Conservation Practices from Farms to Forests and Wetlands

Wednesday, June 21, 2023

Materials will be available at:
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- Articles and podcasts
- Climate Change Solutions newsletter special editions
- Farm Bill hearing tracker
- Legislative side-by-side-by-sides

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Every Other Wednesday

The Process and Path Forward for Passing a Bipartisan Farm Bill | Recording Available

Climate, Energy, and Economic Win-Wins in the Farm Bill | Recording Available

Unlocking Rural Economies: Farm Bill Investments in Rural America | Recording Available

The Future of Forestry in the Farm Bill | Recording Available

Conservation Practices from Farms to Forests and Wetlands | June 21, 2:00-3:30 PM EDT
Farm Bill Conservation Programs

Samantha Levy, Conservation and Climate Policy Manager
EESI Briefing, Russell 188
June 21st, 2023, 1:30pm
American Farmland Trust’s Mission: to Save the Land that Sustains us

Keeping Farmers on the Land
Promoting Sound Farming Practices
Protecting Farmland

No Farms No Food®
American Farmland Trust
Soil health is the ability of soil to function as a living ecosystem that supports plants, animals, and humans.
ADOPTING SOIL HEALTH PRACTICES CAN INCREASE YIELD AND REDUCE INPUT COSTS, LEADING TO A RETURN ON INVESTMENT OF $3 for every $1 spent.

UNDER SEVERE DROUGHT CONDITIONS

1% increase in soil organic matter

BOOSTS YIELDS BY 33 BUSHELS PER ACRE

Improved Soil Health Will Save Taxpayer Dollars

Only 6% of Eligible Acres were Planted with Cover Crops in 2017

Source: USDA 2017 Census of Agriculture
Barriers to Adopting Conservation Practices

- Cost
- Risk
- Information
- Cultural
- Land Tenure
Conservation Programs Provide a Solid Foundation to Build on
Title II: The "Big Five" Conservation Programs

Conservation Reserve Program (CRP) – Rental payments for temporarily taking land out of production

Environmental Quality Incentives Program (EQIP) – Generally 1 to 3-year contracts to implement conservation practices

Conservation Stewardship Program (CSP) – Up to 5-year contracts to maintain whole-farm conservation practices

Agricultural Conservation Easement Program (ACEP) – Permanent conservation easements to protect farms and wetlands from development

Regional Conservation Partnership Program (RCPP) – Conservation projects on a watershed or regional scale

Relative Funding for 10-year Baseline

CRP 34%
ACEP 7%
EQIP 31%
CSP 23%
RCPP 5%

Source: National Sustainable Agriculture Coalition
Strengths and Areas for Improvement

Locally-implemented with well-vetted science-based standards

Highly oversubscribed, lengthy application processes, gaps in support, equity challenges, limited room for innovation

AFT’s Conservation Goals for the Farm Bill

- Increase Long-Term Adoption of Soil Health and Climate Smart Practices
- Make NRCS Programs more Accessible
- Bolster Farmer to Farmer Learning Networks
❑ Provide Sustainably Increased Funding to meet Farmer Demand for Conservation Financial and Technical Assistance

❑ Streamline Program Implementation
Increase Support for Farmer-to-Farmer Learning
Create a Farm Bill Program that Provides Match to Build up State and Tribal Soil Health Programs
Create an Office of Small Farms at USDA
American Farmland Trust

Building Resilience in a Changing World
AFT's 2023 Farm Bill Recommendations

American Farmland Trust (AFT) has a vision for the future of agriculture: our best agricultural land remains available for production; farmers and ranchers operate thriving businesses that support vibrant rural communities; our food system is resilient to shocks and produce abundant, healthy, affordable food; agriculture reflects the diversity of our nation, with greater numbers of young, beginning, and historically marginalized farmers and producers are recognized and rewarded not just for the food, fiber, and fuel they produce, but also for the environmental benefits they provide. This future is possible, but there are many challenges to overcome.

