



AMERICAN RESILIENCE
PROJECT

Impact Resources for *Farm Free or Die*

Education Toolkit

Discussion Questions

1. What are some of the challenges to making sequestered carbon a new commodity? How might we overcome these challenges?
2. How mindful are we as a society about where our food comes from? How mindful are you personally? How can we become better informed?
3. What does the land ownership structure have to do with food security?
4. Both the public sector (government) and private sector (businesses) are investing in regenerative agriculture. How do their approaches differ? What do they have in common?

Classroom Exercises

Mock Town Hall

Organize a mock town hall meeting to discuss how best to spend the state's funding to support regenerative agriculture. Each student will be assigned a character and should be prepared to ask questions about the proposal and articulate their position, based on that character's perspective.

Some characters may include:

- Local restaurant owner
- Commercial farmer
- Small farmer
- Teacher at a community college
- An army veteran
- An environmental activist

Modeling the Carbon Cycle

Draw a diagram of the carbon cycle. Explain the differences in soil health and productivity between farms that employ regenerative agriculture (cover crops, low-till, crop rotation, etc.) and those that do not.

Action Items

1. Write to your senators and representatives about the 2023 Farm Bill and voice your support for regenerative agriculture incentives.
2. Shop mindfully to support farms that practice regenerative agriculture.
3. Share the film and additional resources with your colleagues, students, friends and family.

Business and Workforce Toolkit

Most initiatives to fight climate change today focus on reducing fossil fuel emissions from electricity generation, transportation, and buildings. But to avoid the worst impacts of climate change we must also significantly reduce the atmospheric carbon that has already been emitted. While efforts are underway to develop new and high tech mechanisms to accomplish this, there is an immediate and economically viable pathway for atmospheric carbon removal—one that offers a compelling value proposition for farmers to revitalize their soils and get paid for doing it.

Regenerative agriculture methods such as cover cropping, crop rotation, low-till or no-till practices, and reduced reliance on fossil-fuel based inputs can mitigate climate change by drawing down atmospheric CO₂ and sequestering that carbon in the soil, while improving microbial soil health, and increasing soil fertility, crop yield and resilience. These practices also produce multiple additional economic and environmental benefits.

[This report from Environmental Entrepreneurs \(E2\)](#) offers case studies of some of the innovators seizing the economic opportunities with regenerative agriculture:

Farm Profits and Economic Recovery

Climate-smart agricultural practices offer a path to economic recovery and long-term profitability for hard-hit farmers by delivering increased and more consistent crop yields, reduced costs for inputs (fertilizer, fuel, pesticides) and crop insurance, and the opportunity to participate in markets for soil-based carbon removal.

Ag Tech and Job Creation

“Ag tech” is one of the fastest-growing technology sectors, with investors from across the financial sector funding startup companies creating highly skilled jobs in technologies such as microbial soil additives, advanced sensors, drones, monitoring software, GPS mapping, genomics, AI, and data analytics.

Valuing Carbon Removal and Ecosystem Services

While storing carbon from the atmosphere in agricultural soils can be a key factor in the battle against climate change, the practices that sequester carbon also deliver a wide range of other environmental benefits—including improved water quality and conservation, improved air quality, greater biodiversity, and reduced toxic inputs.

Bridging Partisan Divides

Support for policies to incentivize agricultural carbon sequestration has bridged the historically contentious divide between the environmental and agricultural communities because the

practices that restore and enhance soil carbon produce both economic benefits for farmers and natural resource benefits to society.

Policy Toolkit

The preponderance of legislative activity on healthy soils and carbon removal in Congress shows that this is an initiative that can create value for all stakeholders and bridge the partisan divide on climate policy. Forward-thinking state and federal policy measures, if enacted, could greatly advance the knowledge, innovation, and implementation of regenerative farming practices for healthier soils and carbon removal. Among them are:

Help farmers adopt regenerative agriculture practices:

Reform Federal Crop Insurance. One of the largest annual public expenditures on the agricultural sector is the Federal Crop Insurance Program, which should be revised to provide a true risk management tool that incentivizes cover crops to improve resilience and sequester carbon. These types of programs could be enacted in any state (and have already seen success in Indiana and Illinois!), and investment from the federal level (as recommended by the recent House Select Committee on the Climate Crisis) could spur greater adoption.

Leverage public dollars to finance transitions to regenerative practices. Any cost savings from subsidy reform should be reinvested back into the agricultural community, helping to spur a strong response to climate change. Examples include low- or no-interest loans to support transition to regenerative agriculture, and financing high-impact projects such as compost infrastructure, processing facilities for grain and livestock, and high-cost practices such as agroforestry.

Invest in a rural restoration economy. Existing state and federal programs and partnerships, such as AmeriCorps, provide a framework for such an effort; pending federal legislation, including the bipartisan CORPS Act, would dramatically increase investment in public works projects. Efforts to bolster these public works programs should include jobs implementing regenerative agriculture practices.

Scale up certification. Existing federal standards for organic agriculture require many regenerative practices, including reduced chemical use, cover cropping, crop rotation, and use of compost, with third-party verification. But the National Organic Program should be strengthened to include more specific soil health requirements, in parallel with efforts to enhance consumer awareness and preference for carbon-negative products.

Incentivize carbon sequestration to benefit farmers and the environment:

Increase funding and expand the scope of the Soil Health Demonstration Trial in the 2018 Farm Bill. This bill incentivized farmers across the U.S. through grants to adopt regenerative practices and track their results, creating a valuable knowledge base for future use and innovation. With major new funding in the 2023 Farm Bill, the program can expand to cover a wider range of geography, farm sizes and cropping systems, speed technological development, and qualify farmers to participate in carbon markets.

Increase investment in carbon removal projects in the USDA's Environmental Quality Incentives Program (EQIP). Although EQIP awards grants for a wide range of regenerative practices that include composting, cover cropping, and erosion control, its effectiveness could be improved by prioritizing “bundles” of practices that together lead to greater carbon sequestration.

Increase accessibility to carbon credit marketplaces. The nascent field of carbon credit marketplaces can be complex and daunting for farmers exploring this economic opportunity. There are now both federal and state initiatives to enhance and standardize carbon accounting methods to qualify producers to participate in both private and public carbon markets. Policies should be designed to ensure farmers of all sizes can effectively participate.

Develop markets for low carbon ag products. In addition to climate-beneficial food, another example could be feedstock for transportation fuel that earns credits under a Low Carbon Fuel Standard, based on both the reduction in energy inputs and the sequestration of carbon in the soil during feedstock production. The feedstock farmer would be eligible for higher sales values due to their verified contribution to the fuel's high credit generation.

Action Items

1. Meet with the farmers in your state to better understand their specific concerns and identify policies or incentives that will enable them to adopt regenerative agriculture practices and prosper by them.
2. Advocate for funding for your state's community colleges, public universities and vocational schools to expand their Ag Tech program to prepare the workforce for future opportunities.
3. Identify policy opportunities where you can help build a coalition of support for regenerative agriculture practices at the federal level (like the 2023 Farm Bill), as well as the local and state level.

Additional Resources

[E2's full report on Healthy Soils and the Climate Connection.](#)

[The Rodale Institute:](#) Educational and training resources, funding information, and more!

[US Department of Agriculture:](#) Information about sustainable agriculture

[Regeneration International:](#) How-to videos, networking and advocacy resources

[Regenerative Agriculture Alliance:](#) With particular focus on poultry production

[Sustainable Food Trust:](#) Information about measuring sustainability

[Farmers Advancing Regenerative Management Systems \(FARMS\)](#)