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# SOIL HEALTH POLICY

DEVELOPING COMMUNITY-DRIVEN  
STATE SOIL HEALTH POLICY  
AND PROGRAMS

Abbey Warner  
Darya Watnick



Yale SCHOOL OF  
THE ENVIRONMENT

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# EXECUTIVE SUMMARY

This guidebook provides a step-by-step guide to creating community-driven, state-level soil health policy and programs. Through detailed explanations and definitions, visual diagrams, and case studies, the reader is able to learn lessons from successful efforts throughout the country.

**BUILDING YOUR COALITION** defines the components of a successful coalition and advises on fundamental aspects of coalition building, including choosing a facilitator, coordinating the group, engaging key players, and communicating the work of the coalition.

**MOBILIZING AS A COALITION** describes how a coalition can decide on core principles, a decision-making framework, and an organizational structure to guide the coalition's meetings. This section also explains how to host listening sessions to get input from relevant communities on the coalition's work.

**DEVELOPING POLICY OR PROGRAMS** chronicles how to build a soil health program and, if relevant, advises on how to pass corresponding legislation at the state level. The section also covers implementation and the monitoring and evaluation of a soil health program.

**FUNDING OUTLINES** the process for finding resources to support the work of a coalition and the policy or program itself.

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# INTRODUCTION

## PURPOSE

This guidebook provides practical advice for people interested in supporting community-driven, state-level soil health policy and programs. It describes the importance of addressing soil health at the state level, how to build an effective and inclusive soil health coalition, logistics around mobilizing the coalition, development of a soil health policy or program, and funding options. The approach presented within the guidebook is drawn from interviews with over 30 experts, including producers (farmers, ranchers, and farmworkers), academics, scientists, funders, state agency staff, and nonprofit organization staff. Alongside clear explanations and illustrative visuals, the guidebook provides case examples for the reader to glean lessons learned from successful efforts elsewhere. Feel free to skip directly to the sections that are most relevant to you, and check for links to additional resources sprinkled throughout.

## INTENDED AUDIENCE

This guide is for anyone interested in creating or joining a community-driven soil health coalition to push for policy or programming at the state level. These individuals and organizations include producers, environmental and agricultural state agency and legislative staff, state officials, nonprofit organization staff, academics, and producer union representatives. While soil and climate conditions vary tremendously across the United States, this guidebook is applicable across regional contexts because it highlights the work of coalitions rather than specific soil health practices.

**ONE NOTE:** *the language in this guidebook primarily reflects the agricultural context of soil health because many states have a significant agricultural history and economy. However, soil health also forms an important consideration for urban, forest, and other land uses.*

## WHY IS SOIL HEALTH IMPORTANT?

Conventional agricultural practices in the United States have had steep economic and environmental costs. Over the past century, **soil managed for agriculture has lost as much as 60% of its original carbon content** (a proxy for soil health). **Every year, the U.S. loses approximately 996 million metric tons of soil due to erosion and 4.4 billion pounds of nutrients are lost to the environment** because of degraded soils on agricultural lands.<sup>1</sup> Agricultural producers report that soil health is one of their top concerns.

## UNHEALTHY SOILS CAUSE PROBLEMS SUCH AS:

- Polluted drinking water supplies and degraded aquatic ecosystems
- Air pollution
- Increasing input costs for agricultural production
- Reduced water holding capacity and reduced drought resilience

Soil health connects to natural resource challenges that vary across and within states. States that have already passed or implemented a soil health policy or program—including California, Colorado, Illinois, Massachusetts, and New Mexico—report being motivated specifically by their nutrient management responsibilities and carbon sequestration commitments, among other factors. Approaching these challenges through a soil health lens can bring about co-benefits such as improved water quality and quantity, ecosystem health and restoration, climate change mitigation and adaptation, agricultural productivity, and overall resilience.<sup>1</sup> **A focus on soil health also provides common ground for stakeholders who may be used to being on different sides of other natural resource issues.** As a result of its multiple benefits and broad base of support, soil health has become a key state policy issue over the past ten years.

## A COMMUNITY-DRIVEN STATE POLICY APPROACH

The community-based approach is important because policies based on community input and engagement are more effective, longer-lasting, and have a greater impact. In addition, these policies have positive local effects on water and air quality, nutritional content of crops, and farmworker health, as well as broader impacts at the state and national scale.

At the state level, soil health policies and programs can provide educational, technical, and financial assistance for producers to implement practices; regionally-appropriate soil test access; and additional staff time and resources for existing entities such as conservation districts. Unlike a federal mandate, a state-level approach to policy may face less opposition due to greater bipartisan support. Therefore, working at the state level can more easily fill gaps left by federal legislation, act as a policy lab providing examples for federal action, and create programs for future federal funding opportunities. For this reason, the Food and Agriculture Climate Alliance recommends that the United States Department of Agriculture establish a grant program to build state capacity to improve soil health on agricultural lands.<sup>2</sup>

The creation of strong healthy soils legislation across the country both supports the on-the-ground work of farmers and practitioners and enables adoption and implementation of practices that are better for soil health than conventional agricultural practices. Humans have been managing land for thousands of years.

1 Daniel Kane, “Carbon Sequestration Potential on Agricultural Lands: A Review of Current Science and Available Practices” (Break through Strategies & Solutions; National Sustainable Agriculture Coalition, November 2015).

2 Zippy Duvall, Elizabeth Gore, Chuck Conner, and Rob Larew, “Food and Agriculture Climate Alliance Presents Joint Policy Recommendations” (Food and Agriculture Climate Alliance, November 2020).

The soil health principles (and associated practices) that today’s producers and land managers use to maintain and improve soil health are based on the knowledge and practices of indigenous communities around the world. These management techniques are time-tested and were once commonplace throughout the United States.

A number of states already have policies supporting and advancing soil health management practices, and many more are now starting to garner support for healthy soil legislation and programs. For example, the Colorado Collaborative for Healthy Soils (CCHS) worked with the Colorado Department of Agriculture and other stakeholders to pass legislation in 2021 that established a state soil health program.

Farmers and ranchers in the United States are already protecting and improving soil health. By supporting land owners, land managers, and workers to create healthy soils, we can help address state-level natural resource and social challenges such as water quality, economic viability of rural communities, and food provision. **There has never been a better time to build or join a community-driven soil health coalition and become an integral part of the way soil health policies and programs are being designed and implemented.**

## WHAT IS SOIL HEALTH?

Soil health is surprisingly complex, because it encompasses physical, chemical, and biological factors which are heterogeneous across space and time. Creating a shared definition of soil health ensures that everyone in your coalition is starting out on the same page.

The Natural Resources Conservation Service (NRCS) description of soil health is the most widely agreed upon and is a good starting place for your coalition to develop its own definition:

“Soil health, also referred to as soil quality, is defined as the continued capacity of soil to function as a vital living ecosystem that sustains plants, animals, and humans.”

Different land uses and natural resource management solutions rely on different aspects of soil health, so the idea of healthy soil, the benefits it provides, and the practices used to achieve it all vary.

