



U.S. SUSTAINABLE AGRICULTURE: LAWS, POLICIES, AND PROGRAMS

CLIMATE CHANGE

AN OVERVIEW

The U.S. Sustainability Alliance has created a series of essential guides to the laws, policies, and programs that govern and guide U.S. sustainable agriculture.

These reports outline the key dates and events, regulatory developments, and government funding and assistance programs in four key areas: soil health, water, climate change, and biodiversity. This report focuses on climate change, while the full series and a consolidated report covering all four areas are available on the [USSA website](#).

American agricultural producers, including farmers, ranchers, fishers, and forest managers, are stewards of half the landmass in the United States and many of its waterways. These growers provide the nation and much of the world with an abundant supply of food, fiber, paper, and many other products – and provide employment to nearly 20 million people. It's a reality that's only possible through the sustainable and long-term management of natural resources.

Despite common misconceptions of U.S. agriculture as being uniformly large, corporate, and environmentally damaging - supported by a government that's behind the curve on sustainability - the U.S. government and its farmers, fishermen, and forest managers have led conservation and natural resource protection for well over a century and have done so mostly on family farms.

In fact, the first federal agency dedicated to natural resource conservation dates back to 1871 and the creation of the U.S. Commission of Fish and Fisheries - the predecessor to today's U.S. Fish and Wildlife Service. Its goal was to study declining food fish populations in the United States and recommend ways to reverse the trend.

Today, the U.S. Department of Agriculture (USDA), through a number of agencies and initiatives, provides a range of incentives, education, research, technical assistance, and regulations to support growers in state-of-the-art conservation and pollution management strategies.

In fact, the nation's agricultural growers take part in the U.S. federal government's largest conservation programs - worth billions of dollars each year and protecting millions of acres.

As scientific understanding has evolved and society's environmental awareness and standard of living grow, U.S. federal policies have expanded to include water pollution controls, species and habitat protection, climate-smart agriculture, and biodiversity incentives, cementing the United States as a leader in natural resource protection and sustaining the nation well into the future.

CLIMATE CHANGE AND U.S. SUSTAINABILITY POLICY

Climate change is one of the gravest threats to U.S. security, sustainability, and our food system.

Already, increasing droughts, extreme weather, and changing seasons are impacting growers' ability to produce food and other products.

The U.S. has long debated a comprehensive national policy on climate change and, in the meantime, the country has moved ahead with renewable energy tax credits, fuel emission and efficiency standards, research and development, and massive investments in climate-smart agriculture under the landmark [Inflation Reduction Act](#) of 2022. What's more, increasingly, U.S. conservation policy is incentivizing farmers' important role in reducing emissions and storing carbon in the soil, forests, and waterways.

Under the Natural Resources Conservation Service (NRCS), the U.S. Department of Agriculture (USDA) is focusing on "climate-smart" mitigation strategies that include soil and forestry carbon sequestration, managing nitrogen to reduce nitrous oxide, reducing methane emissions from manure, building carbon stocks in our forests and wildlife areas, and improving the energy efficiency of agricultural infrastructure, among other strategies.



KEY EVENTS

1992

The U.S. Senate ratifies the United Nations Framework Convention on Climate Change (UNFCCC), acknowledging the importance of addressing climate change and establishing a framework for international climate negotiations.

Renewable energy production tax credits are included in the 1992 Energy Policy Act, aiding in the rapid expansion of the wind energy industry. Solar tax credits were added in 2005.

2007

The U.S. Congress mandates emissions reporting from large sources for the first time, as part of the Consolidated Appropriations Act, establishing the Greenhouse Gas Reporting Program (GHGRP) database.

2016

The U. S. joins the landmark Paris Agreement, an international accord aimed at limiting global warming to well below two degrees Celsius above pre-industrial levels.

2020

Congress passes an omnibus package that includes research and development for clean energy technologies, clean energy tax incentives, and the phasing out of hydrofluorocarbons (HFCs), a potent greenhouse gas.

2022

Congress passes the Inflation Reduction Act, the largest climate bill in U.S. history, with nearly \$20 billion in funding for NRCS's conservation programs, which address climate change.

KEY CLIMATE POLICIES AND PROGRAMS RELATED TO AGRICULTURE



THE FARM BILL

Renewed approximately every five years since 1985, the Farm Bill funds national agricultural policy and priorities, including climate mitigation strategies such as:

- The 1990 Farm Bill included the Global Climate Change Prevention Act, which first established a program within the USDA to coordinate climate-related issues.
- The 2008 Farm Bill expanded support for renewable energy, including biofuels made from agricultural products. It also promoted carbon sequestration through reforestation, afforestation, and conservation easements.
- The 2018 Farm Bill expanded the federal crop insurance program to allow greater use of cover crops, which increases carbon sequestration, as well as continuing funding for the nation's premier conservation programs, CRP, CSP, and EQIP, which include numerous climate-smart provisions.
- President Joe Biden signs the [2022 Tackling the Climate Crisis at Home and Abroad executive order](#) directing federal agencies to coordinate a government wide approach to combating the climate crisis. The U.S. Secretary of Agriculture was tasked with delivering a report with recommendations for a climate-smart agriculture and forestry (CSAF) strategy, which is in development. Likewise, the NRCS published its own [Climate Change Adaptation Plan](#) in July 2022.
- **The 2022 Inflation Reduction Act** provides unprecedented funding to support agricultural producers investing in renewable energy and energy efficiency. It makes almost \$20 million available for climate-smart agriculture through several existing conservation programs implemented by USDA's Natural Resources Conservation Service (NRCS), namely the Conservation Stewardship Program (CSP) and Agricultural Conservation Easement Program (ACEP). The Act also dedicated \$300 million to quantifying and tracking the emissions savings and sequestration benefits of the USDA's climate-smart activities.

