U.S. Department of Agriculture
Natural Resources Conservation Service

NOTICE OF GRANT AND AGREEMENT AWARD

1. Award Identifying Number	2. Amendment Number	3. Award /Project Period	4. Type of award instrument:
NR233A750004G024		Date of final signature - 03/31/2028	Grant Agreement

5. Agency (Name and Address)	6. Recipient Organization (Name and Address)
USDA Partnerships for Climate-Smart Commodities c/o FPAC-BC Grants and Agreements Division 1400 Independence Ave SW, Room 3236 Washington, DC 20250 Direct all correspondence to FPAC.BC.GAD@usda.gov	ACCELERATING APPALACHIA, INC PO BOX 3685 MIDWAY KY 40347-3685 UEI Number: MBMWDSYSA4A1 EIN:

7. NRCS Program Contact	8. NRCS Administrative Contact	9. Recipient Program Contact	10. Recipient Administrative Contact
Name: TANYA CULBERT	Name: MARIA COWLES	Name: Stephanie Devine	Name: Le'Shae Robinson
(b)(6)			

11. CFDA	12. Authority	13. Type of Action	14. Program Director
10.937	15 USC 714 et seq	New Agreement	Name: SaraDay Evans (b)(6)

15. Project Title/ Description: Expands climate-smart fruit, vegetables, beef, pork, cotton, wool, row and specialty crop markets in GA, KY, NC, OH, SC, TN, VA, WV and support implementation and monitoring of climate-smart practices

16. Entity Type: Q = For-Profit Organization (Other than Small Business)

17. Select Funding Type

Select funding type:	☒ Federal	☒ Non-Federal
Original funds total	19,940,980.000	$2,193,215.00
Additional funds total	$0.00	$0.00
Grand total	19,940,980.000	$2,193,215.00

18. Approved Budget

Personnel	$2,136,362.00	Fringe Benefits	$849,508.00
Travel	$169,032.00	Equipment	$0.00
Supplies	$66,119.00	Contractual	$332,500.00
Construction	$0.00	Other	16,387,459.000
Total Direct Cost	19,620,710.000	Total Indirect Cost	$320,270.00
		Total Non-Federal Funds	$2,193,215.00
		Total Federal Funds Awarded	19,940,980.000
		Total Approved Budget	22,134,195.000

This agreement is subject to applicable USDA NRCS statutory provisions and Financial Assistance Regulations. In accepting this award or amendment and any payments made pursuant thereto, the undersigned represents that he or she is duly authorized to act on behalf of the awardee organization, agrees that the award is subject to the applicable provisions of this agreement (and all attachments), and agrees that acceptance of any payments constitutes an agreement by the payee that the amounts, if any, found by NRCS to have been overpaid, will be refunded or credited in full to NRCS.

Name and Title of Authorized Government Representative	Signature	Date
KATINA HANSON Acting Senior Advisor for Climate-Smart Commodities	KATINA HANSON Digitally signed by KATINA HANSON Date: 2023.04.10 09:06:08 -05'00'	04/10/2023
Name and Title of Authorized Recipient Representative	Signature	Date
SARADAY EVANS Program Director	SaraDay Evans Digitally signed by SaraDay Evans DN: cn=SaraDay Evans, o=Accelerating Appalachia, ou, email=saraday@acceleratingappalachia.org, c=US Date: 2023.04.05 18:04:02 -04'00'	4/5/2023

NONDISCRIMINATION STATEMENT

The U.S. Department of Agriculture (USDA) prohibits discrimination in all its programs and activities on the basis of race, color, national origin, age, disability, and where applicable, sex, marital status, familial status, parental status, religion, sexual orientation, genetic information, political beliefs, reprisal, or because all or a part of an individual's income is derived from any public assistance program. (Not all prohibited bases apply to all programs.) Persons with disabilities who require alternative means for communication of program information (Braille, large print, audiotape, etc.) should contact USDA's TARGET Center at (202) 720-2600 (voice and TDD). To file a complaint of discrimination write to USDA, Director, Office of Civil Rights, 1400 Independence Avenue, SW., Washington, DC 20250-9410 or call (800) 795-3272 (voice) or (202) 720-6382 (TDD). USDA is an equal opportunity provider and employer.