Luckily, there are broad principles behind soil health that apply in all contexts:

- 1 . Maximize soil cover
- 2 . Reduce soil disturbance
- 3 . Maximize biodiversity
- 4 . Maintain a continual live plant or root in the soil
- 5 . Integrate best management grazing livestock practices

Depending on geography and climate, specific practices that follow soil health principles can include compost application, cover cropping, and crop rotation.

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# BUILDING YOUR COALITION

**COALITION:** a temporary alliance of distinct parties, persons, or states for joint action.

Start out by building a coalition of partners who are interested in and affected by soil health. This section describes components of a successful coalition and provides advice on key aspects of building a coalition, such as choosing a facilitator, coordinating the group, engaging with key players, communicating about the work of the coalition, and potential roadblocks.

## BENEFITS OF COALITIONS

Creating a broad-based, community-driven coalition with shared goals builds power to push for soil health policies or programs. As the saying goes, **“if you want to go fast, go alone. If you want to go far, go together.”** Coalitions may require more work, but the act of connecting existing organizations into a larger network can:

- Help achieve bigger wins
- Increase the group’s political and social power
- Increase the coalition’s ability to get money
- Lead to greater relationship building resulting in more effective work
- Help policymakers understand what their constituents want
- Increase buy-in to policy development from all stakeholders by including their input



# CASE STUDIES

Numerous coalitions have fought for change across many issues- and won! Some examples include:

The Coalition of Immokalee Workers (CIW) is a worker-based human rights organization focusing on social responsibility, human trafficking, and gender-based violence at work. Their national Campaign for Fair Food educates consumers on the issue of farm labor exploitation, both its causes and solutions. Through CIW's Fair Food Program, buyers supported a wage increase by paying an additional penny per pound for tomatoes and requiring a human-rights-based Code of Conduct to be implemented on the farms. The Campaign has secured Fair Food Agreements with 14 multi-billion dollar food retailers, such as Walmart, McDonald's, Subway, Trader Joe's, and Taco Bell.

The National Black Food and Justice Alliance is a movement made up of Black farmers, organizers, and land

stewards working for Black food sovereignty, self-determining food economies, and land justice. The coalition has focused on building visibility, institutions, direct action, and cultivating collective spaces and wisdom. In 2020, the National Black Food and Justice Alliance met with Senator Cory Booker and Senator Elizabeth Warren's teams to craft legislation addressing the long legacy of USDA discrimination and displacement of Black communities and Black farmers. The coalition and its many partners accomplished a victory in 2021 when Senators Booker, Warren, Gillibrand, Smith, Warnock, and Leahy announced the Justice for Black Farmers Act, parts of which were later included in the American Rescue Plan COVID-19 stimulus relief package.

In 2019, Audubon Arkansas successfully campaigned to remove the state's ban on solar leasing and power purchase agreements, collectively known as third party financing. Arkansas was one of only a handful of states that prevented individual choice in finance mechanisms for renewable power generation. By building grassroots power and recruiting traditional and non-traditional allies, Audubon Arkansas was able to dismantle the regulatory burden preventing Arkansas from missing out on the solar market boom.

## KEY PLAYERS

A coalition's success depends on who sits at the hypothetical table. The specific context of a state and its land uses will guide who gets involved in the coalition. Identifying key players who can be core members of the coalition, representing different communities of practice, will lead to a greater understanding throughout the group. It is important to have a balance of representation across regions, race, gender, age, experience level, operation size, and other factors.

To ensure that the work you're doing is relevant to the people most impacted by it, consider starting your coalition with a core group (e.g., producers and producer representatives). Afterward, you might expand the coalition to include other stakeholders who may not be as directly impacted (e.g., consumers).

**TABLE 1: POTENTIAL KEY PLAYERS**

GROUP	IMPORTANCE OF COALITON	BENEFITS OF INVOLVEMENT	EXAMPLES
<p><b>Farmers, Ranchers, Producers, Landowners</b></p>	<ul style="list-style-type: none"> <li>• Listening to what producers want and keeping that in consideration will make these initiatives successful</li> <li>• The priorities of producers might be different from scientists or policymakers</li> </ul>	<ul style="list-style-type: none"> <li>• Healthy soils can provide resilience in the face of drought and extreme weather</li> <li>• They can be leaders in this space and help address the economic concerns of their communities</li> </ul>	<ul style="list-style-type: none"> <li>• Source producer representatives that represent different farming scales and techniques</li> <li>• Consider racial, geographic, gender, and economic diversity</li> </ul>
<p><b>Farmworkers</b></p>	<ul style="list-style-type: none"> <li>• Farmworkers may have different concerns than farmers or landowners farmers or landowners</li> <li>• Farmworkers will be implementing soil health practices so they should be included from the beginning</li> </ul>	<ul style="list-style-type: none"> <li>• Ability to provide input into policies or programs that would support farming and ranching practices</li> </ul>	<ul style="list-style-type: none"> <li>• Recruit individual farmworkers from distinct types of farms and ranches</li> </ul>
<p><b>Conservation Districts</b></p>	<ul style="list-style-type: none"> <li>• Conservation districts are the existing infrastructure for connecting between government and producers at the local level</li> <li>• Producers often already have relationships with their local conservation district and look to them for information</li> </ul>	<ul style="list-style-type: none"> <li>• Conservation districts coordinate stakeholders to develop locally-driven solutions to natural resource challenges, so engaging in a soil health coalition allows them to provide input into legislation that can steer more resources to support their work</li> </ul>	<ul style="list-style-type: none"> <li>• Find contacts through the National Association of State Conservation Agencies</li> </ul>
<p><b>State-level producer organizations</b></p>	<ul style="list-style-type: none"> <li>• These organizations have connections with public officials and business leaders, and wield both local and national influence</li> </ul>	<ul style="list-style-type: none"> <li>• These groups advocate for their producer base and may want to ensure that any proposed policies work for their producers</li> </ul>	<ul style="list-style-type: none"> <li>• Approach groups, such as the Corn Growers Association, Organic Growers Associations, and farmers unions</li> </ul>
<p><b>University extension and research</b></p>	<ul style="list-style-type: none"> <li>• Academics who are also part of a land-grant university's extension will already be working directly with farmers</li> <li>• These relationships can add credibility to the work of the coalition because farmers already trust scientists and extension agents</li> <li>• Academics can help answer questions on the science for those on the policy side as well as research best practices and policies from other states</li> </ul>	<ul style="list-style-type: none"> <li>• Opportunities to conduct applied research and use science to inform real policy questions</li> </ul>	<ul style="list-style-type: none"> <li>• Research the faculty and staff at land grant universities and at universities with extension programs</li> </ul>

