The Natural Resources Defense Council (NRDC) appreciates the opportunity to provide written testimony highlighting opportunities to expand the use of climate-smart farming practices. On behalf of our three million members and activists, NRDC works to safeguard the Earth – its people, its plants, and its animals, and the natural systems on which life depends.

As a part of safeguarding Earth consideration must be given to what we eat and how we produce our food because these things are inextricably linked to climate change. Our current agricultural system threatens our environment and health, but agriculture also has great potential to protect our climate, enhance biodiversity, and build healthier and more resilient communities. Scaling up investments in climate-smart agriculture and forestry and supporting the rural clean energy economy, both through existing programs and new initiatives, will make our farming communities more resilient and will empower farmers contribute to mitigating the climate and biodiversity challenges that threaten their way of life and our country’s crops. These investments will also help farmers navigate financial, technical, and social challenges that may arise as they innovate, as well as ensure that public investments prioritize the needs of the most underserved populations and maximize benefits to public health, ecosystems, and local economies.

I. Rural Jobs and Economic Development
   A. Clean Energy Jobs in Rural America

Clean energy jobs are one path to economic prosperity in rural communities. A shift to a cleaner economy will expand income opportunities for producers and small businesses, reduce energy cost for farmers, consumers and other rural businesses, and create major new job opportunities. According to the Clean Jobs America 2021 report released by E2:

“The clean energy economy is inherently local and in rural nonmetropolitan statistical areas, there are nearly 400,000 workers (about 13%) of the entire clean energy workforce -- and for many rural states, clean energy jobs account for significantly more than that. In 21 states, 25 percent of the clean energy employment was in rural areas and in four (4) states most of the clean energy jobs were in rural areas. In Michigan, this translated into 22,574 (or 19.9%) of total statewide clean energy jobs.”

---

1 E2 (Environmental Entrepreneurs) is a national, nonpartisan group of business leaders, investors, and professionals from every sector of the economy who advocate for smart policies that are good for the economy and good for the environment. E2 members have founded or funded more than 2,500 companies, created more than 600,000 jobs, and manage more than $100 billion in venture and private equity capital. E2 releases more than a dozen clean energy employment reports annually—including Clean Jobs America—with state-specific reports covering more than 20 states every year.
Supporting companies that are in the community helping farmers and rural consumers transition to solar energy will be important moving forward to ensure rural communities are not left behind in the growing clean economy. We also want to ensure rural residents can benefit sooner from all the economic benefits that come with clean energy transition while helping to tackle the climate crisis.

USDA should provide funding to advance rural clean energy deployment, business development and job training particularly for traditionally underserved rural populations. The agency should support the transition to clean energy of rural electricity coops and utilities and continued and expanded support for the Rural Energy for America Program.

B. Civilian Climate Corps

The Civilian Conservation Corps (CCC) was created by FDR in 1933, at a time when the nation desperately needed jobs—and hope. Today we are at a similar moment, and we are also facing the twin environmental challenges of biodiversity collapse and climate change. Charting the path forward for an equitable, climate-resilient recovery is hard work—work that requires pragmatism and vision.

USDA should support and pilot a program that mimics the Civilian Conservation Corps (CCC) and expand it into private lands. The Forest Service has a deep connection to CCC programs, but private lands could also benefit from a revived and modern program operating on these lands. The program could connect farmers and ranchers with a civilian workforce to take on agriculture projects that increase biodiversity, restore critical wildlife habitat, increase carbon sequestration on working lands, and improve access to nature. The USDA agencies, Forest Service, Natural Resource Conservation Service and even the Animal Plant Health Inspection Service (APHIS) have a role to play. And this proposal would mirror the small but significant FY 22 and 23 budget proposal USDA made to pilot an APHIS CCC hub to cultivate the next generation of growers, create good agricultural jobs for underemployed Americans, promote rural entrepreneurship and rural economic development

II. Water Infrastructure

Much of our nation’s water infrastructure is like a rusty decades-old car that has not been maintained or had an oil change or brake job for years. Major investments to upgrade and fix this infrastructure need to be made or it will gradually die and may even catastrophically fail. Despite our successes and efforts to date, drinking water contamination still wreaks devastating impacts. There are 9 to 12 million lead service lines, lead contamination of school drinking water is widespread, and tens of millions, perhaps more than 100 million Americans, are drinking PFAS in the tap water. An estimated 7.1 to as many as 12 million Americans are sickened annually by pathogen-contaminated tap and other water – and this does not include the impacts of toxics. Tens of millions are served by water systems violating EPA’s health standards.

