

The Conservation Windfall: How to Leverage It for Your Project

2023 Leadership for Midwestern Watersheds Conference

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The Nature Conservancy



The Nature
Conservancy

The Carrot and The Stick (Ver. 1.0)

Incentive Programs

- Farm Bill Programs
 - Easement – CRP, WRP
 - Working Lands – EQIP, CSP
- State Incentives
- Local Programs – 319/205J Grants, Foundations, NGOs
- Commodity Groups and Trade Associations
- Environmental Organizations

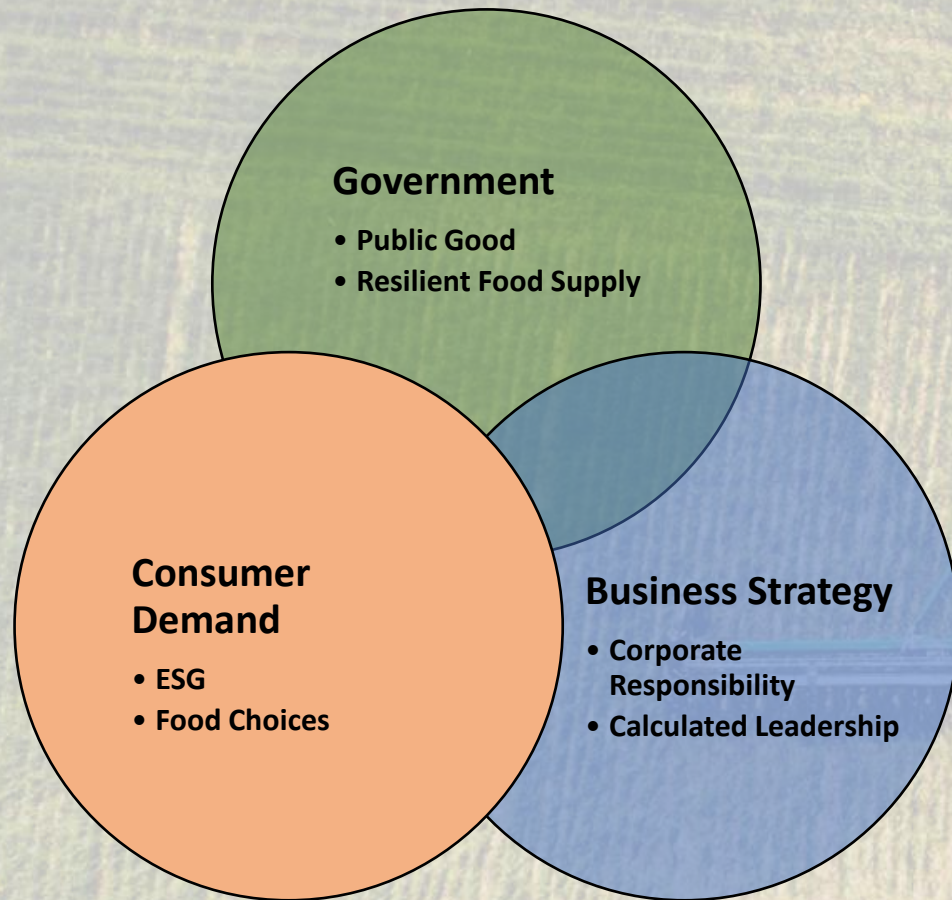
(Semi-) Regulation

- Highly Erodible Land Provisions
- Sodbuster, Swampbuster
- Gulf Hypoxia Task Force
- Environmental Regulations

An aerial photograph of a green tractor pulling a large, wide agricultural implement, possibly a harrow or a similar soil preparation machine, through a field of tall, green grass. The tractor is positioned in the center of the frame, moving away from the viewer. The field is densely packed with grass, and the overall scene is captured from a high angle, showing the tractor's path and the rows of grass it is traversing.

Who is engaged in a public-private partnership in their watershed?

Public-Private Partnerships



What Can Be Accomplished in Partnership?

- Efficiencies
- Information and Data Exchange
- Reciprocal Trainings
- Opportunity Awareness
- Forecasting
- Competitive Advantage
- Decision Support – Tools (Truterra)
- Risk Management and Resilience
- Sustainability
(Environmental and Economic)
- Generational Legacy



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DANONE



JOHN DEERE

Sound

WINFIELD UNITED



CORTEVA



FBN



Microsoft

Cargill



General Mills



Trimble

Nutrien



ADM

LA CROSSE SEED

FARMOBILE



GROWERS EDGE

COSTCO WHOLESALE



PEPSICO



BECK'S



Partnerships for Climate-Smart Commodities

US Secretary of Agriculture Tom Vilsack announced \$2.8B in funding for 70 climate-smart projects across the United States, to be spent over 5 years. This is an unprecedented investment in conservation and agriculture innovation. The projects will “Provide technical and financial assistance to producers to implement climate-smart production practices on a voluntary basis on working lands” and “Pilot innovative and cost-effective methods for quantification, monitoring, reporting and verification of greenhouse gas benefits”. It is expected these projects will reach 50,000 farms and 20-25M acres of US farmland. Partners on these projects include over 50 academic institutions, highlighting the science and research aspects.