GROUP	IMPORTANCE OF COALITION	BENEFITS OF INVOLVEMENT	EXAMPLES
<b>Food policy organizations</b>	<ul style="list-style-type: none"> <li>Your early members may decide it's worth thinking about how to bring food consumers into the conversation; these organizations can also bring in perspectives around consumer education, demand, and market access</li> </ul>	<ul style="list-style-type: none"> <li>Organizations looking for support and for access to consumers may have an interest in state policy and learning from stakeholders in other regions</li> </ul>	<ul style="list-style-type: none"> <li>Look into municipal food policy councils</li> </ul>
<b>State agencies and legislators</b>	<ul style="list-style-type: none"> <li>Many state agencies and departments support conservation at the local level</li> <li>Having a state representative can also ensure the project stays in line with government goals, as well be the champion for the program within the state house</li> </ul>	<ul style="list-style-type: none"> <li>Ability to address social, environmental, and financial challenges faced by constituents</li> <li>Opportunity to align across agencies and take advantage of federal and other funding for carbon sequestration, water quality, and other natural resource issues</li> <li>Opportunity to help develop measurement and reporting standards to use in state-level greenhouse gas emission and sequestration inventories</li> </ul>	<ul style="list-style-type: none"> <li>Find specialists at agencies like the Department of Agriculture, Department of Energy, or Department of Environment or Natural Resources</li> <li>Also, look for individual legislators who have sponsored related bills</li> </ul>
<b>Non-profit organizations</b>	<ul style="list-style-type: none"> <li>These can include environmental nonprofits or other organizations with related missions</li> </ul>	<ul style="list-style-type: none"> <li>Partner with practitioners and a diverse group of organizations to implement policies that support their environmental/social organizational mission</li> </ul>	<ul style="list-style-type: none"> <li>Ask other members for their favorites</li> <li>Examples include the Xerces Society, which does state-level pollinator work, the National Sustainable Agriculture Coalition, The Nature Conservancy, Ducks Unlimited, and Audubon</li> </ul>
<b>Rural communities</b>	<ul style="list-style-type: none"> <li>Despite a common assumption that agricultural voices represent rural communities, these groups can have distinct priorities</li> <li>It is also important to understand the connections and perspectives between urban and rural areas</li> </ul>	<ul style="list-style-type: none"> <li>Investment in agriculture can support the financial viability of nearby communities</li> </ul>	<ul style="list-style-type: none"> <li>Visit local community and economic centers or non-profit organizations</li> </ul>
<b>Urban communities</b>	<ul style="list-style-type: none"> <li>Urban areas contain consumers of and markets for agricultural products, and can drive demand for healthy soil practices</li> </ul>	<ul style="list-style-type: none"> <li>Urban advocates can advance health, air quality and social equity through soil health-related topics like urban agriculture, compost, food policy councils, institutional procurement, remediation of contaminated sites, and consumer education</li> <li>Urban areas also face long-standing challenges Urban areas also face long-standing challenges stemming from racial inequity, leading to a lack of access to healthy food</li> </ul>	<ul style="list-style-type: none"> <li>Explore community and economic centers or non-profit organizations</li> </ul>

## PRO TIP



### IDEAS FOR GETTING NEW PARTICIPANTS

- Ask your invitees to share the invitation with others
- Ask participants who else should be invited
- Build one-on-one relationships with people who should be included
- Set up tables with flyers at relevant conferences
- Clearly discuss how this work will benefit coalition members
- Build and maintain an email listserv for soil health topics

## COORDINATION

Successful soil health coalitions tend to have skilled and motivated coordination teams keeping them on track. The coordination can come from one person or several people, and may include the meeting facilitators. Ideally, coordinators and others within the leadership of the group already have a network of potential invitees.

### To guide you along, focus on these words of wisdom from other coordinators:

- Don't forget to define soil health together (see *What Is Soil Health?* for details)
- Healthy disagreement leads to broader engagement and to principles the whole coalition can defend
- Balance leading big process conversations, which take time, with making measurable progress toward stated goals
- Meet people where their interests are to harness their enthusiasm
- Cultivate trust, in part by checking explicitly in meetings to ensure that everyone feels like they are building something together
- Steer clear of pushing a specific agenda
- Channel your inner diplomat to have confidential conversations and bring forth members' ideas carefully
- Expect moments of friction *and* alignment—remember that it's up to the coordinators to glue everything together

### Also consider this practical advice:

- Early in the goal-setting process, reach out to people at state agencies for input and keep them in the loop with regular updates
- Establish a group decision-making process for the coalition

- Strategize about how to engage with farmers and ranchers
- Throughout the process, revisit who else should be speaking, and invite more people consistently and intentionally so that nobody from a relevant constituency feels left out
- Reach out routinely to conservation districts for participation and feedback
- Invite stakeholders to share updates about relevant work to promote collaboration and alignment
- Secure funding early and celebrate when you do; funding can be important for bringing groups together, achieving goals quickly, and providing longer-lasting support
- At the same time, recognize other wins such as an effective meeting or productive conversation because strong communication, organization, and relationships can sustain a group even when money seems hard to find

## WHAT MIGHT A FACILITATOR DO?

- Volunteer or be staffed by an involved organization
- Set meeting agendas (with input from coordination team)
- Prepare meeting materials
- Send out meeting invites
- Take feedback and propose next steps
- Call on people for input and invite participation during meetings
- Reflect back: “This is what we talked about and what I thought I heard us decide on, is that true?”
- Follow up with people on what they said they were going to do
- Have one-on-one or small group conversations with coalition members to gain understanding and build relationships
- Manage an email list and newsletter
- Demonstrate an open mind about how the group reaches its goals—don’t come in with rigid expectations

## GETTING TO NEUTRAL

In the coalition-building process, there may be individuals or organizations who tend to oppose soil health policy. These groups may hold a lot of local political or economic power and not initially be inclined to participate. **Engaging directly and early with these stakeholders may help move them to a more neutral position, if not an advocate role.** Create a strategy for navigating these relationships and keeping them informed of the progress of the coalition. Think about how to structure the coalition so that these voices are heard and the organizations’ concerns are being considered, perhaps by setting up an individual

conversation or giving members speaking time at a meeting. At the same time, the group needs to be aware from the beginning that consensus is not necessarily unanimity in decision-making; occasionally you will need to move forward without complete agreement.

For example, agricultural organizations are protective of their producer constituents and sensitive to the fact that farmers and ranchers often receive blame for the negative environmental impacts of the food system. In that case, articulate that the program will meet producers where they are and amplify what they are already doing. Most states have created voluntary and incentive-based programs to appeal to producers. Additionally, creating space to highlight the important work that many farmers and ranchers are already doing can help cultivate community around soil health.

## MESSAGING

The way you frame soil health can impact who wants to be involved. Take stock of who is participating and who you want to participate, and craft your messaging (e.g., initial invitations to key players) accordingly. Similarly, consider the audience and their interests when framing external communication materials for the coalition. Remember that, in the end, **soil health has numerous benefits that already resonate with a variety of audiences.**

While soil health has real potential benefits such as increased organic matter, lowered input costs, and increased drought resilience, you should not present it as a silver-bullet solution to all challenges in all regions. Like many environmental challenges, soil health depends on context.