There are three underlying causes: (1) underinvestment in our water infrastructure so water systems too often rely on outdated and inadequate treatment and distribution systems; (2) a broken Safe Drinking Water Act that leaves unregulated widespread and hazardous contaminants like PFAS and allows weak enforcement the drinking water standards that do exist; and (3) poor to nonexistent controls on many major water polluters. Often low-income areas lack any access to safe piped drinking water or effective sanitation.
In Michigan, rural well water often has high arsenic levels and often are contaminated by bacteria or nitrates.\(^2\) Also, outside of major metro areas in Michigan, there are numerous of PFAS contamination sites. As an extensive 2021 review\(^3\) of Michigan’s rural water challenges by Michigan Public Radio confirmed, current funding is woefully inadequate to meet rural water and sanitation needs in Michigan. The investigation pointed out that “there is more demand than supply. EGLE allocated $36.5 million for the program. It received 301 applications requesting $137 million.” The MPR also points out that “[e]ven if towns understand the condition of their systems, not all will be able to finance the upgrades on their own. The USDA Rural Development is a lifeline, but it does not have enough length for everyone who is foundering to grab hold.” The problems include deteriorating and seriously outdated municipal drinking water and wastewater infrastructure, as well as many people across the state and country who don’t have reliable access to safe drinking water or sanitation, especially in lower-income rural areas.

The Farm bill, along with other legislative vehicles, present a unique opportunity to further tackle this issue, including the opportunity to:

1. Invest additional resources in fixing our water infrastructure, paying special attention to the affordability and needs of lower-income and disproportionately affected communities.
2. Fix lead in our water, including removing all lead service lines, fixing the Lead & Copper Rule, and addressing lead in schools and childcare centers.

In addition to addressing these urgent needs in the Farm Bill, we urge Committee members to work with your colleagues include those serving on the Senate Committee on Environment and Public Works to fix the Safe Drinking Water Act. That law has failed to effectively control many drinking water contaminants such as the class of forever chemicals called PFAS and other threats to public health from tap water contamination. We also urge Committee members to work with your colleagues to fund water infrastructure investments through reconciliation, appropriations, and other moving legislative vehicles. Additionally, we urge you to press the Environmental Protection Agency to swiftly overhaul the agency’s weak Lead and Copper Rule, which EPA administrator Regan and Vice President Harris have said needs to be strengthened, to address lead problems like those experienced in Flint, Benton Harbor and many other cities and small towns in Michigan and across the country.

## III. Conservation

The 2023 Farm Bill has an opportunity to break significant ground on the pathways for regenerative agriculture. Over the last two years, NRDC interviewed over 100 regenerative farmers in 47 states. These interviews revealed a deep interest in the pathways for regenerative agriculture and a foundational premise, that Regenerative Agriculture is a pathway to economic independence, and for agricultural practices in harmony with the earth. The Farm Bill represents a critical tool to curb climate, promote adaptation, and empower farmers.


A. Permanent Extension of the Pandemic Cover Crop Program (FCIP)

Cover crops are one regenerative practice that offers a multitude of benefits, including helping farmers maintain productivity in the face of climate change. Recognizing these benefits, for the last two years, the Biden Administration has offered farmers who plant cover crops a “good steward” incentive through their federal crop insurance. In the first year of the program, 12 million acres participated, including 350,000 acres in Michigan. Congress should expand on this important program and authorize a permanent incentive for farmers who use cover crops and build soil health. A permanent program would not only be a cost-effective way to encourage farmers to adopt risk-mitigating practices like cover crops, it would also create certainty for farmers that they can factor into their decisions when deciding whether they can afford to buy cover crop seed.

Michigan, in particular, has a tremendous opportunity to benefit from a permanent cover crop incentive program. Between the 2012 and 2017 Agricultural census, the state increased its cover crop acreage by over 54%, demonstrating an enormous leap in popularity of the practice. These gains are before the recent national cover crop incentive rolled out. Yet, as of 2017, only 8% of Michigan’s cropland acreage utilized cover crops, suggesting there is still great potential for cover crops to grow across the state, if the right incentives are in place.

B. Extend and Expand the Soil Health Demonstration Trial

The 2018 Farm Bill created a visionary program operated by the Natural Resources Conservation Service to test the implementation and adoption of soil health practices. These trials, across the nation have led to innovative projects empowering farmers to link soil health outcomes with practices they have employed. In Michigan, these trials have meant real on the ground benefits. The program should be made permanent and expanded to allow more farmers and more regions to benefit from innovations in advancing soil health.