Project Leads?

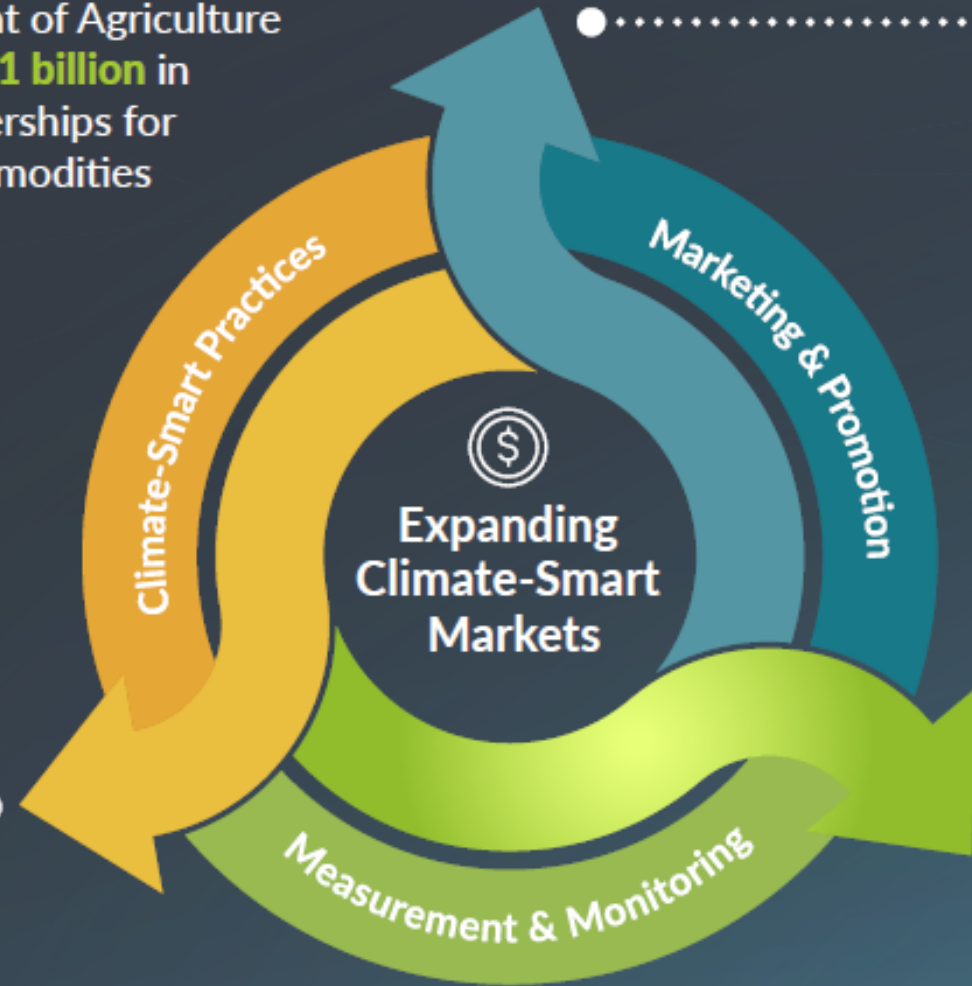
Project Partners?

EXPANDING MARKETS FOR CLIMATE-SMART COMMODITIES

The U.S. Department of Agriculture is investing over **\$3.1 billion** in **141 selected** Partnerships for Climate-Smart Commodities projects.



Adoption of climate smart practices allows farmers access to new markets for climate smart commodities. By providing support for climate smart practice implementation, USDA can help farmers absorb risk associated with practices that often have high up front cost.



Marketing and promotion activities that will build and expand markets for the commodities being produced using climate-smart practices with premiums going to producers.



Greenhouse Gas Measurement, Monitoring, Reporting and Verification (MMRV) is critical to build consumer trust and build markets. Projects will test innovative MMRV systems for feasibility, affordability and low transaction costs.

PROJECTS BY COMMODITY



PROPOSAL INVESTMENTS

Proposals for the **141** tentatively selected projects include plans to match

An average of **50%** of the federal investment with non-federal funds.