PRIVACY ACT STATEMENT

The above statements are made in accordance with the Privacy Act of 1974 (5 U.S.C. Section 522a).

Statement of Work

Purpose

The purpose of this agreement, between the U.S. Department of Agriculture, Natural Resources Conservation Service (NRCS) and Accelerating Appalachia (Recipient), is to build markets for climate-smart commodities and invest in America's climate-smart producers to strengthen U.S. rural and agricultural communities.

Objectives

The objectives of this project are to support the production and marketing of climate-smart commodities by providing voluntary incentives to producers and landowners, including early adopters, to implement climate-smart agricultural production practices, activities, and systems on working lands; measure/quantify, monitor and verify the carbon and greenhouse gas (GHG) benefits associated with those practices; and develop markets and promote the resulting climate-smart commodities.

Budget Narrative

The official budget summarized below and described in the attached Budget Narrative will be considered the total budget as last approved by the Federal awarding agency for this award.

Amounts included in this budget narrative are estimates. Reimbursement or advance liquidations will be based on actual expenditures, not to exceed the amount obligated.

TOTAL BUDGET $ 22,134,195

TOTAL FEDERAL FUNDS $19,940,980
PERSONNEL $1,942,148
FRINGE BENEFITS $772,280
TRAVEL $153,665
EQUIPMENT $0
SUPPLIES $60,108
CONTRACTUAL $325,000
CONSTRUCTION $0
OTHER $16,367,509 (includes PRODUCER INCENTIVES $10,082,650)
TOTAL DIRECT COSTS $19,620,710
INDIRECT COSTS $320,270

TOTAL NON-FEDERAL FUNDS $2,193,215
PERSONNEL $264,365
FRINGE BENEFITS $0
TRAVEL $24,150
EQUIPMENT $0
SUPPLIES $0
CONTRACTUAL $0
CONSTRUCTION $0
OTHER $1,904,700 (includes PRODUCER INCENTIVES $1,088,100)
TOTAL DIRECT COSTS $2,193,215
INDIRECT COSTS $0

Recipient has elected to use the de minimis indirect cost rate.

Subawardees must use their approved NICRA if charging indirect costs.

Responsibilities of the Parties:

If inconsistencies arise between the language in this Statement of Work (SOW) and the General Terms and Conditions attached to the agreement, the language in this SOW takes precedence.

RECIPIENT RESPONSIBILITIES

Perform the work and produce the deliverables as outlined in this Statement of Work and attachments.

Ensure Paperwork Reduction Act (PRA) clearance is obtained prior to conducting data collection from producers or other project participants, including data collection performed by subrecipients.

Comply with the applicable version of the General Terms and Conditions.

Submit reports and payment requests to the ezFedGrants system as outlined in the applicable version of the General Terms and Conditions. Reporting frequency is as follows:

Performance Reports: Quarterly

SF425 Financial Reports: Quarterly

Detailed Progress Report: Quarterly
(The detailed progress report is in addition to the performance and financial reports referenced above and described in the general terms and conditions)

Expected Accomplishments and Deliverables

See attached Benchmarks Table and associated Project Narrative.

Resources Required

See the Responsibilities of the Parties section for required resources, if applicable.

Milestones

See attached Benchmarks Table and associated Project Narrative.

GENERAL TERMS AND CONDITIONS

Please reference the below link(s) for the General Terms and Conditions pertaining to this award:
https://www.fpacbc.usda.gov/about/grants-and-agreements/award-terms-and-conditions/index.html

Attachments:
Budget Narrative
Project Narrative
Benchmarks Table
Climate-Smart Practices List and Limitations
Data Dictionary
Climate-Smart Specific Terms and Conditions

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Building Soil, Building Equity: Accelerating a Regenerative Farming Movement in Appalachia and the Southeast

Executive Summary

Building markets for and securing investments in America's climate-smart farmers is no easy task. Barriers abound for rural and agricultural communities, a reality that is perhaps most pronounced in Central and Southern Appalachia where the average per capita income is just 65% of the US per capita income and the average poverty rate is 126% of the US rate. 71 of the 81 counties the Appalachian Regional Commission has designated as "Distressed" are within this region. Equitable implementation of CSAF practices, as well as the production and marketing of climate-smart commodities, will remove barriers and unlock potential for underserved communities across Appalachia and the rural southeast while producing tangible benefits on regional soil, water, air, and health outcomes, as well as increased farmer economic mobility.

