

Worried About Climate Change? Soils Have Our Backs



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One can't go more than a day without hearing something about climate change and global warming.

Luckily, soils have our backs.

"Soil is a precious resource that has significant interactions with Earth's climate system," explains Eric Brevik, a professor at [Dickinson State University](#) in North Dakota and an [International Year of Soils](#) monthly leader for the Soil Science Society of America.

How does soil fight climate change? Recent research shows carbon is stored in healthy soils. "The organic matter in soil holds large amounts of carbon, which is also an important part of green house gases, including carbon dioxide and methane," Brevik says. "Replanting forests, protecting and restoring wetlands and good agricultural practices can help increase the amount of carbon stored in our soils—and keep it out of our atmosphere."

But soil can't do its job if we keep disturbing it, Brevik says. "Deforestation, draining of wetlands and poor agricultural practices can release large amounts of carbon into the atmosphere where it can contribute to climate change."

One of the soil disturbances the industry tries to fight is desertification. This is the rapid loss of topsoil and plant life on land in arid (dry) and semi-arid regions of the world. One-third of Earth's land area in more than 100 countries (including the U.S.) is at risk of desertification. The historic Dust Bowl of the 1920s and 1930s was a result of desertification caused by excessive tillage of soils in Texas, Oklahoma, Kansas and Colorado.

The good news is desertification can be prevented by following good property management practices, Brevik points out. Landowners should make sure soil has

adequate vegetation covering it to prevent accelerated erosion by wind and rain. "We need to prevent desertification," he says, "so we can prevent can prevent disasters like the Dust Bowl from recurring."