PROJECTS BY AWARD SIZE*

71 Under \$5M

22 \$5-20M

25 \$25M-45M

09 \$50M-65M

14 \$70M-95M



~100 universities, including more than 30 **minority-serving institutions**, engaged & helping advance projects.

20+ **tribes and tribal groups** engaged and leading on many projects across a wide geography.



60,000 farms reached, encompassing **25M** **acres of working land** engaged in climate-smart production practices.



Hundreds of expanded markets and revenue streams for producers and commodities across agriculture ranging from **traditional corn** to **specialty crops**.



More than **60 million metric tons** of carbon dioxide equivalent sequestered over the lives of the projects. This is equivalent to removing more than **12 million gasoline-powered** passenger vehicles from the road for one year.

53

States & Territories

105

Projects

92

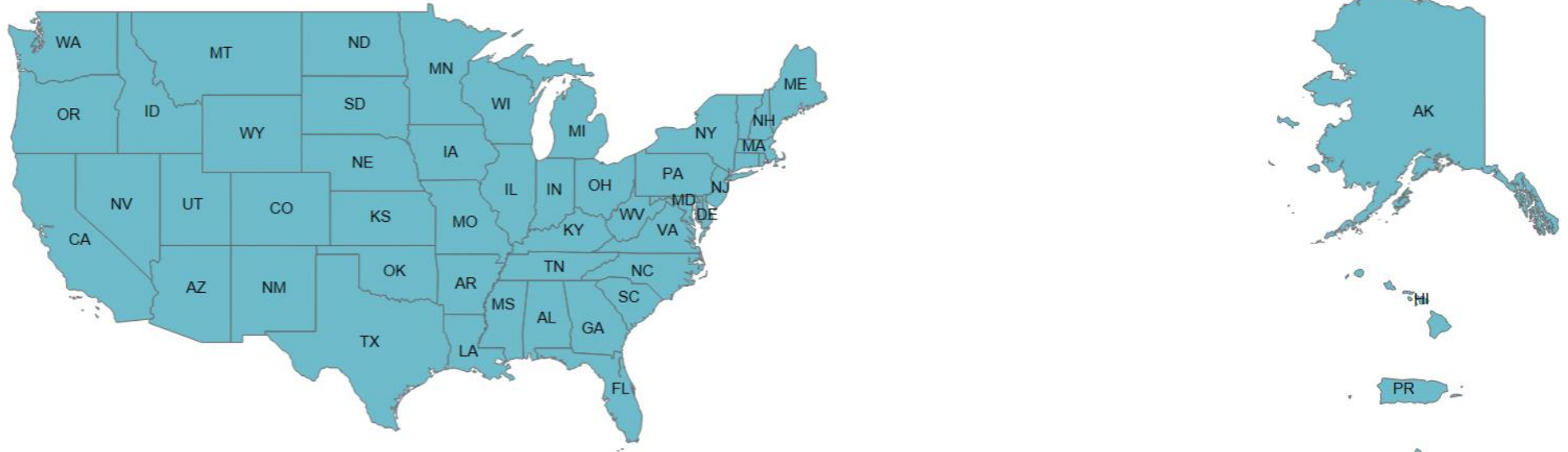
Major Commodities

178

Practices

Click on a state to filter the map or use drop-down menu

(All) ▾



COMMODITY |

Search commodity lists from this filter.

PRACTICE |

Search practice lists from this filter.

LEAD PARTNER |

Click on Lead Partner to navigate to the project details.



[Download PDF](#)

The Nature Conservancy (agroforestry)

The Nature Conservancy (Agroforestry)

[Link to Project Enrollment Opportunities: Coming Soon](#)

Short Summary: The project expands markets for climate-smart nuts, berries, beef, fruit trees and other specialty/forest products in AL, CT, DE, GA, HI, IL, IN, IA, KS, KY, MA, MD, MI, MN, MS, MO, NJ, NY, NC, OH, OK, PA, RI, SC, TN, VT, VA, WV and WI, and supports farmers, and ranchers agroforestry implementation and monitoring of climate-smart practices.

