LEVERS OF OPPORTUNITY:
Scaling Adoption of Natural Climate Solutions in Wisconsin to achieve net-zero goals

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In this report, we further discuss **rural economic development** and **blended capital and finance** mechanisms to help scale adoption to the level needed to achieve any one of the three pathways to net-zero.

I. <u>Rural Economic Development</u>

Natural climate solutions can help Wisconsin save **$902 million to $3.3 billion annually** in avoided climate damages[1]. Diversification into perennial systems like agroforestry, perennial row crops and grassfed dairy protects water quality, regenerates soil health, mitigates climate risks, reduces statewide greenhouse-gas reductions *and* produces high-value crops and products—providing both ecological and economic value. Perennial agriculture can strengthen Wisconsin's rural communities and economy while advancing net-zero goals.

Food processing activities in Wisconsin contribute $107 billion annually to industrial sales[2], mostly in the form of raw conventionally-grown commodities and cheese (DATCP 2025b). Consumer demand for regenerative agricultural[3] products is at an all-time high, with nearly 75% of U.S. consumers expecting companies to source ingredients sustainably (ADM 2023). U.S. revenue from regenerative agriculture–sourced products is projected to soar from $8.7 billion in 2022 to $32.3 billion by 2032 (ADM 2023). The agricultural food industry is responding to rising consumer demand (Table 1):

Table 1. Examples of corporate commitments that support NCS practices in the Midwest.

Corporation	Summary of commitments	Additional Notes
Nestlé	Aims to source 50% of key ingredients through regenerative agriculture by 2030 (ADM 2023; Nestlé USA 2022).	Both companies source dairy, berries, and some nuts domestically—products central to perennial systems.
Danone North America	Regenerative agriculture program currently spans 150,000 acres and 2.4 billion pounds of dairy milk– 75% of its U.S. dairy milk supply (Danone North America 2022).	

[1] Deller & Hadacheck 2022, Multi-Hazard Mitigation Council 2019.
[2] 'Industrial sales' refers to the business-to-business (B2B) process of selling raw agricultural products, equipment, and/or services to other companies that use them in their own manufacturing or production.
[3] "Regenerative agriculture describes farming and grazing practices that, among other benefits, address climate change by rebuilding soil organic matter and restoring degraded soil biodiversity – resulting in both carbon drawdown and improving the water cycle" (ADM 2023).

<table>
<tr><td>Dairy Management, Inc. (DMI)</td><td>The national dairy checkoff program (funded by mandatory dairy farmer contributions) has committed to achieving net-zero emissions by 2050 (US Dairy Net Zero Initiative 2023).</td><td rowspan="2">DMI and NMPF work alongside each other to advance net-zero goals in the dairy industry, highlighting a key opportunity for WI dairy heifer grazing as an in-road to advancing adoption of grassfed livestock management.</td></tr>
<tr><td>National Milk Producers Federation (NMPF)</td><td>NMPF represents cooperative dairy processors handling more than 75% of U.S. milk and is advancing supply chain initiatives that support on-farm reductions in greenhouse gas emissions and other environmental impacts (NMPF 2024).</td></tr>
<tr><td>Cargill</td><td>Cargill's RegenConnect program launched in 2021 to support the adoption of regenerative agriculture by connecting farmers with opportunities in environmental markets like the Soil and Water Outcomes Fund and sustainable supply chains. Cargill supports practices including cover crops, reduced tillage, nutrient optimization, grazing management and agroforestry (Cargill 2025).</td><td>Collaborates with other companies, such as McDonald's and Nestlé Purina, to implement regenerative agriculture within their respective supply chains for products like protein and pet food (Cargill 2025).</td></tr>
<tr><td>Tyson Foods</td><td>Created the Local Grain Services (LGS) Sustain Program in 2023, a pay-per-practice program that offers producers financial incentives per acre of practice implemented and technical assistance to adopt a closed-set of practices: cover crops, reduced tillage, nutrient management, edge-of-field and un-specified ”innovative practices” (Tyson Foods 2025).</td><td>Sources livestock from independent Wisconsin farmers, primarily hogs and cattle. In 2021, Tyson Foods closed its prepared food facility in Jefferson (Hauer 2021).</td></tr>
<tr><td>General Mills</td><td>Public-private partnership with The Land Institute and the University of Minnesota's Forever Green Initiative since 2014, to advance applied research on the GHG-reduction potential of Kernza® and to increase yields through crop breeding. Cascadian Farms began incorporating Kernza® into their certified-organic line of cereals in 2017, to advance commercialization of the perennial grain, build consumer awareness, generate excitement and increase demand for climate-beneficial foods (General Mills 2017).</td><td rowspan="2">In 2024, The Land Institute launched the Perennial Percent™ initiative in 2024 to encourage more food and beverage producers to use at least 1% of perennial grains in their products (The Land Institute 2024).</td></tr>
<tr><td>Patagonia Provisions</td><td>Partnered with Deschutes Brewing Co. and Sustain-A-Grain in 2016 to launch nationwide distribution of a regenerative organic-certified Kernza® Pale Ale. In 2023, launched a partner brewery program with ~20 regional breweries to brew their Kernza® Lager and the non-alcoholic Kernza® Golden Ale.</td></tr>
</table>

