



Soil Carbon Sequestration Update

July 2018

Policy:

Australia's Coalition Government is investing \$450 million in a [Regional Land Partnership](#) program and \$134 million in Smart Farms program to improve soil health

The Government of Andhra Pradesh has launched [a scale-out plan](#) to transition 6 million farms/farmers to 100% chemical-free agriculture by 2024. The programme is a contribution towards the UN Sustainable Development Goals, focusing on 'No Poverty', 'Clean Water and Sanitation', 'Responsible Consumption and Production', and 'Life on Land'. It is led by Rythu Sadhikara Samstha (RySS) – a not-for-profit established by the Government to implement the ZBNF programme - and supported by the Sustainable India Finance Facility (SIFF) – an innovative partnership between UN Environment, BNP Paribas, and the World Agroforestry Centre.

The U.S. Climate Alliance in partnership with the Working Lands Initiative convened a consortium of large land conservation, forestry, and agricultural organizations at a "Learning Lab" in July. Over 50 technical experts across industry, academia, and government worked together to draft guiding principles that state governments can use to develop strategies, policies, and funding initiatives to draw down carbon from the atmosphere and sequester it in the soils across farms, rangelands, forests, and wetlands. [Read More](#)

[A new bill](#) will be brought before the UK parliament this year mandating, for the first time, measures and targets to preserve and improve the health of the UK's soils.

The Ministry of Primary Industries in New Zealand is ramping up its work to promote healthy soils. [See here](#)

Zimbabwe has passed [3 recent policies](#) related to climate and agriculture, focused particularly on coping with less rainfall in the region.

Luca Montanarella with the European Commission shared this [new organic production and labelling of organic products regulation](#) in the EU: [The Regulation \(EU\) 2018/848](#) of the European Parliament was passed on May 30, 2018

Colorado U.S. Senator Michael Bennet recently introduced [the Conservation for Very Erodible Row Cropland Act of 2018 \(COVER Act\)](#) to promote soil health practices in conservation programs. The bill would incentivize and develop farm practices that

improve soil health, enhance farm resilience, and increase carbon storage, while boosting farm incomes.

Practice:

[Bringing Farmers Back to Nature](#): 70 countries gathered in Rome recently to discuss how agroecology can create a healthy more sustainable food system. Countries around the globe are already investing millions to make this change happen.

Soil Health Institute released a [catalog of policies](#) and a [catalog on education](#) that advance soil health as part of a [\\$9.4 million grant](#) from the FFAR.

Silvopasture is gaining a lot of attention as a powerful way to integrate trees, agriculture and soil carbon sequestration. Chelsea Green Publishing just released [a new book](#): A Guide to Managing Grazing Animals, Forage Crops, and Trees in a Temperate Farm Ecosystem.

There are many farming networks in the US and globally. Farmer peer to peer learning and field schools are often at the heart of changing practices. The Land Stewardship Project is working in conservative areas to support farmer networks and the [Soil Builders program](#).

[Holistic Management International](#) provides training programs and support to farmers and ranchers working to build healthy soils. Check out their events and training programs.

Danone is promoting regenerative agriculture through incentives and investment in farmers. [Learn more here](#).

Science:

One of the principles supporting healthy soils and SOC storage is diversification of our agricultural systems. [A recent paper](#) looked at plant diversity on the land. Ecosystem management that maintains high levels of plant diversity can enhance SOC storage and other ecosystem services that depend on plant diversity.

This is a [grass-fed beef study](#) that demonstrates soil carbon sequestration from grazing that completely offsets the greenhouse gas cost of beef (in the finishing stage). Adaptive multi-paddock grazing can sequester large amounts of soil C.

[A study](#) has found that increased drought and wildfire risk make grasslands and rangelands a more reliable carbon sink than trees in 21st century California. As such, the study indicates they should be given opportunities in the state's cap-and-trade market, which is designed to reduce California's greenhouse gas emissions to 40 percent below 1990 levels by 2030.

Rice is cultivated as a major crop in most Asian countries and its production is expected to increase to meet the demands of a growing population. [This study](#) looked at rice production and how to both reduce emissions and capture carbon in Bangladesh rice paddies. It concluded that under integrated management, it is possible to increase SOC stocks on average by 1.7% per year in rice paddies in Bangladesh, which is nearly 4 times the rate of change targeted by the “4 per mille” initiative arising from the Paris Climate Agreement.

Klaus Lorenz and Rattan Lal of Ohio State have published a book on soil carbon sequestration and agricultural systems. They attended the Paris carbon sequestration conference in May 2017. [“Carbon sequestration in Agricultural Ecosystems”](#)

Whendee Silver of University California Berkeley wrote an interesting blog about whether soil carbon sequestration can help cool the planet. This was written for a general rather than scientific audience [Can Soil Carbon Sequestration Affect Global Temperatures?](#)

The arid west of the United States is changing due to climate change. [The Agricultural Climate Network](#) helps monitor and conduct research to share findings on how to help farmers adapt.

Adaptation and Agriculture:

The Institute for Trade & Agriculture Policy released [a new report](#) about state policies and plans in the United States to make agriculture more resilient in the face of climate impacts.

Funding:

The Soil Carbon Coalition has a new prize for carbon farmers. The [Soil Carbon Challenge](#) is an international (and localized) prize competition to see how fast land managers can turn atmospheric carbon into soil organic matter. This coalition seeks to

“to advance the practice, and spread awareness of the opportunity, of turning atmospheric carbon into living landscapes and soil carbon.”

Media Coverage:

[This article](#) by Marcia Delonge of the Union of Concerned Scientists speaks to the link between regenerative agriculture and farm resilience.

Politico says [regenerative agriculture is the next big thing](#).

Workshops and Conferences:

No Till on the Plains is attracting a huge audience to its summer and winter conferences. [Their next gathering](#) to celebrate and learn about farm management practices to build healthy soils will be in January.

[Regeneration Midwest](#) held a lively conference in Chicago to begin forming a 12 state coalition promoting regenerative agriculture.

The FAO recently held [workshops in Latin American](#) with a focus on development and strengthening of soil statistics and indicators for decision making and planning.

Healthy Soils Institute is holding [a national conference on soils](#) in November, 2018

Roots of Resilience will hold [a grazing conference](#) in March, 2019

The [5th Annual Conference on Plant and Soil Science](#) will be held in London in February, 2019.

Internships:

The RockGroup is offering [12 internships](#) for students interested in regenerative agriculture.

[The Regeneration Academy](#) offers internships in regenerative agriculture on a farm in Spain.

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