Full Description:

Expanding Agroforestry Production and Markets

This project will build climate-smart markets and increase capital investments in tree planting that will increase the supply of agroforestry commodities utilizing a network of leaders in forestry. This will work directly with manufacturers and retailers to connect potential buyers with producers (including underserved producers). Project plans to provide 95 percent cost-share to participating underserved producers implementing climate-smart practices. Partners also aim to work with trade organization to develop certification standards for an "agroforestry-producers" label which will bring a price premium to producers. The project plans to utilize the USDA's COMET-Planner tool to estimate GHG reductions for the proposed agroforestry project. All data collected during the project are planned to be stored in Propagate's Overyield platform, providing producers and TSPs access to all data required for GHG benefit verification. Verra's Afforestation/Reforestation of Agricultural Lands methodology will also used for verification of GHG benefits for producers seeking to sell carbon credits on the voluntary market. The project aims to help negotiate contracts with commercial buyers for the harvested produce or timber and profit-sharing agreements with investors and producers and plans to work with trade organizations to develop certification standards for an "agroforestry-produced" label, for which consumers and manufacturers will be willing to pay a price premium. The project's qualification process plans to prioritize underserved and small producers and provide 95% cost-share for implementation for underserved producers.

Lead Partner: The Nature Conservancy

Other Major Partners: Propagate^{*,**}, Savanna Institute^{*}, Tuskegee University^{*}, University of MO Center for Agroforestry^{*}, VA Tech^{*}, Hawai'i 'Ulu Cooperative^{*}, Appalachian Sustainable Development^{*}, Canopy Farm Management, Cargill, Handsome Brook Farm^{*}, NY Tree Crop Alliance^{*}, Practical Farmers of IA^{*}, Resource Environmental Solutions, Sustainable Farming Association^{*}, Trees Forever^{*}, Trees for Graziers^{*}, University of Illinois, Association For Temperate Agroforestry, Osage Nation, Agroforestry Partners, Live Oak Bank, Walnut Level Capital, Yard Stick^{*}, Propagate, Working Trees^{*}, University of Hawaii, Cargill, Danone, Applegate, Epic Institute^{*}, General Mills, Current Cassis, Simple Mills, Hawaii Foodservice Alliance, 1890 Consortium, AgLaunch Early Adopter Network, Lincoln University, FarmRaise^{*}, University of Vermont - Extension^{*}, NY Tree Crop Alliance^{*}, Mānoa's Indigenous Cropping Systems Laboratory^{*}

Primary States Expected: AL, CT, DE, GA, HI, IL, IN, IA, KS, KY, MA, MD, MI, MN, MS, MO, NJ, NY, NC, OH, OK, PA, RI, SC, TN, VT, VA, WV, WI

Major Commodities: Nuts, Berries, Beef, Fruit Trees, Forest Products, Specialty Crops

Approximate Funding Ceiling: \$80,000,000

Approved Federal Funding: \$80,000,000

Non-Federal Match: \$2,917,531

Monitoring Highlights:

The project plans to utilize the USDA's COMET-Planner tool to estimate GHG reductions for the proposed agroforestry project. All data collected during the project are planned to be stored in Propagate's Overyield platform, providing producers and TSPs access to all data required for GHG benefit verification. Verra's Afforestation/Reforestation of Agricultural Lands methodology will also used for verification of GHG benefits for producers seeking to sell carbon credits on the voluntary market.

Marketing Highlights:

The project aims to help negotiate contracts with commercial buyers for the harvested produce or timber and profit-sharing agreements with investors and producers and plans to work with trade organizations to develop certification standards for an "agroforestry-produced" label, for which consumers and manufacturers will be willing to pay a price premium.

Equity Highlights:

The project's qualification process plans to prioritize underserved and small producers and provide 95% cost-share for implementation for underserved producers.

Available Practices: 311 Alley Cropping, 380 Windbreak/Shelterbelt Establishment and Renovation, 381 Silvopasture, 382 Fencing

Project managers, what is missing in this dashboard?
What do we need to know?

Top 10 **Producer** Benefits **According to USDA**

1. Additional and Expanded Markets for Climate-Smart Commodities
2. Increased Market Price Premiums and Profits
3. Incentives for Producing Climate-Smart Commodities
4. Assistance with Marketing Climate-Smart Commodities
5. Training & Technical Assistance on Climate-Smart Commodity Production & Practices
6. Cost Share and Incentives to Implement Climate-Smart Practices
7. More Productive Agricultural Land and Increased Yields
8. Lower Fertilizer and Other Input Costs
9. Increased Resilience to Climate and Weather Event Impacts
10. Understanding of Climate-Smart Benefits on Your Farm

An aerial photograph of a green tractor pulling a tillage implement, likely a moldboard plow or similar, through a field of tall, green crops. The tractor is moving away from the viewer, leaving a distinct track in the field. The overall scene is a top-down view of agricultural machinery in operation.

Big Picture: What do you all see as the major opportunities with these projects for your watershed and stakeholders?