These corporate initiatives, and many more like them, employ market mechanisms and provide economic incentives for farmers in rural communities to adopt improved agricultural practices, including perennial systems like managed grazing and agroforestry.

Within Wisconsin, larger companies—both family-owned and cooperative—also provide Wisconsin producers with economic incentives for improved agricultural practices. **Meister**

Cheese (Muscoda, WI) offers premium prices for farms that have pasture in their production system as part of their CowsFirst™ program and leverages this program in their contracts with national retail and foodservice companies, including **Chipotle** (Meister Cheese n.d.)**.** Wisconsin's flagship cooperative, **Organic Valley** (La Farge, WI), features a *100% Grass-fed* milk line (Grassmilk®) and requires pasture-based systems for all its standard organic dairy products (Organic Valley 2025a, 2025b).

To advance rural economic opportunities for natural climate solutions at scale–*including* 100% adoption of cover crops and no-till practices, and a 20% reduction in nitrogen application to annual cropland used for food and livestock-feed production–strengthening or further developing public-private partnerships that support these practices *must* be part of the solution. As a leading agricultural state in the nation, Wisconsin is well-positioned to leverage these opportunities.

At the same time, **relying on large-scale corporate incentives *alone* will not achieve net-zero goals in Wisconsin**. Small- and medium-sized farms often face significant barriers to market entry, and have fewer options and weak bargaining power in the face of the agricultural industry's consolidated market power (see APPENDIX B: Barriers to Adoption of NCS in Wisconsin). Further, large-scale production favors simplified production systems, which have a negative ecological impact–even if those systems are perennial. Wisconsin needs a diversity of equitable market opportunities to meet the diverse needs of farmers of all scales and to ensure biodiversity is well protected in pursuit of climate goals.

Strategic investment into local and regional perennial value chains can unlock new economic opportunities for rural communities while advancing state net-zero commitments.

High-protein crops like hazelnuts, chestnuts and Kernza®, nutraceuticals like elderberries and aronia, and grassfed dairy offer nutrient-dense, high-value agricultural products that consumers are increasingly demanding. Development of value chain infrastructure presents an opportunity to unlock local, regional, national and international markets through production, processing, product development and branding of climate-resilient food and beverages—both raw and value-added—not yet available on the market (Ecotone Analytics et al. 2023, Global Alliance for the Future of Food 2022).

Regional value chain hubs also provide local and regional farmers with direct-market access to Wisconsin businesses like breweries, distilleries and bakeries. Development of strategically-located tree crop propagation centers, commercial tree crop nurseries, specialized processing and distribution facilities, product manufacturing—when paired with business development support—can stimulate rural job creation in agricultural industries including specialized food processing, product development, logistics and distribution systems. These value-chain hubs keeps food dollars circulating in local communities, which in turn supports other local businesses[4]. Examples of replicable, scalable value-chain hub models already exist in Wisconsin **(Table 2)**:

[4] Wisconsin Food Hub Cooperative 2025.

Table 2. Existing models of successful regional Wisconsin value chain hubs.