Farm land loss threatens the future of American agriculture. From 2006-2016, 11 million acres of agricultural land were paved over, fragmented, or converted to use that jeopardizes agriculture. New AFT research indicates that the U.S. is projected to lose an additional 18.4 million acres by 2040. Once this finite resource is developed, it never returns to farming.

With agricultural land at record prices—and steep competition from developers, investors, and established farmers—many young, beginning, and historically marginalized producers struggle with land access, whether purchased or rented. At the same time, many senior farmers and farmland owners have no successors. Some may turn to retire and sell their farms; others will pass land to heirs who are not interested in farming in order to avoid tax liabilities. With the current generation of farmers nearing retirement, our food system depends upon a new generation taking the reins.

Many farmers and ranchers, especially small and mid-sized, struggle with profitability. With thin margins, supply chains, and pandemic-related disruptions, and other issues, farmers must continually fine-tune their business models to develop resilient operations.

Climate change is bringing higher temperatures, unpredictable seasons, flooding, drought, and wildfires, and is causing farmland loss due to soil erosion and other factors. This is making the weather-dependent business of farming more difficult, and is expected to worsen without immediate action to reduce emissions and sequester carbon. Currently, many conservation practices needed to address climate change, while also improving water quality and soil health, are only used on a small portion of farms. For example, only 5% of cropland acres were planted with cover crops in 2017.

The 2023 Farm Bill is our best chance to help more farmers and ranchers permanently protect their land, establish secure land tenure, create viable businesses, and adopt climate-smart practices. AFT has decades of experience shaping federal policy, and the following Farm Bill recommendations—developed with input from over 300 farmers, ranchers, non-profit leaders, and other stakeholders through 16 workshops held across the nation—will help us realize the vision of a resilient, just, and sustainable future.

https://farmland.org/2023-farm-bill/
The Multiple Benefits of Floodplain Easements

EESI Briefing, June 20, 2023
Eileen Shader, Director River Restoration
American Rivers restores damaged rivers, protects wild rivers, and conserves clean water for people and nature.
The Multiple Benefits of Floodplain Easements

www.americanrivers.org/floodplaineasements
Dogtooth Bend

Timeline:
1993: Levee breach
2011: Levee breach
2015/16: Levee breach
2016: USACE decides not to repair the levee
Limited Options for Farmers dealing with flood-prone land:

- Wetland Reserve Program?
- Floodplain Easements?
In the Upper Mississippi River Basin

Over the last decade

2,512

Agricultural disasters due to flooding

1

Number of times Congress has funded Floodplain Easements
Number of Floodplain Easements Enrolled
Number of Agricultural Disasters due to Flooding

- 2012: 500
- 2013: 200
- 2014: 300
- 2015: 1300
- 2016: 700
- 2017: 600
- 2018: 700
- 2019: 2400
- 2020: 500
- 2021: 600
## Farmer Requests for Floodplain Easements Greatly Exceed Awards in the Upper Mississippi River Basin

<table>
<thead>
<tr>
<th>State</th>
<th>Total Applicants</th>
<th>Total Offered Acres</th>
<th>Awarded Applicants</th>
<th>Awarded Acres</th>
</tr>
</thead>
<tbody>
<tr>
<td>Iowa</td>
<td>1,127</td>
<td>115,635</td>
<td>76</td>
<td>9,101</td>
</tr>
<tr>
<td>Illinois</td>
<td>362</td>
<td>10,829</td>
<td>30</td>
<td>4,685</td>
</tr>
<tr>
<td>Minnesota</td>
<td>44</td>
<td>3,376</td>
<td>7</td>
<td>4,846</td>
</tr>
<tr>
<td>Missouri</td>
<td>325</td>
<td>45,010</td>
<td>45</td>
<td>6,717</td>
</tr>
<tr>
<td>Wisconsin</td>
<td>352</td>
<td>24,193</td>
<td>54</td>
<td>6,365</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>2,210</strong></td>
<td><strong>199,043</strong></td>
<td><strong>212</strong></td>
<td><strong>31,714</strong></td>
</tr>
</tbody>
</table>

* Data provided by NRCS from each state.