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DANONE



JOHN DEERE

Sound

WINFIELD UNITED



CORTEVA



FBN



Microsoft

Cargill



General Mills



Trimble

Nutrien



ADM

LA CROSSE SEED

FARMOBILE



GROWERS EDGE

COSTCO WHOLESALE



PEPSICO



BECK'S



An aerial photograph of a green tractor pulling a large agricultural implement, likely a harrow or similar soil preparation machine, through a vast, green field. The tractor is positioned in the center of the frame, moving away from the viewer. The field is densely packed with crops, and the overall scene is captured from a high angle, showing the repetitive patterns of the machinery and the texture of the vegetation.

Do your farmer stakeholders work with any of these brands?

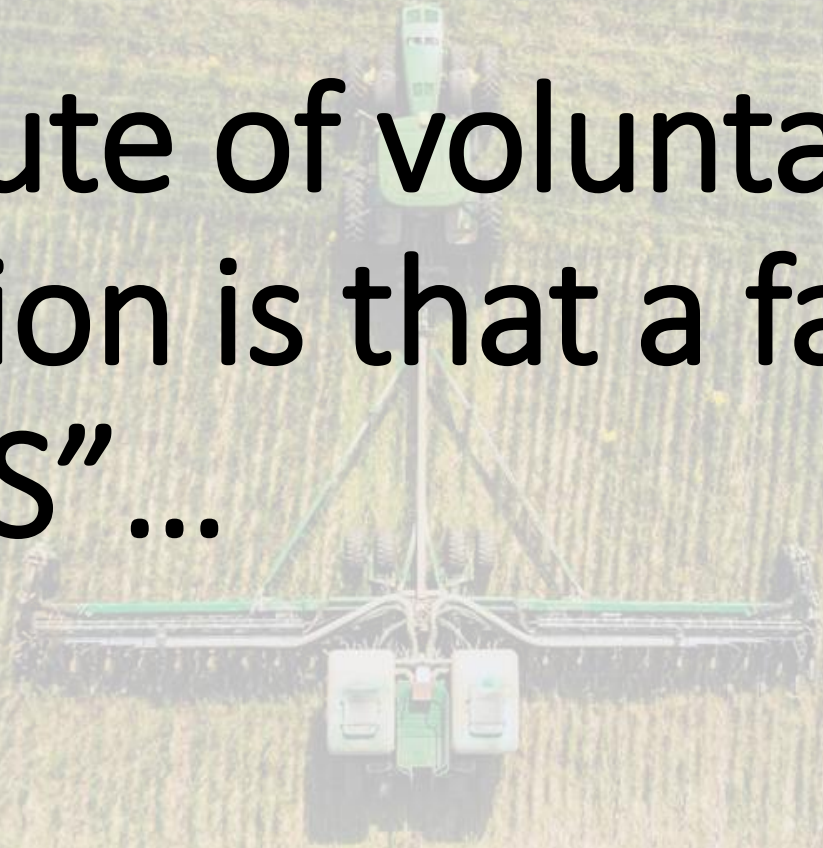
Climate Smart Commodity Project Challenges

An aerial photograph of a green combine harvester moving through a field of mature, golden-brown crops. The harvester is positioned in the center of the frame, moving away from the viewer. The field is divided into neat rows, and the overall scene is brightly lit, suggesting a clear day.

- Demand
- Competing Projects
- Administrative Burden

Other Challenges?

The absolute of voluntary conservation is that a farmer has to say “YES” ...





I see dollars going to waste...

- From the Mouths of Farmers

5 Year Scenarios – As I see it...

Best Case

- We exhaust \$3B in 5 years
- Previously unengaged supply chain is now bought in
- Projects incorporate **retention** strategies, rather than frantic recruitment to spend \$
- Meaningful gains are made and characterized by thorough evaluation and metrics

Worst Case

- We don't spend \$3B in 5 years, proving that a incentive overload does not solve our problems
- Farmers “take the money and run”
- Voluntary conservation now carries a black mark and we march further towards some form of regulation

What am I missing?



An aerial photograph of a green tractor pulling a large, wide agricultural implement, likely a harrow or similar soil preparation machine, through a vast, green field. The tractor is positioned in the upper center of the frame, moving away from the viewer. The implement behind it is long and narrow, with multiple rows of blades or rollers. The field is a uniform green color, suggesting a crop like corn or soybeans. The overall scene is captured from a high angle, looking down on the machinery and the field.

Blinded by frantic recruitment...

Why Retention Is Important

“If we can get a farmer to do this practice for 5-7 years, they will see the results and returns they need to do it in perpetuity.”