Model	Description
Viroqua Food Enterprise Center	Developed by the Vernon Economic Development Association (est. 2009). Regional food hub that offers regional producer groups and food businesses warehouse space for food processing and aggregation, shared coolers and dock facilities, as well as business development resources like business counseling and peer mentoring. Serves 18 food and wellness-related businesses and producer groups, including the Driftless Berry Grower Group and the aronia-elderberry juice business, Berry Adventurous®. Supports over 85 rural jobs (WDEC 2021).
Wisconsin Food Hub Cooperative	Farmer-led cooperative in Waupaca, owned by the producers and the Wisconsin Farmers Union (est. 2013). Provides critical food system infrastructure for farmers and rural communities: marketing and sales support, financial management tools, post-harvest aggregation and refrigerated storage, distribution logistics and transportation services, training and certification in food safety, group insurance coverage, and wholesale/retail market access for both crop and livestock producers (Wisconsin Food Hub Cooperative 2025).
Midwest Hazelnuts, LLC	Mission-driven, steward-owned company spun out of the Upper Midwest Hazelnut Development Initiative to build a sustainable hazelnut industry in partnership with the University of Wisconsin and University of Minnesota (est. 2007). Scales improved hazelnut genetics, supports regionally-clustered groups of growers with propagation, shared processing, and supply chain infrastructure, and works through its Go-First Farms network to demonstrate scalable, climate-friendly production that strengthens rural economies and ecosystems (Midwest Hazelnuts 2025, UMHDI 2025).
Wisconsin Kernza® Supply Chain Hub (Pilot)[5]	Collaborative initiative among Clean Wisconsin, Michael Fields Agricultural Institute, UW-Madison and Extension, Rooster Milling, and local Wisconsin Kernza® growers, aimed at overcoming supply-chain barriers for Kernza® perennial grain (est. 2024). Provides technical assistance to growers and coordinates sourcing, specialized processing, and direct-market purchasing between Wisconsin producers and businesses like Karben4 Brewing Co. to increase both supply and demand of Kernza® in the state while reducing carbon footprint of transport and distribution.

Scaling and replicating these and other similar value chain development models across Wisconsin's Agricultural Economic Areas (AEAs) provides the foundation to advance

[5] Made possible by the Daybreak Fund and the Platform for Agriculture and Climate Transformation (PACT) (2023-2025).

commercialization of emerging perennial crops, provides market access and supports greater adoption of perennial agriculture. Without enabling investments into early-stage supply chain infrastructure, high-value perennial crops risk remaining economically marginal and the natural climate solutions Wisconsin must scale to achieve net-zero emissions in our agricultural sector by 2050 risk remaining fringe practices. By leveraging proven models and aligning rural economic development with ecological outcomes, Wisconsin can support a diversity of emerging market pathways to spur adoption of natural climate solutions and advance net-zero goals.

Value chain development priorities for NCS in Wisconsin:

In 2024 the University of Wisconsin-Extension Emerging Crops Team released a strategic plan for accelerating the development of a suite of emerging hardy annual, perennial and agroforestry crops in Wisconsin, in collaboration with stakeholder organizations, grower groups and government entities working to support crop diversification, economic development, and soil and water stewardship in Wisconsin (Fischbach and Mirsky 2024). The analysis provides Wisconsin with tangible priorities to target high-impact investment into value chains for crops that are already in production in the state and are produced in the agricultural systems with greatest potential for significantly reducing greenhouse gas emissions in Wisconsin. **Figure 1** illustrates differing levels of development priority across crops and crop types:

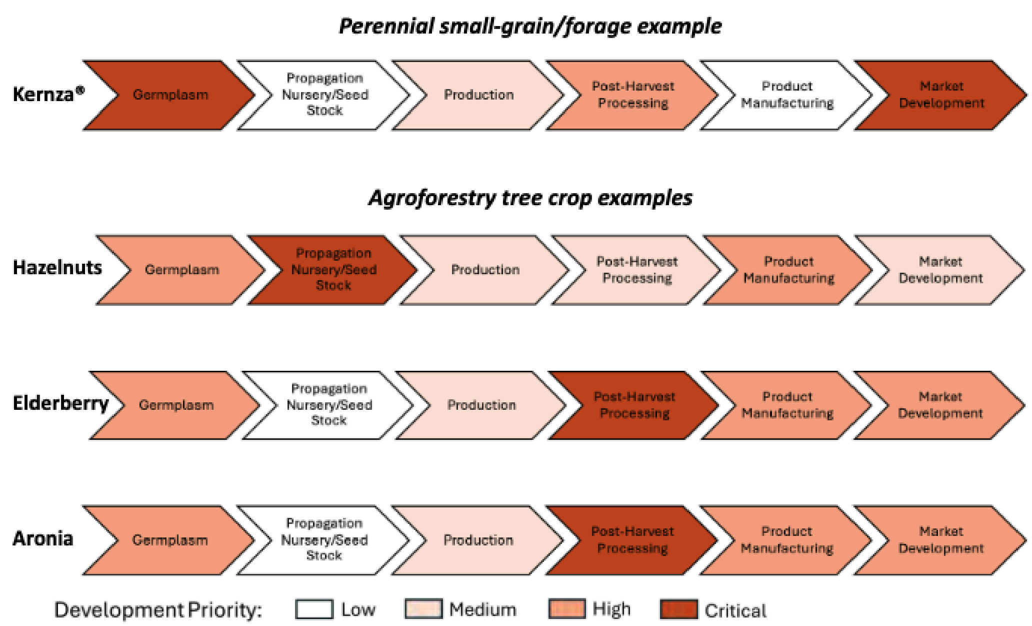

Figure 1. Crop-specific Strategic Development Priorities. *Adapted from:* Fischbach and Mirsky (2024). Development priority levels: *Low* - not a bottleneck; sufficient activity or success; easily overcome with existing tools or knowledge. *Medium* - bottleneck, but manageable: work is underway, solutions are known or urgency is lower than other constraints. *High*- major bottleneck requiring new efforts or significant support to overcome. *Critical* - Key barrier preventing industry growth; must be addressed before expansion is possible.

Multiple stages of value-chain development must advance simultaneously and in coordination. For instance, early integration of market development and commercialization with germplasm and propagation is critical to ensure breeding efforts align with consumer demand as well as production, processing and manufacturing needs. Key market activities may also include the sale of seed and nursery stock, investment in harvest and handling infrastructure for new crops, and product development to deliver consumer-ready products (*see* Wisconsin Emerging Crops Strategic Plan (2024) for more crop-specific information). Paired with the *Future Projected Wisconsin Crop Suitability* tool, this information can be used to identify priority crops for development, where those crops are projected to thrive under future climate conditions, and where investment into value-chain development is needed to advance rural economic development goals across the state.

II. Blended finance mechanisms and Public-private partnerships

Investments in the agricultural transition present one of the biggest opportunities of our time– with the potential to drive resilient financial, environmental and social outcomes at scale.

- Regenerative Food Systems Investment (RFSI), 2025.

Building robust perennial value chains requires coordinated investment all along the value chain. *Enabling investments* can be made anywhere across the value chain and are crucial to support the transition to perennial agriculture practices (RFSI 2025, TIFS 2025). These may include investment into practice transition and establishment, biological inputs (e.g. biochar processing and development), data collection and analysis, measurement and monitoring tools, supply-chain and processing infrastructure, food brands, policy and advocacy efforts, and more. **Figure 2** provides a simplified illustration of the investment opportunities along the value chain:

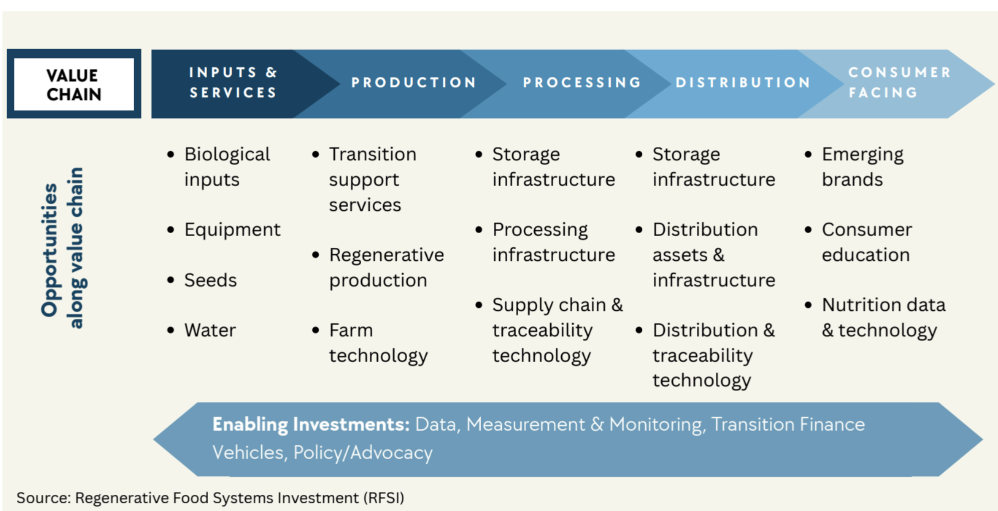

Figure 2. Enabling investments across the value chain. *From* Regenerative Food Systems Investment (RFSI) 2025.