[www.americanrivers.org/floodplaineasements](http://www.americanrivers.org/floodplaineasements)
Flooding is more frequent and more expensive.
Upper Mississippi River agricultural producers are particularly hard hit by flooding

American Rivers Study

**TABLE 2**: The UMRB sees more damages from flooding and excess rain/moisture than most other states for farmers enrolled in the Federal Crop Insurance program (USDA Risk Management Agency 2022).

<table>
<thead>
<tr>
<th>10-Year Total Acres Damaged by Flood and Excess Rain/Moisture (millions of acres.)</th>
<th>10-Year Total Flood &amp; Excess Rain/Moisture Damage Subsidies (Indemnities minus Producer Paid Premium). Adjusted for Inflation.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. North Dakota</td>
<td>16.6</td>
</tr>
<tr>
<td>2. Minnesota</td>
<td>16.2</td>
</tr>
<tr>
<td>3. Illinois</td>
<td>16.6</td>
</tr>
<tr>
<td>4. Missouri</td>
<td>13.8</td>
</tr>
<tr>
<td>5. Iowa</td>
<td>12.2</td>
</tr>
<tr>
<td>...</td>
<td>...</td>
</tr>
<tr>
<td>15. Wisconsin</td>
<td>4.1</td>
</tr>
</tbody>
</table>
Flooding is costing Taxpayers Billions

Flooding is more widespread than drought

<table>
<thead>
<tr>
<th>Cause of Loss</th>
<th>Total Indemnities (CPI-Adjusted)</th>
<th>Subsidy (CPI-Adjusted)</th>
<th>Cumulative Acres Impacted</th>
</tr>
</thead>
<tbody>
<tr>
<td>10-Year Total: Flood</td>
<td>$8 Billion</td>
<td>$7 Billion</td>
<td>61.6 Million</td>
</tr>
<tr>
<td>10-Year Total: Drought</td>
<td>$10 Billion</td>
<td>$9 Billion</td>
<td>50.6 Million</td>
</tr>
</tbody>
</table>
It’s not just about avoiding costs

Conservation easements on floodplains provide a lot of other benefits
Healthy Floodplains Increase Flood Water Storage

Wetlands can store 1 to 1.5 million gallons of water per acre

That’s the equivalent of a football field-sized swimming pool, 10-feet deep
Healthy Floodplains Help Us Meet Nutrient Pollution Reduction Goals

Conservation Practices in the Iowa Nutrient Reduction Strategy

https://www.mdpi.com/2073-4441/12/10/2762
Healthy Floodplains Will Protect Species Most at Risk of Extinction

Notice the ribbons of red… All major US Rivers rank among the highest concentrations of imperiled biodiversity

https://www.nytimes.com/interactive/2022/03/03/climate/biodiversity-map.html
Recommendations to enhance the Floodplain Easement Program

Conservation goals outlined in the EWPP-FPE are good, in general.

- Move into Agricultural Conservation Easement Program and fund annually
- Annual enrollment opportunity for floodplain easements
- Prioritize repetitive loss properties
Life Depends on Rivers

Eileen Shader, eshader@americanrivers.org
www.americanrivers.org/floodplaineasements
Conservation Practices in Farms and Agroecological Projects in Puerto Rico

Agro. Paola I. Bonilla Carrero, MSc

Hispanic Access Foundation
Sustainable Agriculture or Agroecology

- The integration of multiple disciplines and schools of thought
- Honoring ancestral and campesino knowledge
- Considers the elements of the farm as a unit with dynamically connected parts
- Prioritizes long-term economic viability, conservation, and social equity
- Food security ≠ food sovereignty
- Works with nature, not against it

La Colmena Brava. Model Huerto as part of the Josco Bravo Educational Project. Isabela, P.R. 2023
Examples of conservation practices in agroecological farming

- Mimics natural ecosystems: more diverse and resilient systems
- Integrations of local plant varieties and cover crops
- Less external inputs
- Increases the use of organic matter
- Adequate and sustainable water management
- Reintegration of livestock
- Adaptation to shifting weather patterns
Farms and agroecological projects in Puerto Rico
Finca el Timón, Lares, P.R.