- **Retention** – Sustainability of Practice Adoption, ROI/Forecasting
- **Frequency** – Patterns of Adoption, Addresses Continuity and Consistency
- **Persistence** – Behavioral and Social Factors of Practice Adoption



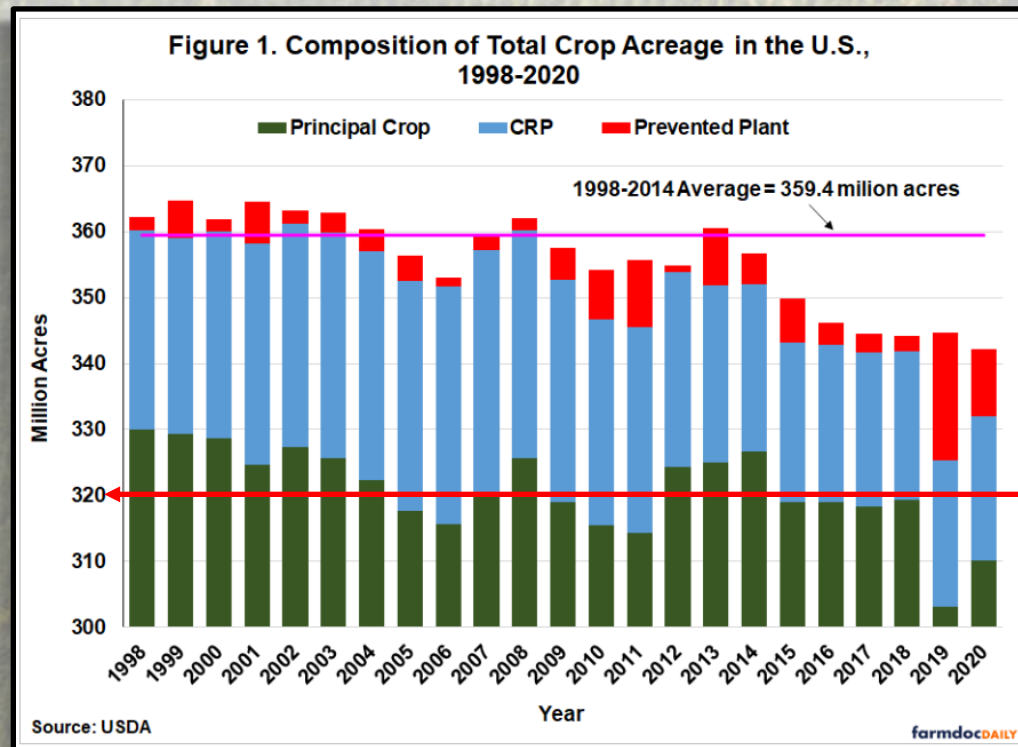
Who in the room can honestly say
they are focusing on retention?

How are you measuring retention?

Big Objectives

TNC 2030 Goal:

Enhance 50% of U.S. row crop acres with improved in-field and edge of field practices by 2030