Currently there are four primary sources of capital that fund improved agricultural practices: markets, public funding, corporate financing and private capital.

Market mechanisms (e.g. market premiums or reduced costs as a result of improved practices, and payment-for-ecosystem-services) are still under-developed and often unreliable.

For example, premiums are not guaranteed or the timing of the financial benefit may not align to support the immediate transition– such as in the case of agroforestry tree crops (RFSI 2025). Voluntary carbon markets (VCMs) and Compliance Carbon Markets (CCMs) are becoming easier for smaller landowners to participate (PDP 2025, UW Extension-Forestry 2025, Gathering Waters 2022) but are still relatively nascent outside of large landholdings. Biodiversity markets have been around for decades–particularly for wetlands– but not particularly well-known nor utilized (Sarsfield 2025, Madsen 2024). Biochar markets (CDR.fyi 2025) are in their infancy, and not yet available in Wisconsin.

Public funding (e.g. government subsidies, grants, loans, incentive programs, bonds, etc.) places an extraordinary burden on public tax dollars and is susceptible to changes in the political environment– as we've seen in 2025 with budget cuts to U.S. federal programs.

Corporate financing has the potential to make a significant impact as a result of the scale of corporate supply chains (RFSI 2025). However, mistrust of corporate intentions based on historical farmer experiences, barriers to market entry for small- and medium-sized farm enterprises, and replications of historical incentive models that reward large-scale, simplified agricultural production models are significant challenges to the stand-alone efficacy of this funding mechanism.

Private capital (e.g. direct/indirect financing from banks and lending institutions, insurance companies, investors, asset owners/managers and philanthropic organizations) fills the gaps of conventional public-corporate-market financing structures and is rapidly changing in response to emerging opportunities for financial and impact returns (RFSI 2025, USFRA 2021).

Public or philanthropic dollars create a critical safety net for producers by taking on the early risk—through grants, guarantees or low-interest loans—so that producers are more willing to adopt new practices and banks or private investors are more willing to put in their own capital. However, these primary financing mechanisms remain largely siloed, resulting in capital flows that are slow, fragmented, diluted and uncoordinated—ultimately not reaching the food producers making on-the-ground impact at the speed and scale needed to affect food system transformation (TIFS 2025a, World Economic Forum 2024). This underscores the need and opportunity for policy mechanisms—such as incentives, blended finance structures, and public–private partnerships—to align and prioritize coordinated investment streams for perennial agriculture and natural climate solutions to scale to the levels needed to achieve net-zero goals.

Leverage blended finance mechanisms and public-private partnerships:

Blended finance combines different types of capital (e.g., equity, loans, grants, donations) through coordinated public–private partnerships. By pooling resources from multiple sources, it aligns public and private interests while expanding investment opportunities. In the context of perennial agriculture, blended finance can help bridge the gap between producers' needs (longer timelines, delayed returns, multiple co-benefits, and higher uncertainty) and traditional investors' expectations (predictable, annual returns) (RFSI 2025; World Economic Forum 2024, Bennell et al., 2021). These approaches offer additional advantages: integrating technical assistance into investment packages, funding infrastructure alongside operations, lowering interest rates for farmers, structuring loans to match multi-year transitions, and reducing public tax burdens.

Public-private partnerships (PPPs) can combine technical assistance (e.g. public/university partners and civic sector organizations), outcome-based payments (state procurement or pay-for-success), and "patient" capital (e.g. long-term investment capital; flexible, long-horizon funding; growth-oriented investment and early-stage or "catalytic" funding, such as low-interest loans, loan guarantees, and revolving funds) to align private incentives with public environmental outcomes. Wisconsin can develop and leverage a coordinated capital strategy that blends public, philanthropic, and private funds to de-risk investments, pool capital at scale, and deliver shared public benefits (i.e. water quality, soil health, climate stabilization) while enabling private returns and commercial viability of natural climate solutions.