Leveraging and growing networks of underserved agricultural producers (for the purpose of this application, "producers" is used interchangeably with "farmers") across eight (8) Appalachian States, the Building Soil Building Equity (BSBE) project aims to sequester 732,500 tons of carbon over a five (5) year period across more than 65,000 acres of Appalachian and rural southeastern land through:

- Strategic recruitment to and activation of robust, pre-existing networks of climate-minded producers and businesses;
- Providing direct, zero-cost technical assistance and support around adopting climate-smart farming practices and monitoring the carbon sequestration and greenhouse gas mitigation impact of those practices;
- Incentivizing adoption of CSAF practices through five primary funds (with increased incentives for BIPOC producers):
    - BSBE Convening Farmer Participant Travel and Lodging Access Fund;
    - Farmer Field Day Access Fund;
    - Implementation Incentive Fund;
    - Implementation Resource Grant Fund; and
    - Monitoring Incentive Fund
- Strategically tracking the impact of select climate smart commodities through the supply chain and their economic results for farmers and markets;
- Supporting Climate Smart Commodities that include row crops, beef, pork, fiber and other specialty crops;
- Building and managing peer-to-peer learning networks for knowledge

sharing, and, perhaps most importantly;

- Creating lasting conditions for a cultural and practical shift around climate-smart agricultural practices and markets in Appalachia and the rural southeast.

Contact Information

Accelerating Appalachia

P.O. Box 3685

Midway, KY 40347

Project Partners

The strategic partnerships among Accelerating Appalachia (ACAP), the National Center for Appropriate Technologies (NCAT), Kentucky State University (KSU), Working Trees from Stanford University's TomKat Center for Sustainable Energy, Carbon Harvest, Latent Talent Accelerator (LTA), and GRC Advising (GRC), represent significant subject matter and regional expertise.

Underserved-Focused Partners

ACAP, NCAT, GRC, LTA and KSU have long histories of supporting underserved producers and communities of color, detailed in the Partner Capacity section below.

Need for Project

Despite being one of the most biologically diverse regions in the world, Central and Southern Appalachia remain in the throes of intergenerational and systemic poverty. The Nature Conservancy has stated that the Appalachian region is a top three international area of focus for potential climate impact--on par with East Africa and Indonesia. In 2020, West Virginia ranked 3rd and Kentucky 7th for carbon emissions. While the need is urgent, resources around understanding and adopting CSAF practices are elusive and often inaccessible for producers in the region.

Minimizing Transaction Costs

Transaction costs related to monitoring carbon sequestration and greenhouse gas mitigation will be minimized through the use of innovative, research-based, smartphone and web-based technology to enable low-cost, real-time documentation of implementation and impact for producers (Working Trees), and scaled marketing that provides broad market reach for BSBE participating producers. Additional transaction costs related to the BSBE Incentive Program will be addressed using direct deposit and digital transactions where possible, and the program will operate via a custom customer relationship management (CRM) system to ensure efficient and timely transactions.

BSBE capitalizes and builds on the existing expertise, capacity, and networks of the project team. Grant funds will be used to align, coordinate, and leverage the activities of each partner member of the project team to minimize transaction costs, while

maximizing farmer reach and sustainable impact, and sequester 732,500 tons of carbon over the grant period.

Reducing Barriers to CSAF Implementation

BSBE presents a unified strategy for activating and sustaining climate-smart farming and production across eight states, with over 732,500 tons of carbon sequestered at the rate of $30.44 per ton or over 60 pounds of carbon for every $1 spent through this transformative funding opportunity. This will be accomplished across a series of connected activities, partners, and collaborations to accelerate a climate-smart commodity farming movement in Appalachia and the rural southeast.