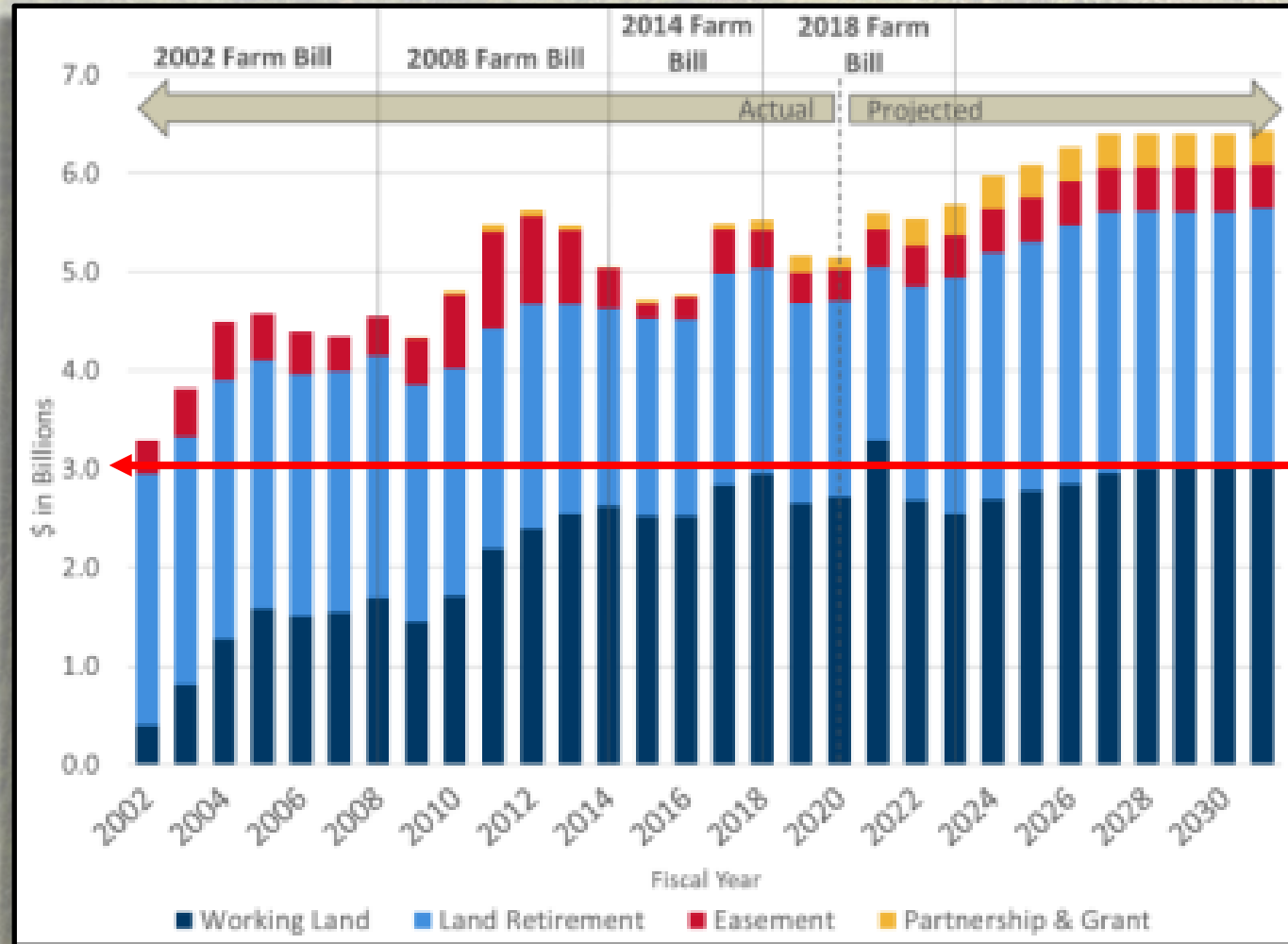
- Avg. **320M** US Crop Acres

- **83.5M** Acres of Soybeans (NASS 2023)

- **94.1M** Acres of Corn (NASS 2023)

177.6M Acres

Status Quo



*CRS Farm Bill Primer: Conservation Title (<https://crsreports.congress.gov/product/pdf/IF/IF12024>)

Unprecedented Funding

- **\$16.6 Billion** (*\$19.5 Billion*) – IRA Conservation Funding (*Expires FY 2031*)
 - \$8.45B EQIP
 - \$4.95B RCPP
 - \$3.25B CSP
- **\$3.1 Billion** – Partnerships for Climate-Smart Commodities (5 Year Timeframe)
 - On Average **60-75%** of Funds are Allocated to Implementation
 - **\$1.86B (60%)** - **\$2.325B (75%)**

\$40B

Status Quo +
Unprecedented

Scenario (Major) Assumptions

- *Management Scenario: Cover Crops (340) + Nutrient Management (590)*
 - *Cover Crop - Basic(340) - \$61.48 (Per NRCS 2023 Payment Schedule – Indiana)*
 - *Nutrient Management – Basic (590) - \$7.11 (Per NRCS 2023 Payment Schedule – Indiana)*
- *For this Scenario, Primary Focus is On EQIP*
- *Not All IRA Funding is Going to In-Field Practices*
- *Not All 70 Rd. 1 Climate-Smart Commodity Projects are for Row Crop (37 Projects Are, but funding levels are not proportionate)*
- *“US Row Crop Acres” (Calculated for 2023 Corn/Soy)*
- *Scenarios Focus on USDA Programs Only, Excluding State Programs, Corporate Partnerships, Other Initiatives, and Un-Subsidized Voluntary Adoption*
- *Everyone Adopts in Year 1, Retention Calculated at End of 3 Yr. EQIP Contract*
- *Retention Isn't Linear (More On That Later)*

Conservation Scenario (*No Retention*)

(Cover Crops and Nutrient Management)

Total Row Crop Acres	177,600,000		2023	\$6,090,792,000.00
50% of Row Crop Acres	88,800,000		2024	\$6,090,792,000.00
			2025	\$6,090,792,000.00
Cover Crop - Basic (IN)	\$61.48		2026	\$6,090,792,000.00
Nut. Mgmt. - Basic (IN)	\$7.11		2027	\$6,090,792,000.00
Available Cost Share/Ac.	\$68.59		2028	\$6,090,792,000.00
			2029	\$6,090,792,000.00
			2030	\$6,090,792,000.00
			Total	\$48,726,336,000.00
			2031	It Could All Go Away..