### Consider these words of wisdom:

- Scientists can be inclined to point to evidence supporting soil health practices, but sometimes stories and personal experiences provide better motivation. For example, the American Farmland Trust is one organization that highlights case studies from growers.
- Create communications materials that policymakers can understand and that explicitly call on people to do something. This can galvanize public involvement.
- Views on **climate change and carbon sequestration** are shifting, but it may be more useful to instead discuss resilience to drought and extreme weather.
- Be aware of the **urban-rural divide** and avoid caricatures or assumptions that play into it.
- Producers don't want to be told how to farm or ranch by someone who does neither.
- Emphasize the benefits that producers and other stakeholders will see in yield or profit from improved soil health.
- Producers are more likely to join a coalition if the policy or program developed would be **voluntary and incentive-based.**

## PRO TIP



Not all stakeholders will immediately understand the goals of the coalition. Address lingering concerns by checking in often and clearly reiterating the scope of the planned work.

## POTENTIAL OBSTACLES

**In speaking with organizers throughout the country, we heard about potential obstacles that a coalition may run into during its journey. These include the following:**

### **THE CHOICE BETWEEN A BIG OR SMALL TENT COALITION**

A big tent welcomes all, but the complexity of its membership might prevent the policy impact on the timescale needed. Small tents are often more nimble and can catalyze more immediate change.

### **LACK OF FORMALIZED STRUCTURE FOR HORIZONTAL DECISION-MAKING**

A dedicated facilitator or coordinator can create a framework for equal engagement and empowerment, as well as work through any problems that arise.

### **MISUNDERSTANDINGS AMONG MEMBERS**

The facilitator can get ahead of conflicts by using the coalition's framework for meeting participation, relationship-building, and decision-making. This usually means creating a meeting agenda and timeframe that allows for all voices to be heard.

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# MOBILIZING AS A COALITION

Now you've formed a soil health coalition—congrats! You're probably wondering what happens next. As a group, it's time to decide on core principles, a decision-making framework, and an organizational structure. Use the sample meeting schedule and tips to plan out efficient coalition meetings to make progress on your shared soil health goals. Lastly, host listening sessions to gather input from producers and other communities whose needs will be addressed through the policy or program.

## DECISION-MAKING AND CORE PRINCIPLES

One of the first tasks for the coalition is to determine its decision-making framework and core principles. There are many decision-making frameworks and ways to build consensus, so choose the one that reflects how often your coalition meets and how it functions.

Since organizations and individuals may have different soil health goals and concerns, explicitly agreeing upon the group's shared values through core principles is one method for getting everyone on the same page, or at least understanding when they are aligned. Having a common language also helps the group move forward when there are bumps in the road.

**For example, in Colorado CCHS agreed upon the following core principles in order to guide its work:**

- Producer-centered
- Science-based
- Participatory
- Action-oriented
- Pursue only policies and programs that are voluntary and incentive-based



## PRO TIP



Develop draft principles ahead of the first meeting so that the facilitator can present options— it's easier to give feedback on something that already exists!

## ORGANIZATIONAL STRUCTURE

You're ready to get moving: it's time to capitalize on the coalition's energy by creating working groups. Working groups take on projects within topic areas to move the coalition forward in between meetings of the full group.

**These smaller committees, each with a designated leader to guide the work, are important for a few reasons:**

- Everyone coming to the meetings will have some issue they really want to work on; dividing into working groups helps participants make the best use of their expertise or interests
- Involving people throughout the process ensures feelings of ownership so that they will buy in to the end result
- You can streamline the process by having small groups do work and report back to the larger group

When forming working groups, make sure that the person leading each group is connected with or part of the coordination team to be able to share notes and progress. Try to choose working group leaders who will be motivated to follow through, and ideally those whose working time is covered through their jobs.

The **Massachusetts Healthy Soils Action Plan** had a core team, an advisory committee, and several subject matter teams. The teams covered forests, wetlands, agriculture, and urban/ornamental land uses. Coordinators worked to place the right skills on the core team from the beginning, such as expertise in policy, science, communication, and project management. The organization managing the project ran an inclusive engagement strategy through facilitated discussion, thorough communication, group prioritization, transparency. Finally, they allowed extra time for draft review of the final report.

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## MEETINGS

Working groups may need to schedule more frequent meetings, but it is also important to hold regular full-group meetings to keep participants up to date and solicit their feedback as the collaboration progresses.

**Here are some ideas for successful meetings:**

- **SCHEDULE MEETINGS:** Ranchers and farmers operate on seasonal cycles that can prevent them from participating. When possible, host meetings during the off-season, or at least in the evenings or on the weekends.
- **CONDUCT OUTREACH:** Before the initial kickoff meeting, conduct detailed outreach with key groups so that they feel welcomed and know that their input is valued. Think proactively about whether there will be viewpoints missing from the discussion, such as producers, farmworkers, communities of color, and indigenous peoples. Inclusive coalition development grows from good relationship-building, so it is important to reach out and follow up with people one-on-one to learn about their viewpoints and needs.
- **COMPENSATE PEOPLE FOR THEIR TIME:** Hourly or low-wage workers may be sacrificing income to attend working group and full-group meetings. Conversely, some participants might be able to contribute as part of their job responsibilities. If you have funding to do so, it may be appropriate to offer a sliding-scale stipend for anyone who needs it, while asking those who don't to leave the stipend to help fund other participants.
- **SET GOALS:** Similar to developing shared principles, the group can set short-term goals to keep on track and confident about what needs to happen next. For example, the CCHS Coordination Team proposed the following goals for their first year: 1) give input to the Colorado Department of Agriculture on the proposed soil health program, 2) ensure adequate funding for the soil health program, and 3) provide opportunities for participants to learn about related initiatives across the state.
- **ALLOW FOR A FLOW OF INPUT:** Balance spending time gathering feedback with achieving outputs. One method is to solicit input via an online form, develop a draft within the coordination team or a working group, and present the draft during a larger group meeting for potential approval. This avoids bogging down a full-group meeting while allowing multiple opportunities for input. Try to provide at least one thing to review at each meeting, as well as a proposal for the next step. Each person's input might not come into play on every issue, but a good-faith feedback process does a lot for community buy-in on final materials.
- **LEVEL SET:** Remember that not all participants have the same level of soil health knowledge or experience; sharing overview primers and featuring guest speakers on soil health topics can help.
- **KEEP IT TRANSPARENT:** Make meeting notes and recordings available to those who were not able to attend. Share the results of the feedback forms used to collect input on proposals at each meeting.

## SAMPLE MEETING AND TASK BREAKDOWN

In this table we break down tasks for each meeting. These meetings could be scheduled every month, every other month, or more frequently depending upon what makes sense for the participants of the coalition.