Blended finance and PPP models have been used in other states to mobilize far more private capital than public dollars alone and to translate environmental outcomes into financeable revenue streams—mechanisms Wisconsin can adapt to accelerate perennial systems and the processing/supply-chain needed to scale them (Table 3):

Table 3. Examples of existing public-private partnerships for blended financing

State/Initiative	Description	Reference
Maryland Conservation Finance Act (SB348)	Authorizes novel procurement and contracting approaches that allow agencies to purchase verified environmental outcomes (e.g. soil carbon, water quality) and structure public–private deals to attract private capital to nature-based projects. Creates procurement pathways and legal frameworks to monetize outcomes.	Maryland General Assembly (2022)
Connecticut Connecticut Green Bank	Uses modest public seed capital to leverage multiple times more private capital through loans, loan guarantees, and co-financing. Broadens remit to environmental infrastructure and markets (including agriculture-adjacent outcomes). Converts public dollars into market-rate financing and catalytic credit enhancements.	Connecticut Green Bank (n.d.)
California California Climate Investments	Channels carbon market cap-and-trade revenues into competitive grants and incentive programs for	California Air Resources Board (n.d.)

	sustainable agriculture, processing, and infrastructure. Demonstrates how a large public revenue stream can attract complementary private investment and scale supply chains.	
Minnesota University of Minnesota's Forever Green Initiative	Public research institutions (e.g. University of MN, The Land Institute) plus private sector actors (e.g. Cargill, General Mills, Perennial Promise Growers Cooperative, etc.) partner to advance crop development, demonstration farms, commercialization and early-market aggregation, reducing technical and market risks to attract private buyers and processors. Reduces technical and market risk, enabling private buyers and processors to invest.	University of Minnesota (n.d.)

Farmers should be offered a **flexible portfolio of financial and non-financial support and services** tailored to their context—including favorable loans and insurance policies that reflect the reduced risk exposure for financial actors, and upfront payments or guarantees to reduce early adoption risks—alongside technical assistance, data services, and access to equipment and inputs (World Economic Forum 2024). A central financing strategy for scaling and sustaining regenerative practices is to capture the **full value of the ecosystem services** they provide—from healthier soils, carbon storage, and lower greenhouse gas emissions to reduced water use, improved water quality, greater resilience, and enhanced biodiversity (World Economic Forum 2024). **All who gain from natural climate solutions should contribute to financing its adoption**, including supply chain partners, financial institutions, insurers, and governments. Because farmers need sustained financial and technical support in the early years before environmental outcomes materialize, capital must be pooled from both public and private sources, using tools such as catalytic, concessional, and long-term investments (World Economic Forum 2024).

In Wisconsin, there are nascent opportunities for leveraging PPPs and blended capital to advance natural climate solutions—especially for rural economic development:

- In 2023, the Wisconsin Investment Fund was established *to leverage public and private dollars to increase investment in WI companies and to empower small businesses to access capital needed to invest in expanding opportunities* (WDEC 2024). With a total 10-year program allocation of $50 million, in fiscal year 2024, **$1.35 million funded five investments.**

- Also in 2023, the state's first Green Innovation Fund was established to *leverage public and private funds to invest in strategic energy efficiency and renewable energy projects* (WEDC 2025). Requests for proposals are open, though the **current status of available funding is unknown**.

- In 2024, the Strategic Investment Fund was established to *support projects strategically forwarding WEDC's mission and vision*, including fueling financial stability, supporting healthy living, reinforcing community infrastructure and respecting the environment. In fiscal year 2024, **$2.2 million funded 2 projects** (WDEC 2024)**.**

Wisconsin can begin by leveraging these existing funds to blend public, philanthropic, and private capital, provide credit enhancements, low-interest loans, and risk-protection capital to growers, processors, and value-chain infrastructure to help fund the transition towards **NCS Pathways 1-3** to achieve net-zero emissions in Wisconsin agriculture. Partnerships with public and civic sector organizations providing technical assistance services—such as USDA-NRCS, UW Extension, UW-Madison's Grassland 2.0, the Savanna Institute, Michael Fields Agricultural Institute, and others—can reduce transition, establishment and production risk and ensure knowledge transfer of best practices. This in turn builds private investor confidence for purchase commitments and investments into value-chain infrastructure. Targeted blended capital products, including loan guarantees, subordinated debt, and matching grants, can further lower financing costs for small- and mid-scale processors and shared-ownership models. Together, these strategies can direct funding to scale adoption of natural climate solutions, generating significant ecological, economic, and climate benefits along the way.