BSBE will remove barriers to climate-smart practice implementation through:

1. Collecting farmer insight to confirm known barriers and identify new barriers through a producer survey;

2. Developing new climate-smart education and implementation technical assistance content and delivery formats in response to survey responses;

3. Inviting survey respondents to enroll in the BSBE Incentive Program which provides up to 600 producers with:

    a. Funds to cover travel and lodging for attendance to BSBE Convenings (Years 2 and 4);

    b. Funds to cover travel, lodging, and food, for in-person BSBE and other climate-smart trainings and workshops including field days (Years 1-4);

    c. Funds to cover resource cost of implementing new climate-smart practice (e.g. purchasing saplings for silvopasture) (Years 1-4);

    d. Funds to incentivize implementation of climate-smart practices (Years 1-4); and

    e. Funds to incentivize monitoring and reporting on the GHG benefits of implementing climate-smart practices (Years 1-5).

4. Providing low/no-cost direct, dedicated technical assistance and learning opportunities to BSBE Incentive Program participants, including farmer field days, virtual resources, live virtual and in-person assistance, and CSAF-focused convenings for training and marketing networking; and

5. Creating, monitoring, and scaling markets for climate-smart commodities through:

    a. Connecting BSBE participants to climate-impact-minded businesses and investors by providing business support and development services and high-quality, broad-reaching, story-based

marketing that builds demand for climate-smart commodities;

b. Capture the market-facing relationships that farmers have and/or develop throughout the duration of the BSBE award; and

c. Tracking climate-smart commodities through the supply chain and calculating economic impact.

Geographic Focus

The geographic focus of BSBE encompasses Central and Southern Appalachia and the southeast, inclusive of: Kentucky, North Carolina, Tennessee, South Carolina, West Virginia, Virginia, Ohio, and Georgia, including some of the most underserved and hard-to-serve communities in the nation.

All producers will be encouraged and incentivized to continue their participation throughout the term of the grant and beyond as the project team secures additional program funding. The project team will aim to secure equitable representation from each state in the project area as well as equitable representation of underserved producer populations (75% of the 600, or 450 with additional incentives for BIPOC producers).

ACAP has a significant track record of supporting majority BIPOC, women and underserved population-led producers and organizations, as noted in the support letters included in attachments. Through the distribution of financial incentives, execution of BSBE field days, participant convenings and buyer/seller meet-ups, and BSBE-produced and -published CSAF technical assistance materials, up to 20,000 producers will benefit from the BSBE project.

Project Management Capacity of Partners

Accelerating Appalachia (ACAP) began in 2013 to provide scale-up support to regionally focused producers of regenerative product agricultural businesses through: 1) year-long accelerator cohorts, 2) individualized support for more than 50 businesses sourcing from 3-500+ small farms, and 3) direct assistance to farmers. The ACAP Business Accelerator program was the first accelerator in the world to focus on climate-smart practices and equity, framed then as regenerative agriculture and minority-owned businesses. The BSBE program will sit alongside and mesh with ACAP's Business Accelerator program; BSBE producers will be able to access the deep climate-minded business network ACAP has developed through the Accelerator while the BSBE program will develop CSAF producers suppliers to this same network, creating a mutually reinforcing network of CSAF producers and buyers with resources to continuously improve their climate impacts.

ACAP has a history of developing and supporting regionally resilient, climate smart, supply chain ecosystems that lead to the production of climate smart goods (food, clothing, shelter and health products) through incentives for food, fiber, and forest producers. This rich history will be amplified through the partners (noted below) implementing the BSBE marketing strategy. An inventory of current ACAP marketing channels (e.g. Patagonia's routine promotion of ACAP-affiliated products and

commodities on Twitter) will serve as a foundation for disseminating Year One engagement opportunities with BSBE farmers/producers and their products and commodities.

Ever since their founding - and throughout the BSBE project - ACAP has been committed to and exceeds the Justice40 practices given their commitment to get 75% of resources from this project to underserved producers.