TIMELINE	BEFORE TASKS	MEETING TASKS	AFTER TASKS
<b>MEETING 0</b>	<ul style="list-style-type: none"> <li>Gather interested organizations and individuals to be the key members of the coalition</li> </ul>	<ul style="list-style-type: none"> <li>Figure out who will be facilitating and coordinating the group</li> <li>Discuss goals and objectives for the coalition</li> </ul>	<ul style="list-style-type: none"> <li>Create document with goals of coalition and current members</li> <li>Find volunteers to take on moving the projects of the working groups forward</li> <li>Find people with cachet to commit to attending the first meeting to bring others along</li> <li>Get someone within a state department to provide state agency support</li> </ul>
<b>MEETING 1</b>	<ul style="list-style-type: none"> <li>Email these key groups and ask every recipient to invite others with a bcc to you</li> <li>Create a simple meeting agenda</li> <li>Draft decision-making framework and coalition values</li> </ul>	<ul style="list-style-type: none"> <li>Make sure you have a good facilitator</li> <li>Discuss and implement outreach to ensure the group represents the diverse agricultural as well as racial, economic demographic landscape of the state</li> <li>Propose framework and core values</li> <li>Introduce working group topics to drive work forward between meetings</li> </ul>	<ul style="list-style-type: none"> <li>Draft, revise, and send out Google forms to solicit feedback</li> </ul>

TIMELINE	BEFORE TASKS	MEETING TASKS	AFTER TASKS
<b>MEETING 2</b>	<ul style="list-style-type: none"> <li>• Collect results from feedback forms</li> </ul>	<ul style="list-style-type: none"> <li>• Go over results from feedback forms and decide on the core values</li> <li>• Solidify coordination team —open to all for logistics and decision-making</li> <li>• Launch working groups with group leaders</li> </ul>	<ul style="list-style-type: none"> <li>• Send out new Google forms to solicit feedback</li> </ul>
<b>MEETING 3</b>	<ul style="list-style-type: none"> <li>• Collect results from feedback forms</li> <li>• Prepare short-term goals</li> <li>• Science &amp; Practice Working Group writes up proposed soil health definition</li> <li>• Create map of engagement: where listening sessions and meetings are likely to be held</li> </ul>	<ul style="list-style-type: none"> <li>• Go over results from feedback forms</li> <li>• Hear working groups present on progress</li> <li>• Agree to a shared definition of soil health</li> <li>• Present short-term goals</li> <li>• Review plan for stakeholder engagement and listening sessions throughout the community</li> </ul>	<ul style="list-style-type: none"> <li>• Send out updated Google forms to solicit feedback, analyze feedback trends</li> <li>• Hold listening sessions throughout state</li> </ul>
<b>MEETING 4</b>	<ul style="list-style-type: none"> <li>• Collect results from feedback forms</li> </ul>	<ul style="list-style-type: none"> <li>• Go over results from feedback forms</li> <li>• Check in about listening session progress</li> <li>• Share information about budget process and legislative process for proposing soil health bill</li> </ul>	<ul style="list-style-type: none"> <li>• Hold listening sessions throughout state</li> </ul>
<b>MEETING 5</b>	<ul style="list-style-type: none"> <li>• Prepare results of listening sessions to present to full group</li> </ul>	<ul style="list-style-type: none"> <li>• Review results of listening sessions</li> <li>• Issue updates on progress of soil health program</li> </ul>	<ul style="list-style-type: none"> <li>• Assign next tasks to working groups</li> </ul>
<b>MEETING 6</b>	<ul style="list-style-type: none"> <li>• Prepare proposal for legislation</li> <li>• Draft proposal for soil health program</li> </ul>	<ul style="list-style-type: none"> <li>• Review proposals for legislation and soil health program</li> </ul>	<ul style="list-style-type: none"> <li>• [continue as needed]</li> </ul>

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## LISTENING SESSIONS

Listening sessions are one tool for understanding producers' and other communities' perspectives on soil health. They let people talk naturally and frankly about what's working, what's not working, and how the state can help drive progress. **Gathering information about people's knowledge and motivations will lead to more effective soil health policies and programs.**

### How can you run a strong listening session?

- **FIND A TRUSTED LOCAL HOST IN EACH COMMUNITY** to give legitimacy to the meeting, and ask that person to advise on whom to invite. For example, conservation districts are already respected by a broad range of producers. In New Mexico, the Quivira Coalition also acted as a neutral convener.

- **DESIGN A SET OF BASIC QUESTIONS.**

For example, below are the questions that were used in Colorado.

**Question 1:** What soil health practices have you (currently or in the past) implemented in your operations?

**Question 2:** Why do/did you use those practices?

**Question 3:** What else would you like to be doing in your operations for soil health (i.e., additional practices)?

**Question 4:** What mechanisms (programs, policies, other supports) would be most helpful to increase your use of soil health practices/strategies?

**Question 5:** Where do you get information about soil health? Do you feel like you have enough information? What additional types of information about soil health would you like?

**Question 6:** The Department of Agriculture has requested funds for a new position around soil health. How could these funds best be used?

- **PROVIDE A VARIETY OF FEEDBACK MECHANISMS TO GATHER INPUT.**

Not everyone will use every method, but you'll get more candid responses if people can give feedback however they feel most comfortable. Some ideas are onsite polling, informal conversation, small group peer-led conversations with note-taking guidance provided, sticky dot voting on a flipchart, pre/post surveys, and online tools for brainstorming and voting.

- **IF YOU WANT QUANTITATIVE RESULTS**, think about the questions and data collection methods that will generate that information. It's also possible to code qualitative data to identify findings.

- **LANGUAGE IS IMPORTANT.** Some people are ready to talk about climate change and carbon sequestration, and other people would rather discuss biodiversity or yields. You'll find different starting points for different people, so enter discussions with open-ended questions that will allow people to show up as themselves (see the [Messaging](#) section for more).

- **GET FEEDBACK FROM FARMERS AND RANCHERS** by holding listening sessions in locations and at a time that respects producer schedules. Also, think about where people are already coming together, such as at conferences.

## PRO TIP



Understanding producers' and other communities' soil health needs is one of the most important ways to design effective, meaningful, and sustainable policies and programs. You may find after hours of review that your questions feel imperfect. Ask them anyway.

# DEVELOPING POLICY OR PROGRAMS

Whether your coalition aims to pass state legislation or to create a state-led soil health program, now is the time to execute. In this section, you will learn how to research existing policies and programs, think about the specific context of your state, work through the legislative process, plan for implementation, and follow through for future adjustments using monitoring and evaluation.

## RESEARCH EXISTING POLICIES AND PROGRAMS

When designing a state soil health policy or program, it may be helpful to draw from existing examples. Below, find a brief description about the approaches taken in California, New Mexico, Massachusetts, and Colorado, as well as the Saving Tomorrow's Agricultural Resources program that has been adopted in several states. As more states get involved in soil health work, this landscape will continue to expand.

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Resource alert: the [State Health Soil Policy Map](#) is a crowd-sourced policy tracker designed to support the growth of healthy soil and related policies by sharing frameworks and lessons learned. You can join the Healthy Soils Legislation listserv [here](#) to receive legislative updates.

### **CALIFORNIA'S HEALTHY SOILS PROGRAM**

California's [Healthy Soils Program](#) (HSP) is funded by proceeds from the state's cap and trade program. Between 2016 and 2019, the Healthy Soils Program received \$40.5 million in cap and trade revenue. There are two main parts of the California HSP: the Incentives Program and Demonstration Projects. The HSP Incentives Program provides financial assistance for implementation of soil health practices that sequester soil carbon and reduce greenhouse gas emissions. HSP Demonstration Projects collect data and/or showcase farmers' and ranchers' implementation of soil health practices.