Attract impact investors to Wisconsin:

There are additional private investment mechanisms that Wisconsin can leverage to attract new investors into the state– funding mechanisms that are rapidly changing in response to market and environmental signals[6]. Private equity and venture capital—such as "bridge" capital funds, rural business investment companies, community development venture capital, etc.—are positioned to make equity investments in small businesses or rural communities with strong growth potential and can be targeted to support economic development of perennial agriculture systems and value chains in underinvested communities (USFRA 2021).[7] Creating and marketing attractive impact investment portfolios is the first step to attracting impact investors to Wisconsin. These additional funders can help refill existing funds (e.g. Green Innovation Fund) or develop new blended capital pools to target Wisconsin's agricultural transition to a net-zero economy (Table 4).

Table 4. Examples of impact investors financing emerging agriculture transitions in the Midwest (TIFS 2025b, USFRA 2021).

Capital & Networks	Capital Activators & Supply Chain	Impact Investment Managers
Funders for Regenerative Agriculture	TIFS - Transformational Investing in Food Systems	Iroquois Valley Farmland REIT
Perennial Fund	Proofing Station	Farmland LP
Builders Vision	Traction Capital	MAD! Capital
MRAF- Midwest Regenerative Agriculture Fund	Propagate	Potlikker Capital
Compeer Financial	DiversiFund	Trillium Asset Management

[6] *See* USFRA 2021 for detailed summaries on *Transformative Finance* mechanisms (pp. 52-87).

[7] There are many resources to guide public- and private-sectors on best practices for investing in agricultural climate solutions, including investment standards and disclosures (*see* TCFD 2021a, TCFD 2021b, Negra et al. 2019, TCFD 2017, SASB 2015) and frameworks (*see* Global Alliance for the Future of Food 2022, Ceres 2021, Ascui & Cojoianu 2019, Fenichel et al. 2016). These can inform the state's process for attracting, regulating and monitoring private investment commitments to natural climate solutions for Wisconsin agriculture.

Dirt Partners	Blue Highway Growth Capital	Impact Assets
Fractal	2SF - Second Story Farms	Regenerative Agriculture Foundation

Coordinate Capital to Scale Perennial Agriculture and Natural Climate Solutions

Wisconsin can catalyze the deployment of finance into enabling investments across the value-chain to accelerate the transition to natural climate solutions and a net-zero agricultural economy. Stronger coordination is needed to streamline adoption for farmers, bring together the diverse stakeholders who both contribute to and benefit from natural climate solutions, and clearly demonstrate the value of participation for all involved. Public-private collaboration is critical to effectively assess, pool, price and manage risk, aggregate capital, and monetize ecosystem services to re-design cash flows for Wisconsin farmers (World Economic Forum 2024). Strategic policy action can build the business case for private sector companies, investors and farmers to expand adoption of natural climate solutions, align fragmented capital and direct it toward shared public and private priorities in the form of catalytic programs and innovations. As a leader in the US. Climate Alliance (US Climate Alliance 2025), Wisconsin is well-positioned to extend that leadership capacity to the development of innovative blended funding mechanisms in Wisconsin to accelerate the transition to a net-zero agricultural economy. Rural economic development, when informed by the NCS Roadmap analyses, value chain development priorities, agroeconomic analyses and future projected crop suitability tools, can be the vehicle for transformation. To coordinate capital effectively, Wisconsin must:

- **Address inefficiencies**: Fragmented capital streams create duplication, funding gaps, and higher transaction costs. Reduce duplication and gaps by channeling diverse funding streams into complementary investments, such as through a Green Innovation Fund *Natural Climate Solutions* investment package.

- **Align fragmented capital through coordinated policy tools**: Establish incentives, blended finance structures, and public–private partnerships to direct investment toward scaling perennial agriculture and natural climate solutions (Global Alliance for the Future of Food 2022).

- **Unlock co-benefits**: Coordinated investment in perennial agriculture delivers multiple returns—climate mitigation, soil health, water quality, and rural economic resilience (RFSI 2025, Bennell et al. 2021, Ceres 2021, TCFD 2021a, TCFD 2021b, Ascui & Cojoianu 2019, Negra et al. 2019, TCFD 2017, Fenichel et al. 2016, SASB 2015). Prioritize investment packages for agricultural systems that deliver ecosystem services, climate mitigation and adaptation, and long-term economic resilience.

- **Leverage partnerships to support adoption at scale**: Farmers require financing mechanisms that reflect multi-year transitions and evolving risk profiles, rather than short-term repayment expectations. Pair public resources with private capital to lower risk, extend timelines, and enable long-term adoption of perennial systems (RFSI 2025, TIFS 2025, Global Alliance for the Future of Food 2022).

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