A woman and Black woman-led organization, ACAP has always focused on promoting the work of underserved producers, including women, veterans, and BIPOC businesses and farmers, seeking to learn, practice and economically benefit from climate-smart strategies in the sectors of food/beverage, fiber, forest products, and health products. More than 70% of ACAP's 200 + participants are women. ACAP Business Accelerator cohort graduates have leveraged over $20 million in investments and their products can be found on grocery store shelves across the region. Among participants, 20% have been farmers, including, for example, Khame Abaye, an underserved, BIPOC farmer in Appalachian Kentucky, owner of Naychurs LoveLand, utilizing regenerative practices in the production of botanically based health supplements, as well as providing a communications and education platform for regenerative and nature-based learning. Through ACAP's accelerator program, Khame has leveraged additional investment to grow Naychurs LoveLand and create an online business.

A key component of ACAP's Business Accelerator program is connecting participants to mentors, investors, businesses, and other forms of support. As a result, ACAP has an extensive network that spans across the globe, and especially in our Appalachian region, as demonstrated by letters of support from mentors, investors and technology partners in California, Tokyo, New York City to farmers, regional lenders, businesses and farmer networks in Kentucky, Virginia, Ohio, West Virginia and North Carolina (see letters of support).

ACAP brings extensive experience in project management, small-business and producer relationships, managing broad business networks, and dedicated leadership both on staff and via project partners (sub-awardees) with area expertise. In this project, ACAP will provide project and grant management, including coordinating all partners, managing the incentive program including enrolling participants and processing producer participant incentive disbursements, compiling impact monitoring data, submitting grant reimbursements, and reporting for the grant. BSBE represents a culmination and expansion of ACAP's past and ongoing work; as a result, ACAP will dedicate the majority of organizational capacity to this project. In addition, ACAP will leverage partner expertise to increase their capacity for strategic planning, program evaluation and improvement, revenue growth, CSAF commodity economic impact measurement, marketing, and social media through partnerships with Latent Talent Accelerator and GRC Advising.

In their ongoing work to grow regenerative practices through a JEDI lens, ACAP will continue working alongside BIPOC (Black, Indigenous, People of Color) practitioners to feature and elevate the experiences of BIPOC producers in the BSBE producer network.

The National Center for Appropriate Technology (NCAT) provides direct in-person/on-farm and virtual technical assistance, free CSAF information and resources, and network-building services in partnership with federal agencies including the USDA and with vulnerable communities of color engaged in food systems and energy solutions. NCAT annually reaches more than 35,000 producers across the United States.

NCAT brings nearly 50 years of experience serving America's low-income and historically underserved communities of color to build resilient communities with technical assistance directly related to making climate-smart practices accessible. In this project, NCAT will:

1. Expand existing technical assistance and create new programming, training, and information resources to fill gaps producers identify in the implementation of on-farm climate-smart practices. Technical assistance resources may take the form of documentation available in hard-copy and digital formats, training webinars and recordings, live virtual assistance, and on-farm/in-person technical assistance and education (including one-on-one and group/field days), and peer-to-peer network education as identified as needed by participating producers.

2. Build and manage peer-to-peer learning networks among program participants to facilitate knowledge sharing among participating producers.

3. Use their strong communications department and broad audience to share project success, elevate best practices, and highlight the impact of climate-smart practices with USDA leadership and awardees, producers, markets, and consumers.

4. Develop protocols and farmer/producer-facing training, guidance resources, and on-going technical assistance to ensure that soil sample collection methods are in adherence with Kentucky State University (KSU), Kentucky's only public historically black university, soil testing methodology.

Soil samples will be mailed to KSU for analysis. Baseline soil sampling will measure active carbon and total carbon in order to demonstrate change over time as a result of subsequent testing once climate smart farming practices are adopted by the producer. All soil sampling data will be stored in the BSBE database for reporting purposes. KSU will provide testing and analysis services for total soil carbon and labile soil carbon and will conduct Cooperative Extension outreach in Kentucky and beyond as needed. KSU Cooperative Extension focuses on minority, underserved, and small-scale populations through their academic offerings and Extension programs including the Small Scale Farm Grant program and the Third Thursday Sustainability Workshop series; in 2019, Cooperative Extension reports engaging more than 65,000 people through natural resource management projects, training, and support.