### **NEW MEXICO'S HEALTHY SOIL ACT**

New Mexico's Healthy Soil Act was signed into law in 2019 and created the state's [Healthy Soil Program](#). The program directs the New Mexico Department of Agriculture to award nations, tribes, pueblos, land grant universities, and conservation districts grants to improve soil health and soil health stewardship. The grant applications received in the first year requested a combined \$1.37 million, far exceeding the \$175,000 of funding available. The following year, the program secured \$227,000 of recurring funding from the state with a federal match of \$100,000 or more.

### **MASSACHUSETTS' HEALTHY SOIL AMENDMENT**

As part of the 2021 Economic Development bill signed by the Massachusetts State Legislature, the governor approved the Healthy Soil Amendment, which creates a fund and program to provide educational, technical assistance, and financial incentives to farmers and land managers. One unique feature of Massachusetts's program is that in addition to agricultural lands, it also covers forests, green spaces, and other non-paved landscapes.

### **STAR PROGRAM**

The Illinois STAR Program, or Saving Tomorrow's Agricultural Resources, takes a unique approach to state soil health. Developed by the Champaign County Soil & Water Conservation District, the STAR program is a free and voluntary tool that assigns points for cropping, tillage, nutrient application and other best management practices. The STAR program is being implemented in Conservation Districts across Illinois, Iowa, and other midwestern states. Some of its success stems from its creation "by conservation districts, for conservation districts," and the public show of commitment focused on changing cultural norms around soil health. It's also cheap and relatively easy to implement and can be aligned with other soil health tools and programs.

## COLORADO'S SOIL HEALTH PROGRAM

The Colorado Department of Agriculture oversees the Colorado Soil Health Program and conservation districts provide matching grants to producers to implement soil health practices. Producers test their soil and receive a rating from the Colorado-adapted STAR program. Soil specialists support producers in evaluating their practices and researchers analyze the impacts of these management techniques on water quality and quantity.

## CONSIDER REGIONAL AGRICULTURE

Every state is going to have resource challenges and agricultural systems unique to its region. Integrating the best available science into the proposed policy or program will facilitate success. This might look like creating a state-specific soil health test or adapting existing soil health rating materials to a new region. Adapting materials using measurable science can take time; in Colorado, it took nine months to create a state soil health test. The Colorado Collaborative for Healthy Soils also found benefit in working with Colorado State University, NRCS, and Agricultural Research Service to guide the technical stability of their program.

Navigating science and agricultural needs relates to what we covered in the “Building Your Coalition” section about getting all of the right people in the room. Balancing producer concerns with scientific outcomes will require a variety of voices.

## LEGISLATIVE PROCESS

Agricultural policy plays a role in how farmers and ranchers operate, so legislation can be an impactful part of a state-level soil health program. We compiled a step-by-step guide to passing a bill, but the particular political context of your state may require a different approach than what we lay out here. The timeline for getting a bill passed will vary depending on the bill's alignment with government priorities and the coalition's position within the legislative ecosystem. Practically-speaking, a good rule of thumb is to plan for a two-year timeline in order to create a coalition and pass soil health legislation.



## STEPS TO PASS A BILL:

<b>1 WRITE</b>	<ul style="list-style-type: none"> <li>• Within a Legislative Planning Working Group, write out a detailed legislative proposal.</li> <li>• Write a one-pager that every member can endorse and carry around—this is an easy way to make a big impact for your legislative campaign.</li> <li>• Work with legislative or agency staff to support the drafting of a soil health bill and its associated program.</li> </ul>
<b>2 CHAMPION</b> (see <a href="#">Key Players</a> )	<ul style="list-style-type: none"> <li>• Find an internal staff champion inside the state government and an external champion with influence in another sector.</li> <li>• Hold a stakeholder forum to bring together potential allies.</li> <li>• Find bill sponsors from the agricultural community.</li> </ul>
<b>3 LOBBY</b>	<ul style="list-style-type: none"> <li>• Find out which legislators can champion the bill and who they listen to. They might be committee chairs or newcomers interested in this bill as their passion project for the current session. Meet with their staff.</li> <li>• Get your one-pager into the hands of people who are part of organizations trusted by legislators and their staff.</li> <li>• Reach out early to legislators who could oppose the bill.</li> </ul>
<b>4 SUPPORT</b>	<ul style="list-style-type: none"> <li>• Draft a letter of support for the bill and get as many people to sign on as possible. Use social media to rally supporters.</li> </ul>

## WHAT BELONGS IN THE BILL?

There are a basic set of factors to consider throughout your policy and program design process.

### Some questions to answer include:

**WHO:** Who administers the program? Who receives resources (i.e., producers, conservation districts, and other organizations)? Is there an advisory committee?

**WHERE:** Does the program focus on specific priority areas within the state?

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**WHAT:** What type of program is it? For example, a program could be voluntary or mandatory, provide grants or loans for soil health practices and/or research, or promote education. You may also want to consider future producer needs and changes in technology by writing in the option for other programs necessary to support soil health. Another way to leave room for future improvements to soil health practices is by defining soil health through principles rather than specific practices.

**WHEN:** How long does the program last?

**HOW:** Is the program funded through grants or legislative funding or both? Would these resources be adequate to cover all of the mandatory duties of the soil health program?

**WHY:** What is the basis for your program (i.e., soil health, water quality, carbon sequestration, or other resource concerns)?

## GET SET TO IMPLEMENT

As you craft your state soil health policy or program, plan for its operationalization. From identifying champions to planning financing, you can chart steps that lead to legislative or administrative uptake of your plan. Consider the timing of both legislative sessions and when producers would be able to submit paperwork to join the pilot or program. For example, one program had low participation because the application timeline did not align with the production timeline for farmers and ranchers.

The benefits of starting with a pilot program are the ability to test and refine materials (such as the soil test and field form), the chance to begin soil health work before receiving enough funding for a full program, and the means of presenting proof of concept for larger funding sources. For example, the Soil Health Program in Colorado is beginning by working with four conservation districts across four distinct areas to test the program across a range of soil types, climates, and crops. Another variable to navigate during the pilot program concerns the incentive mechanism for producers: some states currently incentivize soil health practices through tax credits while others use a grant program.

One common thread across interviews was that conservation districts provide critical existing infrastructure through which to conduct soil health programs. Conservation districts already work directly with producers, so their staff can reliably share information, provide technical expertise, monitor compliance of producers using program funds, and troubleshoot. However, it may be necessary to direct additional resources to conservation districts to address their capacity constraints. Due to the variation in conservation districts, some may also be more or less excited than others to partner on soil health programs. In all of these cases, soil health policies can support capacity-building for local organizations and “train-the-trainer” educational resources on regional soil health practices. In places where the local conservation district is defunct, working with other partners will be necessary to provide opportunities for landowners and operators in that region.

Because the vast majority of soil health programs are voluntary and incentive-based, it is important to think about how to sustain soil health practices over time. This means setting out sources and uses of funds. What are you paying people to do? And how can you structure policy so that producers receive enough co-benefits (such as drought resilience or lower input costs) that they will want to maintain soil health without subsidies? Monetary support can encourage initial adoption of soil health practices, but incurring lower input costs (e.g., fewer pesticides) or additional market access (e.g., profits from increased crop production) can motivate producers to continue soil health practices. Producers might also value non-monetary benefits such as clean water and wildlife habitat.