- Reintegration of livestock - native breed **India Criolla**
  - can withstand temperature and consume native grasses
  - Dual purpose breeds: more efficient
- Cattle ploughing while fertilizing the soil
- Animal husbandry aids in the composting process
- Grazing rotations
- Conscious tree clearing
- Silvopasture
Finca Plenitud, Las Marias, P.R.

- Educational non-profit project
- Permaculture focused
- Passive water management systems: contour farming
- Terraces following an agroforestry approach
- Dissipate aggressive irrigation and protection of topsoil
- Reduces runoff and flooding

plenitudpr. Maximizando el uso del agua. Instagram. 2023
Farms and USDA Conservation Programs
Las Finqueras, Corp., Río Grande, P.R.

- Puerto Rican agribusiness dedicated to raising beef cattle
- Founded by women
- High quality meat with consideration of animal well-being and natural resources

USDA-NRCS Conservation Programs:

- Tree-Shrub Site Preparation for shade
- Prescribed Grazing
- Forage and Biomass Planting to improve pastures the current one has low nutritional value and palatability

Among others

Senepol breed is tolerant to heat. Río Grande, P.R. 2023
Proyecto Agroecológico El Josco Bravo, Toa Alta, P.R.

- Agroecological education and farming project
- Crops, meat, and milk production and sustainable water management systems
- Agroecological promoters course over the last 10 years
- Produced over 21,000 lb of food in 2021

USDA NRCS Conservation Programs and Classification:

- Primer Farm Land (less than 5% of the world)
- High Tunnel Initiative
  - Impermeable structure
  - Protects from inclement weather
  - Offers stability to the crops
  - Allows crop varieties during different seasons
Challenges in agroecological farming applicability

- Public policy
- Applicability in universities
- Distribution and marketing
- Consumption of processed food vs fresh food
- A need to promote seasonal consumption
- Subsidizing farmers

In Puerto Rico:

- Land Access
  - Autoridad de Tierras
  - Displacement and gentrification
- Austerity measures
  - Jones Act
• Conservation practices in farming include many different people and needs
• Producers and farmers need educational and technical assistance
• Make conservation programs more accessible to all type of farmers
• Prioritize small-scale regional production over mass production and importation

Agroecology is not an idea or a concept, it is an applicable and effective practice to feed our communities and protect our natural resources.
USDA Conservation and Tribal Engagement
Tribal Perspective

American Indian Historical Perspective

1. Manifest Destiny
2. Discovery, Conquest and Treaty-Making (1532-1828)
3. Removal and Relocation (1828-1887)
4. Allotment and Assimilation (1887-1928)
5. Reorganization and Self-Government (1928-1945)
6. Termination (1945-1961)
7. Self-Determination (1961-Present)

Federal Responsibility and Power over Indian Affairs

1. Roots of Federal Responsibility
2. The Sources of Federal Power
# The Process - Our approach to Tribal Conservation discussion

<table>
<thead>
<tr>
<th>Phase 1</th>
<th>Phase 2</th>
<th>Phase 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>1:1 Engagement</td>
<td>Comments &amp; Feedback</td>
<td>Next Steps</td>
</tr>
</tbody>
</table>

Tribes are key to the success of Conservation efforts in the United States.

Initiate a conversation among a small group of Tribal Leaders & Tribal Technical Experts

Listen

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Initiate a conversation among a small group of Tribal Leaders & Tribal Technical Experts

Listen
Tribal Communities to discuss the following topics:

- To learn the purpose and process of Public Lands Conservation efforts

- To learn from one another and learn from Tribes what they see as opportunities to collaborate on protecting lands and other natural resources that are important to Tribes and to NGO’s

- To emphasize the significance of Tribal involvement going forward in Conservation efforts and convey ways Tribes can be involved and stay connected

- Strengthen tribal engagement, consultation, capacity building, implementation, and process to ensure Conservation efforts are responsive and engaging with Tribal Communities.