CLIMATE-SMART COMMODITIES FUNDING AND ASSISTANCE

To help farmers, ranchers, and forest landowners mitigate the effects of a changing climate, the U.S. Department of Agriculture (USDA) offers funding to accelerate the development of climate-smart commodities - a term it uses to describe an agricultural commodity produced using practices that reduce greenhouse gas emissions or sequester carbon.



- [Partnerships for Climate-Smart Commodities](#), launched in 2022, is a USDA project-based initiative funded under the Inflation Reduction Act that aims to develop markets, pilot quantification methods, and provide technical and financial assistance for America's climate-smart commodities. The USDA is investing more than \$3.1 billion for 141 projects through this effort and all the projects require "meaningful involvement" of small and underserved producers.
- In April 2023, the USDA announced the **Partnerships for Climate-Smart Commodities Learning Network** aimed at facilitating the exchange of information and lessons learned from Partnerships for Climate-Smart Commodities projects.

CARBON MITIGATION AND SEQUESTRATION FUNDING AND ASSISTANCE

The USDA's Natural Resources Conservation Service (NRCS) offers various conservation programs aimed at promoting sustainable agricultural and forestry practices that can help sequester carbon and reduce greenhouse gas emissions, including but not limited to:



- **The Conservation Reserve Program (CRP)** provides rental payments and cost-share assistance for agricultural producers to remove environmentally sensitive land from agricultural production and to convert it to conservation practices, including practices like reforestation and wetland and grassland restoration that store carbon. CRP was updated in 2021 to include a more substantial funding boost for climate-smart practices.
- The [Environmental Quality Incentives Program \(EQIP\)](#) provides financial and one-on-one technical assistance to implement conservation practices to meet specific conservation and production goals. These can include: climate-smart conservation practices, such as cover cropping and reduced tillage, which stores carbon in the soil and reduces nitrogen oxide emissions from fertilizer usage; reforestation, which stores carbon in trees; and support for energy efficiency programs on farms, among other initiatives.
- Administered by the NRCS, the [Conservation Stewardship Program \(CSP\)](#) provides technical financial assistance in five-year contracts to farmers, ranchers, and forest landowners for conservation activities, including those that encourage carbon sequestration and emission reduction activities.
- Launched in 2021, the [Agriculture Innovation Mission for Climate \(AIM for Climate\)](#) is an initiative led by the United States and the United Arab Emirates that unites partners toward substantially increasing investments in climate-smart agriculture innovations over five years.
- The [Conservation Innovation Grants program \(CIG\)](#) provides funding to grantees to develop tools, technologies, and strategies for next-generation conservation efforts on working private lands. In 2023, the federal government put an additional \$25 million towards [CIG's On Farm Trials](#) to develop methane-reduction strategies, including by changing the diet and feed management of ruminants, as part of its climate-smart strategies.





EDUCATION, RESEARCH, AND TECHNICAL ASSISTANCE

- USDA promotes what it calls “**climate-smart**” **agricultural strategies** through content on its website, programming, and free technical assistance to agricultural producers. This includes information on soil carbon sequestration strategies, energy efficiency, nutrient management, wildlife and grassland restoration, cover cropping, reduced tillage, and more.
- In line with its [Science and Research Strategy](#) and aim to drive climate-smart solutions, USDA and other federal agencies conduct research to better quantify and understand the impacts of climate change on agriculture, fisheries, and forestry. This research informs policy decisions and provides valuable data for stakeholders in these industries.
- Established in 2014, the USDA’s [Climate Hubs](#), which operate in ten regions across the country, conduct research on regional climate risks and variability. They also provide information, tools including forecasting and data, and technical support to farmers, ranchers, and forest landowners in adapting to climate change, including drought, extreme weather, and changes in growing seasons. Building on its national success, the USDA launched an [International Climate Hub](#) in May 2023 to share research, tools, collaborative efforts, and best practices on a global scale to improve the world’s ability to adapt to climate change.
- Managed by a public-private partnership, the [COMET-Farm Tool](#) is a digital carbon and greenhouse gas accounting system that allows farmers, ranchers, and forest managers to quantify their operation’s carbon sequestration and greenhouse gas emission reduction potentials based on multiple management scenarios. Similarly, the COMET-Planner Tool allows agriculturalists to see the impact of various conservation practices implemented through the USDA’s Natural Resources Conservation Service (NRCS). A global version of this tool is included in the International Climate Hub.
- The [Coalition on Sustainable Productivity Growth for Food Security and Resource Conservation \(The SPG Coalition\)](#), launched by the USDA in 2021 at the UN Food Systems Summit, accelerates the transition to more sustainable food systems through productivity growth, including climate-smart agricultural practices. Members, which include countries, farmer and producer groups, NGOs, research institutions, and others, commit to sharing education and information on best practices, innovations, and cutting-edge technology.