\$40B

Conservation Scenario (*100% Retention*)

(Cover Crops and Nutrient Management)

Total Row Crop Acres	177,600,000	2023	\$6,090,792,000.00
50% of Row Crop Acres	88,800,000	2024	\$6,090,792,000.00
		2025	\$6,090,792,000.00
Cover Crop - Basic (IN)	\$61.48	2026	\$0.00
Nut. Mgmt. - Basic (IN)	\$7.11	2027	\$0.00
Available Cost Share/Ac.	\$68.59	2028	\$0.00
		2029	\$0.00
		2030	\$0.00
		Total	\$18,272,376,000.00

\$40B

2031 We All Live Happily Ever After
and We Can All Retire.

Conservation Scenario (15% Retention)

(Cover Crops and Nutrient Management)

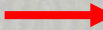


Total Row Crop Acres	177,600,000
50% of Row Crop Acres	88,800,000
Cover Crop - Basic (IN)	\$61.48
Nut. Mgmt. - Basic (IN)	\$7.11
Available Cost Share/Ac.	\$68.59

\$40B

2023	\$6,090,792,000.00
2024	\$6,090,792,000.00
2025	\$6,090,792,000.00
2026	\$5,177,173,200.00
2027	\$5,177,173,200.00
2028	\$5,177,173,200.00
2029	\$4,400,597,220.00
2030	\$4,400,597,220.00
Total	\$42,605,090,040.00

2031 This is pretty close to reality.

2031	\$4,400,597,220.00
2032	\$3,740,507,637.00
2033	\$3,740,507,637.00
2034	\$3,740,507,637.00
2035	\$3,179,431,491.45
2036	\$3,179,431,491.45
2037	\$3,179,431,491.45
 2038	\$2,702,516,767.73
2039	\$2,702,516,767.73
2040	\$2,702,516,767.73
2041	\$2,297,139,252.57
2042	\$2,297,139,252.57
2043	\$2,297,139,252.57
2044	\$1,952,568,364.69
2045	\$1,952,568,364.69
2046	\$1,952,568,364.69
2047	\$1,659,683,109.98
2048	\$1,659,683,109.98
2049	\$1,659,683,109.98
2050	\$1,410,730,643.49

Conservation Scenario (50% Retention)

(Cover Crops and Nutrient Management)

Total Row Crop Acres	177,600,000
50% of Row Crop Acres	88,800,000
Cover Crop - Basic (IN)	\$61.48
Nut. Mgmt. - Basic (IN)	\$7.11
Available Cost Share/Ac.	\$68.59

\$40B

2023	\$6,090,792,000.00
2024	\$6,090,792,000.00
2025	\$6,090,792,000.00
2026	\$3,045,396,000.00
2027	\$3,045,396,000.00
2028	\$3,045,396,000.00
2029	\$1,522,698,000.00
2030	\$1,522,698,000.00
Total	\$30,453,960,000.00



2031 We Should Aspire to This

2031	\$1,522,698,000.00
2032	\$761,349,000.00
2033	\$761,349,000.00
2034	\$761,349,000.00
2035	\$380,674,500.00
2036	\$380,674,500.00
2037	\$380,674,500.00
2038	\$190,337,250.00
2039	\$190,337,250.00
2040	\$190,337,250.00
2041	\$95,168,625.00
2042	\$95,168,625.00
2043	\$95,168,625.00
2044	\$47,584,312.50
2045	\$47,584,312.50
2046	\$47,584,312.50
2047	\$23,792,156.25
2048	\$23,792,156.25
2049	\$23,792,156.25
2050	\$11,896,078.13

The Future

Could we take this forecasting a step further?

- Think about how these retention scenarios could be calculated in nutrient loading and water quality outcomes, instead of program expenditure.
 - Can we meet major water quality objectives (ex. Gulf Hypoxia Task Force Goals)?
- What about GHG?
- What about soil loss and erosion?

The Carrot and The Stick (Ver. 2.0)

Incentive Programs

- Farm Bill Programs
 - Regional Conservation Partnership Program (RCPP)
- Tax Incentives – Farmer and Landowner
- Crop Insurance and Lending Incentives
- Cost-Share for Equipment Modification
- Subsidized Cost Structures – Cover Crops
- Enhanced Technical Assistance – Service Based Models

(Semi-) Regulation

- Highly Erodible Land Provisions
 - Sodbuster, Swampbuster
 - Gulf Hypoxia Task Force
 - Voluntary Action
 - Environmental Regulations (Livestock)
- +
- GHG Emissions Standards?
 - Gulf Hypoxia Task Force??
 - Required Action?
 - WOTUS???
 - Export Requirements????

What am I missing?