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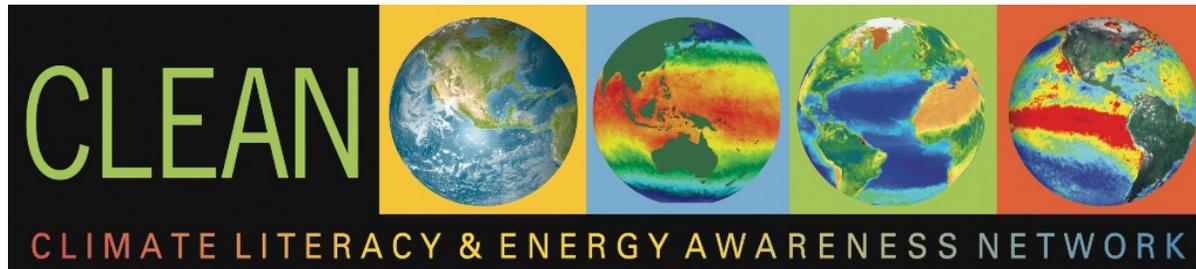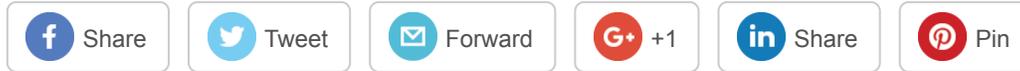
Amazon Greenhouse Gases | **Carbon Sequestration** | **Amazon Forest Fires**

CLEAN STEM Flash

A Timely Climate and Energy E-Learning Series to Use and Share

September 5, 2019

Topic: Amazon Basin Deforestation

Every year, the Amazon rainforest suffers from human-induced forest fires as a result of agriculture burning and deforestation. From January 2019 to August 2019, the number of fires reached 80,000 across the Amazon rainforest in Brazil (as reported by Brazil's National Institute for Space Research). This causes a loss of carbon storage and increases carbon emissions.

CLEAN Resource Feature
Video: Regulating Greenhouse Gases

The destruction of the Amazon rainforest by deforestation (a result of building dams and agricultural fields) has major impacts on global climate change. Scientists continue to research long term changes in carbon dioxide and methane levels between the atmosphere and the Amazon rainforest due to the forest being such a vast carbon sink.

Video length: 5:25 minutes
Audience: Middle School, High School

Browse CLEAN for more videos related to the Amazon**.**

teaches students about the global climate change impacts of destroying the Amazon rainforest. Students will learn about some of the various processes that cause deforestation in the Amazon.

CLEAN Resource Feature

Activity: Carbon Sequestration in Campus Trees

Forests play an important role in the global carbon cycle; trees absorb carbon dioxide from the atmosphere and store (sequester) the carbon in their leaves, wood, and other components. The loss of the Amazon rainforest (a substantial carbon sink) could have significant impacts on both weather and climate, regionally and globally. For this activity, students use a spreadsheet and calculate the net carbon sequestration in a group of trees.

Audience: High School, College

Take a look at some more CLEAN resources focused on Carbon Sequestration.

This activity helps students understand the importance of carbon sequestration by using the allometric approach to calculate the net carbon sequestration on a set of campus trees. Using forestry research data, students determine the species of trees and trunk diameter. You can tie this activity into a lesson on the Amazon Basin by drawing importance to the Amazon rainforest as a carbon sink.

In the News: What you need to know about the Amazon rainforest fires

The 2.2 million square miles of Amazon rainforest is reaching a tipping point that will cause parts of the rainforest to transform into a much drier ecosystem. Check out this article to learn more about the Amazon rainforest system and the 2019 fires.

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