- What should Tribes expect to be engaged with NGO’s, Conservation community and Advocacy groups in helping shape the planning process that will be used to develop the management plans for Conservation efforts

- Tribes need assistance in Funding, Technical Assistance, Training and Capacity Building to address all of the asks of NGO’s conservation goals and efforts
“Our communities deserve fresh air to breathe, clean water to drink, and a livable planet, but right now inaction on climate change is putting everything at risk, particularly in communities of color.”

“...It was definitely an honor to be representing Mojave in that moment, but his knowledge of Avi Kwa Ame and talking about it as soon as he walked up… there was no need for reminder there, he knew exactly what was taking place,” he said on “ICT News with Aliyah Chavez.”

Avi Kwa Ame, also known colloquially as Spirit Mountain, is a 450,000-acre site about 80 miles south of Las Vegas located between Lake Mead National Recreation Area and the Nevada and California border.

Williams said Avi Kwa Ame is the place of the Mojave people’s creation and spiritual connection as well for the nine other Yuman-speaking tribes along the Colorado River, as well as the Hopi and Chemehuevi Paiute tribes.
Environmental Quality Incentives Program
The Environmental Quality Incentives Program (EQIP) is NRCS’ flagship conservation program that helps farmers, ranchers and forest landowners integrate conservation into working lands.

PROGRAM
Conservation Innovation Grants
Conservation Innovation Grants (CIG) is a competitive program that supports the development of new tools, approaches, practices, and technologies to further natural resource conservation on private lands.

PROGRAM
Conservation Stewardship Program
The Conservation Stewardship Program (CSP) helps you build on your existing conservation efforts while strengthening your operation.
NRCS and American Indians share a common interest in conserving and managing the natural resources of our earth. To help meet our goal of providing high quality conservation products and services to American Indian operators, offices are located on both the Southern Ute Indian Tribe and the Ute Mountain Ute Tribe located in southwestern Colorado. NRCS is committed to providing assistance to American Indian producers and tribes in planning for and managing natural resources.

The Agriculture Improvement Act of 2018 (2018 Farm Bill) includes provisions that address the unique circumstances and concerns of socially disadvantaged, beginning, limited resource, and veteran farmers and ranchers (“historically underserved producers”). The 2018 Farm Bill provides for voluntary participation, offers incentives, and focuses on equity in accessing U.S. Department of Agriculture (USDA) programs and services.

USDA and Cheyenne River Sioux Tribe Enters Historic Conservation Reserve Enhancement Program Agreement to Support Working Lands Conservation

**CREP Provides Critical Support to Landowners for Sound Conservation Practices**

**HURON, S.D., April 14, 2023**— The Cheyenne River Sioux Tribe is partnering with the U.S. Department of Agriculture (USDA) to help conserve, maintain and improve grassland productivity, reduce soil erosion, and enhance wildlife habitat through the Conservation Reserve Enhancement Program (CREP). It is one of three Tribal Nations in the Great Plains to enter CREP agreements with USDA’s Farm Service Agency (FSA) to enroll eligible grassland, pastureland, and other agricultural lands within the boundaries of their reservations in this conservation program. The Oglala and Rosebud Sioux Tribes finalized their CREP agreements last November.
“We are proud to have the Cheyenne River Sioux Tribe as part of this historic milestone for USDA, helping us to deploy climate-smart agriculture and conservation in the Great Plains,” said Steve Dick, FSA State Executive Director in South Dakota. “This agreement highlights the vital contribution Native communities make to our country’s agriculture and conservation efforts.” This partnership with the Cheyenne River Sioux Tribe, along with those with the Oglala and Rosebud Sioux Tribes, are the first-ever CREP agreements in partnership with Tribal Nations—reflecting priorities and goals of USDA to broaden the scope and reach of its voluntary, incentive-based conservation programs to engage underserved communities.
What did you think of the briefing?

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