KSU will serve as a local, trusted provider for soil carbon testing and analysis for participating Appalachian producers. Through this project, KSU will expand regional

capacity for public CSAF impact monitoring for and beyond the duration of the grant through the expansion of their soil carbon monitoring systems, including the purchase of soil monitoring lab equipment and the funding of critical staff capacity. KSU will measure active carbon using the permanganate oxidizable soil carbon method of Weil et al. (2003) as modified by Lucas and Weil (2012) and will measure total carbon using the dry combustion method of Nelson and Sommers (1996). The data and analysis that KSU generates will be stored in the BSBE database. Upon the conclusion of this grant, KSU will be well established as a soil-carbon monitoring resource for Central and Southern Appalachia, with the appropriate equipment and foundational, baseline data needed to continue CSAF impact monitoring for years to come.

Latent Talent Accelerator is a Central Appalachian-based and founded group that builds strategic plans, operating models, iterative improvement strategies, and match-procurement strategies in partnership with high-impact nonprofits, institutions, companies, and agencies across the region. LTA has unique and significant experience in navigating sustainable practice and CSAF implementation in the region, and proven local skill sets in identifying and growing match opportunities through private, state, federal, and foundation funding. LTA will work directly with all BSBE partners to build and execute a robust and sustainable operational plan that directly supports farmer recruitment, onboarding, compliant reporting, quality assurances, convening planning, participant technical assistance offerings and knowledge management. LTA will also build and support execution of a scaling plan as producer recruitment increases.

GRC Advising is a global brand, marketing, and investment firm that develops marketing and investment strategies that drive social purpose, optimize networks and help scale brands for maximum potential. GRC will create a BSBE landscape analysis and provide a cross-sector, mapped network of marketing channels and potential partners, generate mission-aligned prospect lists for national direct-to-consumer brands, academic and research institutions, institutions in the healthcare, education, and technology sectors, state-level policy makers and governmental leaders, set goal-based growth targets for expanding channel partners across sectors, and build out marketing collateral to be used in potential partner meetings, townhalls, and other speaking engagements--all of which equips ACAP and the BSBE program to share key learning and relevant insights within the USDA's communities of practice.

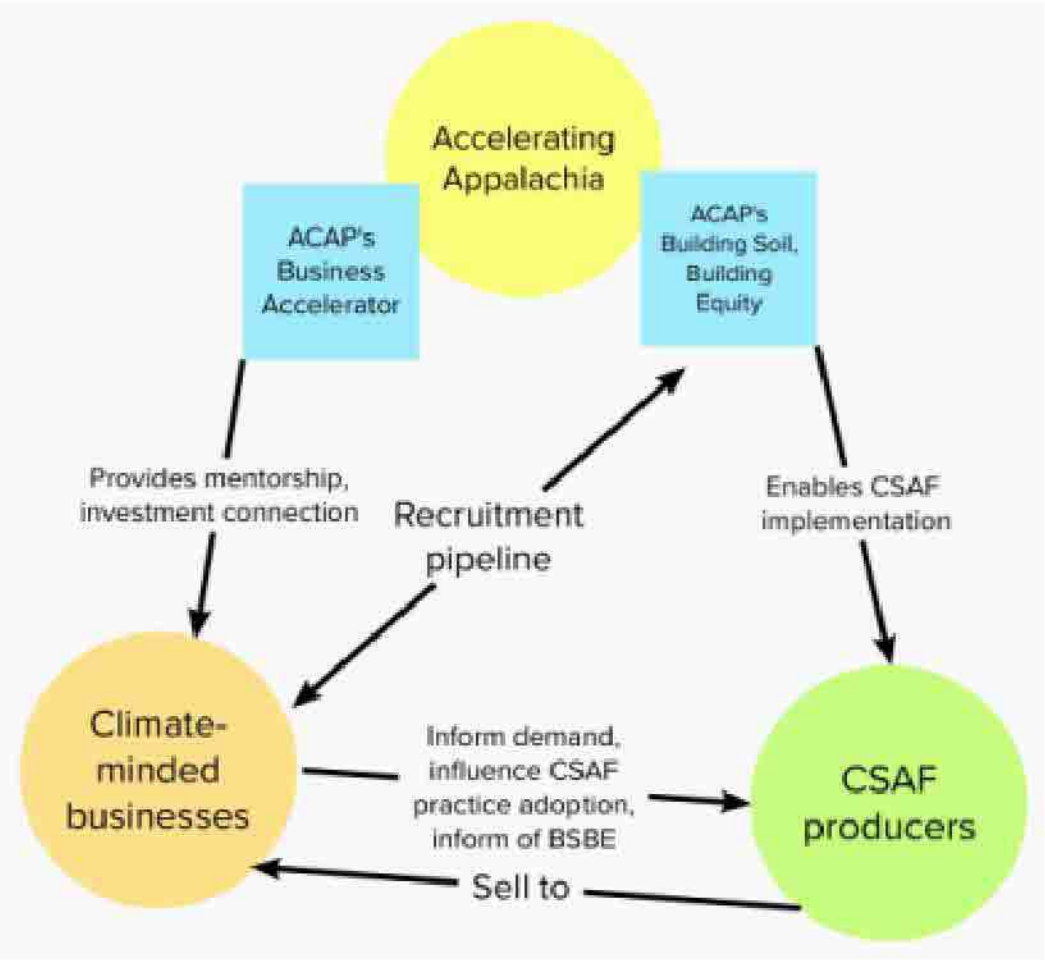
Working Trees is an app-based project created at Stanford's TomKat Center for Sustainable Energy that enables producers to measure and sell the carbon stored in the trees planted in pasture. The app uses data collected through a smartphone and satellite imagery to allow landowners of any acreage to get paid for storing carbon through a validated method for measuring GHG benefits. Working Trees will integrate their app into the monitoring systems of BSBE to collect and report tree carbon sequestration data for the program.