C. Build Agroforestry Capacity

USDA needs clearer and more direct authorities in agroforestry, a form of regenerative agriculture rooted in traditional Indigenous land management. These authorities are critical to help rebuild riparian forest buffers; incorporate trees into livestock pastures; and support alley cropping, forest farming, and windbreaks. USDA has several tools to work with, including the National Agroforestry Center, the USDA Strategic Plan in agroforestry, and the authorities in both EQIP and within the State and Private Forestry program. However, USDA’s authorities for the Forest Service and the Natural Resource Conversation Service in agroforestry are limited and lack a holistic and consistent implementation within USDA. Congress should guide USDA to scale these capacities to support farmers and ranchers who wish to invest in regenerative agroforestry.

IV. Food Waste

In the 2023 Farm Bill development process, we urge Senator Stabenow to utilize our newly released report, “Opportunities to Reduce Food Waste in the 2023 Farm Bill,” that outlines 22

4 The Pandemic Cover Crop Program is modeled on state-based programs in Iowa, Illinois, and Indiana and Wisconsin.
5 The Soil Health Demonstration Trial has supported numerous awards directly benefiting Michigan, including two 2019 awards for Brookside Laboratories, and the National Fish and Wildlife Foundation. A 2020 award to Michigan State, and a 2021 award to the Nature Conservancy.
specific recommendations for Congress to take action to reduce food waste in the 2023 Farm Bill. Given the bipartisan support for measures to reduce food waste and demonstrated successes from the food waste measures in the previous Farm Bill, the 2023 Farm Bill provides an exciting opportunity to invest in food waste reduction efforts for greater social, economic, and environmental benefits. Most of the recommendations would have a direct impact on food waste at the state and local level, and the state and local governments’ ability to address food waste. A couple examples of recommendations that would better enable states like Michigan to address food waste include:

A. Provide Grants and Loans for Organic Waste Processing Infrastructure

In Michigan, the current lack of adequate infrastructure and services makes recycling of organic material a challenge. Only one (1) percent of organics processed in 2018 was food waste, and only ten of the 109 reporting composting facilities reported accepting any food waste. In order to keep organic waste out of landfills and reduce impacts on the climate, environment and health, investment is needed to help communities develop their organic waste processing capabilities. In addition, according to an EPA report, composting creates twice as many jobs as landfills. In the next farm bill, Congress should amend the Community Compost and Food Waste Reduction Project program to increase the total and per project funding available, reduce or eliminate the matching requirement, and expand the list of eligible entities who may apply for grant funding to also include state governments, as well as nongovernmental organizations and community groups that work with partners in rural locations or across regions. In addition, Congress should increase funding for the Solid Waste Management Grant (SWMG) program and the Water and Waste Disposal Loans and Grant program, continue to prioritize projects in which the implementing agencies prioritize food waste reduction, and consider extending the SWMG program to two years. Congress should also create funding streams along the lines envisioned in the COMPOST Act of 2021 and Zero Food Waste Act of 2021 to support new compost and anaerobic digestion infrastructure.

B. Implement a Certification Program for Businesses

Nationally, consumer facing businesses generate about 28% of food waste. A certification program that focuses on food waste would help consumers connect with businesses practicing good food waste reduction strategies. For example, in Detroit partners are piloting the PLEDGE on Food Waste certification with 30 area restaurants. The next farm bill can support local organizations and businesses in Detroit by creating a food waste reduction certification program to prevent or otherwise reduce food waste from consumer facing businesses under the Miscellaneous Title or a new Food Waste Reduction Title. The certification program can be administered by the Food Loss and Waste Reduction Liaison within the USDA, or by EPA, or by the two agencies jointly, building on their joint United States Food Loss and Waste 2030 Champions program.

C. Support Compost End Markets

Creating end markets for compost products will support increased composting, and by giving compost facilities a market to sell compost, the facilities may be able to reduce their tipping fees and draw more food waste generators to compost rather than landfill their waste. In turn, this will make composting a more viable and less expensive option than throwing organic waste materials in a landfill. Farmers in Michigan and beyond can also benefit from compost end markets as they
can use the soil amendment products derived from composting or anaerobic digestion (compost products) to improve the quality of their soil. In order to bolster state and local efforts to realize the social and environmental benefits of composting, Congress should create a crop insurance premium incentive program that pays farmers a per acre bonus for applying compost products to their fields before planting, modeled after the Pandemic Cover Crop Program (PCCP). Congress also should increase federal procurement of compost products containing recycled organic waste materials, by requiring federal agencies to prioritize purchasing of compost made from recycled organic waste materials when purchasing landscaping services.

