of carbon – equivalent to nearly a century's worth of annual fossil fuel emissions at the current rate. When trees are cut down, they release the carbon they store into the atmosphere. Since 2000, the world has lost about 10% of its tree cover, becoming a major driver of global heating. Yet, despite being the second largest human source of greenhouse gases after fossil fuels, the carbon accounting behind emissions from land still contains significant uncertainties, often relying on limited data that poses difficulties for researchers tracking progress towards meeting the goals of the Paris agreement. A study published on Monday in Nature Sustainability shows that carbon loss from tropical deforestation in the last two decades has doubled and continues to rise, driven largely by the expansion of agricultural frontiers. The findings contrast with previous assessments, such as the Global Carbon Budget 2021, which had suggested a slight decline in carbon loss from deforestation. [.....Read more...](#)

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