## PRODUCER BUY-IN

Beyond financial and technical support, social and cultural factors influence producer behavior change. **Peer-to-peer learning can be an effective way to showcase successes, share learnings, and create mentorship opportunities.** For example, the [Farmers Advancing Regenerative Management Systems \(FARMS\) Project](#) is a collaborative cohort model where producers in the High Plains of Colorado, Nebraska, and Kansas are matched with experienced (paid) mentors to tackle soil health. The project also involves creation of regional hubs for knowledge-sharing. Creating networks of producers interested in soil health also opens up opportunities for applied research, group problem-solving, and coordination for accessing markets.

## MONITORING AND EVALUATION

Your policy or program design should include a plan for monitoring and evaluation.

**Post-implementation monitoring and evaluation are critical for a number of reasons:**

- **Transparent measurement builds credibility.** Farmers who do not yet have faith in the practices will need to see that they can be implemented relatively easily and have impact. Taxpayers and policymakers will want to see results.
- Providing databases, research, and findings on soil health tests, practices, implementers, and levels of success will inform the program into the future. **Understanding where the program and soil health practices fall short is equally important; defining limitations will help producers adjust to certain conditions.** Understanding where problems are occurring allows program staff and extension researchers to direct research towards identifying appropriate solutions. More generally, research drives our understanding of what soil health practices mean in financial, ecological, and climate terms.

## ADAPTIVE POLICY DESIGN

Lessons learned throughout the process of designing and implementing soil health policies and programs should inform future iterations, allowing state agency staff and legislators to stay responsive to producer needs.

**Some recommendations that emerged from the California Healthy Soils Program may be applicable to other states' program design:<sup>4</sup>**

- Add support to achieve equity for farmers of color, women farmers, and small and mid-scale farmers
- Conventional farms currently receive the vast majority of grants; create incentives that support producers' transition to organic certification
- Insecure land tenure forms a barrier to participation
- Clarify purpose of soil sampling and data collection for producers and create guidance for data collection and transparency
- Conduct (and pay for) comprehensive program evaluation to assess impact, barriers to adoption, and long-term implementation
- Translate program materials into multiple languages to ensure equitable access

# FUNDING

## INTRODUCTION

As you've read through earlier sections, you may have noticed that creating community-driven soil health policy and programs requires many types of monetary and nonmonetary support. In addition, you want your policy or program itself to be well-funded and function sustainably once implemented. Let's talk about what you need to consider, and where to get funding.

<sup>4</sup> Brian Shobe, Grace Perry, and Jeanne Merrill, "The California Healthy Soils Program: A Progress Report" (California Climate & Agriculture Network, December 2020).

**Questions to ask when considering funding sources:**

- What is the long-term sustainability of the funds?
  - How will you ensure adequate capital?
  - Can you start a pilot project to demonstrate success and then ask the legislature for more permanent funding?
- What will fiscal accountability for the funding look like?
- Who benefits from the money?
- Is the funding source stable or volatile?
- What kind of funds does the coalition need for its particular goals?
- What tax status do you need to establish? Are you a nonprofit or an advocacy group?
- Who is giving the money to the producers?
  - How many hands does it go through?
  - Are there restrictions on how the money is used?
- What tradeoffs have you identified in appealing to restricted funding sources, and can working groups develop strategies to mitigate these tradeoffs?
- How can you encourage producers to share equipment or other resources through mutual aid?

## FUNDING SOURCES

This chart breaks down potential funding sources for a soil health program. Some examples come from existing programs, some are funding sources that directly support farmers with conservation practices, and some to our knowledge have yet to be implemented. Of course, this is by no means an exhaustive list. Creativity and innovation will be helpful when deciding how to fund a soil health program or coalition!

	SOURCE	DESCRIPTION	BENEFITS	LIMITATIONS	EXAMPLES
FEDERAL	USDA Grants	The NRCS has a few large, multi-year grant opportunities that could potentially fund all or part of a soil health program	Multiple year grants can fund the beginning of a soil health program	Many requirements for the use and evaluation of the funds, complex grant applications, and often requires matching funds from other sources	<a href="#">Regional Conservation Partnership Program</a>  <a href="#">Federal Conservation Innovation Grant</a>  <a href="#">Sustainable Agriculture Research and Education</a>  <a href="#">Regional Food System Partnerships</a>
	Farm Bill	These programs support farmers directly with financial and technical assistance to adopt conservation practices on their land	Funds go directly to farmers and often come with technical assistance, but not always	The money can't fund a soil health program overall but could be used in conjunction with other funding  The funding doesn't last forever	<a href="#">Environmental Quality Incentives Program</a>  <a href="#">Conservation Stewardship Program</a>
	Other Federal Grants	Other federal agencies also have grant money available that could support parts of a soil health program			<a href="#">National Institute of Food and Agriculture: Agriculture Food and Research Initiative</a>
	Tax Credits	This idea expands the federal 45Q tax carbon sequestration credit to farmers and ranchers. It could be a proposal for funding at the state level	The infrastructure already exists in the 45Q tax credit program	Reporting and verification system doesn't yet exist  The program (as it stands) only pays for carbon sequestration and not soil health practices, so could leave out smaller farmers or renters	Senator Michael Bennet's Natural Sequestration Tax Credit Draft Legislation

	SOURCE	DESCRIPTION	BENEFITS	LIMITATIONS	EXAMPLES
STATE	State Grants	States often have grant money to distribute for varied projects	Often multi-year grants at large sums that could support a full program for 3-5 years	Many requirements for the use and evaluation of the funds, complex grant applications, and often requires matching funds from other sources	Section 319 Nonpoint Source Pollution Grants  State Conservation Innovation Grants  (check state websites)
	Bonds	Some states allow for the appropriation of specific environmental or agriculture bonds	As a bond, it is backed by the credit and taxing power of the state, so there would be dedicated funding for whatever projects are included in the statute	In New York and California, bonds are on general election ballots so need to be passed by voters	<u>New York's Restore Mother Nature Bond Act</u> (postponed to November 2022 election)  <u>California's Proposition 68 - Parks, Environment, and Water Bond</u> (passed in 2018)
	Tax Rebate Contribution	Allows taxpayers to donate all or part of their income tax refund to the soil health program	Fairly easy to implement	Variable funding source  Will probably require education of taxpayers	<u>New Mexico's HB 89 - Healthy Soil Tax Refund Contribution Option</u>
	Crop Insurance	Tie additional subsidies for crop insurance premiums to the adoption of certain practices	Increases the adoption of the practices under the program	Supports the adoption of certain practices but doesn't support an overall soil health program	<u>Iowa Crop Insurance model</u>
	State Farm Bill	A state farm bill is a unique piece of legislation that could address many issues facing agriculture at the state level	Potential to be a strong piece of legislation with funding allocated over a period of years; a soil health program could be one part of a multi-pronged bill	Could be harder to pass than a single issue bill for a soil health program	<u>Pennsylvania Farm Bill</u>
	Fees	Revenue on fees on pesticides and fertilizers, cattle feed, and/or related permit applications could go towards a soil health program	All of the revenue could go towards the program, and potentially incentivize using less pesticides and fertilizers and incentivize the use of lower enteric emissions cattle feed if the fees are tiered by type of feed	This funding stream could face some resistance and it's unclear how much funding this could produce for a soil health program	Look to the <u>Nebraska Buffer Strip Act</u> as a model for pesticide and fertilizer fees  Look to the Clean Air Act permit applications for vehicles as a model for permit application fees
	Cap-and-Trade Revenue	For states that have cap-and-trade programs for certain sectors, revenue can fund a soil health program	The funding source is established  The revenue funds can be allocated to a soil health program	Variable funding amounts because the revenue from is tied to the cap-and-trade market	<u>California Climate Investments</u>