Carbon Harvest is an innovative start-up initiative developing an accountable regional investment platform specific to Southern Appalachia, using regional soil and tree profiles to calculate accurate carbon sequestration benefits. This platform enables global investment in Appalachian producers along the CSAF supply chain. Pilot producers implementing or expanding silvopasture/agroforestry will be selected from the BSBE participant pool to engage in the regional investments through Carbon

Harvest. At least half of pilot participants will represent underserved producers.

Piloting Climate-Smart Agriculture on a Large Scale

BSBE removes barriers for 600 producers across eight Appalachian states to learn about, implement, monitor, and expand climate-smart agriculture practices, products and commodities throughout the supply chain. Accelerating Appalachia (ACAP) approaches resilience and land regeneration by accelerating regional, regenerative manufacturing and production of food, clothing, shelter and health products (basic needs businesses) who are sourcing raw goods from regenerative food, fiber and forest farmers. ACAP exponentially accelerates carbon sequestration by working directly with growth-stage manufacturers to encourage sourcing from a broad diversity of farmers, rather than one or two farmers. ACAP program businesses each source from 2-100+ farmers, so for instance, through 50 businesses ACAP can reach 500-700 farms with education and training.



Doing so:

- Ensures regional supply chain resilience in cases where some farmers face production challenges such that there will still be sufficient supply from other farms;

- Enables ACAP and BSBE partners to exponentially reach and incentivize hundreds of farmers to adopt regenerative and climate smart practices via ACAP buyer networks; and

- Enables a greater likelihood of farmer adoption of regenerative practices when encouraged or even mandated by their buyers.

With Climate Smart funding ACAP and BSBE partners will be able to train, track and report on Climate Smart supply chain carbon sequestration and other metrics from raw goods farmers to their wholesale manufacturers to retail purchasers. ACAP will ensure BSBE program businesses and their farmers are sufficiently trained in Climate Smart practices and branding and agree to participate in required reporting and branding to measure adoption and outcomes over the grant period. Though supply chain tracking from farm to wholesale to retail is within our purview, detailed tracking of retail customer purchasing patterns are somewhat outside of ACAP's locus of control. BSBE team will however explore avenues for gathering and reporting on Climate Smart purchasing patterns through existing retail business-to-customer tracking platforms as well as explore development of ACAP's regional retail customer adoption platform for Climate Smart Farming Practices.