Through NRDC’s Food Matters Regional Initiative, we have worked with partners in Detroit to reduce wasted food and support state and local policy efforts, including engagement on the Detroit Climate Action Plan process. Recognizing the climate impacts of food waste, we have worked with partners to bring food waste reduction priorities to the Michigan Healthy Climate Plan process as well. As a result, the Plan includes a commitment to cut food loss and waste in half by 2030 and to increase the state recycling rate to 45%, highlighting food waste reduction as a priority to achieving that goal. The recommendations in the Farm Bill report, if implemented, would support Michigan’s efforts to reduce wasted food, and all the environmental consequences associated, to help ensure food feeds people first, and any remaining food scraps are composted.

V. Organic / Nutrition

Most people buy organic because they want to eat healthier. But the health benefits of organic agriculture extend far beyond individual dinner plates. Organic farmers produce healthy food without toxic pesticides and use climate-friendly practices that lower greenhouse gas emissions and boost resiliency. Local and regional food producers—including areas where organic farming is highly concentrated—can also provide critical economic stability in rural communities. The 2023 Farm Bill offers an opportunity to continue long-standing support of organic farmers and ranchers in Michigan and throughout the country.

A. Adoption of new procurement priorities for the USDA Farm to School program

California launched a new Farm to School program in 2021. It dispersed $8.5M in grants during its first year and is poised to spend up to $30M this year to support local school food procurement. Like all farm to school programs, including those in Michigan – California’s seeks to improve the health and well-being of its most vulnerable children, while creating much-needed stable markets for the state’s smaller scale farmers and ranchers. However, California’s approach is unique because it commits to giving school districts extra resources when they purchase from local growers that are using organic and other climate-smart systems and practices. In the next Farm Bill, the federal Farm to School program should adopt California’s approach and offer schools around the country who prioritize climate-smart organic procurement larger grants.

B. Authorize and Fund New Federal Organic & Regenerative Transition Programs

To encourage more producers to pursue organic agriculture and realize the full potential of its climate, health, biodiversity and other benefits, the next Farm Bill also needs to continue to prioritize well-funded transition programs for organic farmers. It will be especially important to provide producer grants and expanded region-specific technical assistance. Senator Stabenow recognized the importance of supporting farmers through the transition process during the 2018 Farm Bill, which included several programs that ease the path forward for organic producers.
To expand upon that work, the upcoming Farm Bill should establish a new organic transition program targeted specially to underserved farmers and ranchers – including producers of color – in Michigan and beyond who face the highest hurdle of uncertainty during the three-year organic certification process. Organic farmers are mandated by federal law to rely on practices that improve soil health, reduce reliance on harmful, fossil-fuel based pesticides and fertilizers, foster biodiversity and more. Yet, the organic transition process comes with a significant learning curve and financial risk because farmers are required to invest in organic-compliant practices but are not able to market their products as organic. Given that small scale farmers, and especially farmers of color, often operate on thin margins, this new program would serve to level the playing field and empower more producers with essential support that brings organic within closer reach.

C. Increase Funding for Existing Organic Programs
Increase funding for existing organic programs, especially those that focus on cost-share, research, and the provision of technical assistance will help make healthy, locally grown and climate-smart food accessible to more Michigan families and around the country. These include the Organic Agriculture Research and Extension Initiative (OREI), the Organic Certification Cost Share Program (OCCSP), Organic Transitions Program (ORG), and others like the Sustainable Agriculture Research and Education (SARE) program that serve the needs of both organic and regenerative producers.

Conclusion
Our current food system leaves farms, rural America, farmers and ranchers vulnerable to massive losses related to climate change and ecosystem collapse. With targeted investments, and policy changes we can address the health of our air, water and food, the health of food workers and the public; access to healthy, affordable and culturally appropriate food, racial inequity, and pulls wealth out of local communities.

But it doesn’t have to be this way. The 2023 Farm Bill offers the opportunity to scale up investments in: the clean energy economy in rural America which would bring more job opportunities to rural communities; climate-smart agriculture and forestry which would begin to tackle the emissions from the agricultural sector; fix failing rural infrastructure and abatement of lead in our water pipes which would ensure people across the state and country would have reliable access to safe drinking water or sanitation, especially in lower-income rural areas. While we have the opportunity, Congress should take the most aggressive steps possible to address these issues through the Farm Bill.