	SOURCE	DESCRIPTION	BENEFITS	LIMITATIONS	EXAMPLES
NONPROFIT	Partnerships Match Funding	Nonprofits can be a good source of partnerships when applying for government grants and can sometimes provide match funding in dollars or hours worked	Partnerships can increase capacity, especially for the largest federal grants, as well as increase the overall benefits to the program with more support	Navigating partnerships for grants can be very complicated in terms of taxes, accounting, and group dynamics	
FOUNDATION	Grants/ Donations	Foundations, especially mission-aligned foundations, can support the work of coalitions or the beginning of a soil health program	Good sources of both large and small grants to support work at various levels. Often comes with fewer requirements than government funding	The funding won't last forever, so there has to be another option for long-term fiscal sustainability	<a href="#">Regenerative Agriculture Foundation</a> <a href="#">Fundors for Regenerative Agriculture</a> <a href="#">National Fish and Wildlife Foundation</a> <a href="#">Foundation for Food and Agriculture Research</a>
PRIVATE	Cost Share	<p>Cost share funding provides one way to subsidize the cost of implementing soil health practices</p> <p>As more companies transition their supply chains and land under these management practices, more funds may be available from companies for producers</p>	Supports farmers to adopt new practices	The funding doesn't last forever, so there's no guarantee that farmers will continue using the practices	<a href="#">Practical Farmers of Iowa cost share with Pepsi &amp; Unilever, EQIP funding, and farmers</a> <a href="#">Restore Colorado—Zero Foodprint</a>
ADDITIONAL FUNDING RESOURCES	Impact Investing Funds and Loans	There are a number of new types of organizations that seek to invest in the long-term growth of agricultural enterprises	Many support farmers with both technical farming support as well as business training to ensure their farms are long-lasting	These funds are still operating on a fairly small scale	<a href="#">rePlant Capital</a> <a href="#">Maine Harvest Federal Credit Union</a> <a href="#">Croatan Institute, OARS</a> <a href="#">Perennial Fund (Mad Agriculture)</a> <a href="#">Black Farmer Fund</a> <a href="#">Lakewinds Organic Field Fund</a>



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# CONCLUSION

Soil health is a critical natural resource issue that impacts people and the planet. By promoting soil health, states can enhance agricultural productivity, water quality, drought resilience, and carbon sequestration. In addition, state implementation of soil health programming provides a way to leverage funding and coordinate local action by providing resources for technical assistance, soil testing, research, and education.

Soil health is a rich field of study and many relevant topics were simply outside the scope of this report. Future research and collaboration around soil carbon, ecosystem service provision, market access for producers, certification programs, consumer demand and education, and specific soil health practices will inform the creation and implementation of healthy soils programs.

Over the past five years, many states have passed or submitted healthy soils bills and states such as California, Colorado, and New Mexico have created voluntary, incentive-based programs to support producers in building soil health. While each state has undergone a different process to create soil health policies or programs, this guidebook reflects the experiences of those who have participated in the process themselves as well as the needs expressed by those poised to jumpstart the process in their own state.

# RESOURCES

Connect with soil health coalitions and leaders in other states:

- [Soil Health Leadership Lab](#) (Sustainable Food Lab)
- [National Healthy Soils Policy Network](#) (CalCAN)
- [National Center for Appropriate Technology](#)
- [Soil Health Champions Network](#) (NACD)

Find [additional resources and templates](#) provided by the Colorado Collaborative for Healthy Soils:

- Soil health resources
- Meeting and facilitator agendas
- Coalition writeups
- Coalition annual reports
- Working group examples

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## **YALE CENTER FOR BUSINESS AND THE ENVIRONMENT**

The Yale Center for Business and the Environment (CBEY)'s mission is to educate and inspire sustainability leaders through business-led solutions to systemic environmental problems. We do this by equipping our growing network with the interdisciplinary skills and collaborative opportunities needed to create sustainable solutions. Through applied learning programs, research, courses and outreach, we are building pathways to help solve the greatest challenges facing the human and natural systems upon which we all rely. Learn more at [cbey.yale.edu](http://cbey.yale.edu).

## **GROUND UP CONSULTING, LLC**

Ground Up Consulting helps clients develop community-driven policies and programs around soil health, working lands, and natural climate solutions in the Rocky Mountain West and Great Plains. Max Neumeyer and Helen D. Silver play a central role in making Colorado a national leader in soil health, working lands, and natural climate solutions programs and policy. Ground Up Consulting strives to be the go-to consultants to help you with your strategic planning, outreach, and advocacy needs for these issues. Projects include coordinating the Colorado Collaborative for Healthy Soils and Colorado Coalition to Enhance Working Lands (CO CEWL). Max and Helen work closely with many partners and clients such as Colorado Department of Agriculture, Colorado Water Conservation Board, and philanthropic and supply chain partners.

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# ABOUT THE AUTHORS

**ABBEY WARNER** is a Master of Environmental Management candidate at the Yale School of the Environment with a focus on freshwater management, sustainable agriculture, and environmental justice. At Yale University, she coordinates the Water Learning Community and serves as a Regenerative Agriculture Initiative research associate at the Center for Business and Environment. Previously, Abbey engaged international stakeholders and developed reports on issues of water access and corporate water stewardship at the Pacific Institute. Her past positions have included harvesting beets—and other crops—on a family farm in Missoula, Montana; restoring salt ponds to wetland habitat in the San Francisco Bay Area; and capturing lizards on the dunes of White Sands National Park, New Mexico for ecological research. She has a Bachelor of Science degree from the University of California, Berkeley.

**DARYA WATNICK** is a Master of Environmental Management candidate at the Yale School of the Environment with a focus on agriculture and food systems. At Yale, Darya serves as a Research Associate for the Regenerative Agriculture Initiative at the Center for Business and Environment at Yale, is the student coordinator for the Ecosystem Management and Conservation specialization, and chaired the 2021 Yale Food Systems Symposium. Prior to graduate school, Darya spent three years in Israel, volunteering with an Ethiopian community, studying at the Pardes Institute of Jewish Studies, and working with EcoPeace Middle East, an environmental peacebuilding NGO. Most recently, Darya was the Director of Jewish Engagement at the Edlavitch Jewish Community Center of Washington DC, where she had a fellowship in Jewish Outdoor, Food/Farming, and Environmental Education (JOFEE), working to integrate Jewish traditions and rituals with environmental and outdoor education. She has a Bachelor of Arts in Environmental Studies from Lewis & Clark College.