BSBE also creates technical assistance opportunities and materials that will benefit more than 20,000 producers across the nation over and beyond the grant period. The plan will be implemented through the following activities. These activities will overlap and iterate as the project scales and the team responds to new demands or revealed challenges:

Project Design - Upon award, ACAP and LTA will convene the project team to onboard all parties, finalize details, timelines, and responsibilities, and set up project-specific systems including a customer relationship management (CRM) program--as part of the BSBE database--for efficient tracking of all participants, practices, incentive payments, monitoring reports, and preliminary supply chain tracing. The project team will finalize the survey (see Sample BSBE survey in attachments) to be used to assess and inventory existing practices, practices producers are already aware of but not yet implementing, gaps in resources and knowledge to implement practices, and formats in which producers identify it would be most helpful to receive assistance. This will inform NCAT's technical assistance offerings and the project team's strategy to communicate opportunities and collect data throughout the project. Survey completion is part of the enrollment process for the incentive program below. The project team commits to complying with the OMB's Paperwork Burden Reduction act and any determinations made by the OMB concerning the contents of the survey. During this phase, the project team will finalize incentive program eligibility requirements and enrollment processes for participants.

Survey Distribution and Collection - Through their respective networks and managed by ACAP, the project team will distribute the survey among producers in the eight-state project area. As survey responses are collected, the project team will identify and develop specific technical assistance programming and strategies to be added to the existing offerings of NCAT, as the main technical assistance provider, and the BSBE

project team. Survey respondents who indicate interest in the incentive program will be invited to enroll. Particular attention will be paid to encouraging enrollment among producers identified as underserved. Additionally, survey responses will drive the initial programming plan for two BSBE-focused convenings executed during the grant period.

Incentivizing Climate-Smart Practices - All participants in the incentive program will commit to implementing and monitoring a new or expanded climate smart practice on their farm or land for the duration of the grant period in exchange for:

- Reimbursement of costs associated with accessing technical assistance (advances will be available for limited-resource producers);
- Small grants for resources required for implementation; and
- One-time per-acre payments for implementation (note that participating BIPOC farmers will receive a higher incentive rate)

ACAP will manage the disbursement of reimbursements and incentive payments to participant producers.

Additionally, all participants in the incentive program will have access to CSAF-implementation and -maintenance technical assistance provided by the project team, primarily by NCAT through their deep farmer technical assistance experience and grant-enabled expanded capacity. Technical assistance will be provided free of charge in formats identified as useful by producers in their survey; anticipated formats include: hard-copy and digital written technical formats, training webinars and recordings, live virtual assistance, and on-farm/in-person technical assistance and education (including one-on-one and group/field days), and peer-to-peer network education as identified as needed by participating producers.

The project team will provide to participants free technical assistance and support in all aspects of implementation and monitoring of GHG benefits related to the project, including 1:1, small group, and convening offerings.

Incentivizing Climate-Smart Monitoring - In acknowledgement of the added burden to producers of conducting valid monitoring and reporting for this project, BSBE will offer incentives to producers in the form of: Free training and direct technical assistance on

data collection and reporting tools; Per-period payments for successful monitoring data submission(s); and Free soil analysis by KSU.

Successful submission of monitoring data and evidence of implementation, assessed after one year, will qualify producers for additional years of support. For additional insight on farmer experience during this project see “ACAP Farmer Perspective Example” in attachments.

All data and information collected from producers will be stored securely, password protected and behind firewalls. For external-facing data reporting, data will be aggregated and unattributed. As each partner works across existing data sharing systems, they will be fully compliant with privacy policies such as University data sharing agreements, state data sharing laws, etc.

Building a BSBE Climate Smart Network

BSBE partners will co-host two convenings focused on BSBE participants for peer-learning experiences, networking, in-person technical assistance, and collective identification of gaps and needs in widespread CSAF adoption. BSBE convenings will also provide networking space between CSAF producers and existing and potential CSAF product buyers including wholesale and retail buyers, further developing the CSAF supply chain. CSAF buyers will be recruited from ACAP's existing network of start-up and expanding climate-minded businesses that have previously engaged in ACAP's Accelerator program.

Additionally, NCAT will host farmer field days throughout the BSBE geographic footprint through their technical assistance provisions and develop peer-to-peer networks through which farmers will share information and resources with their neighbors to build local networks of knowledge and CSAF competencies and expectations. Farmers hosting field days at their farms will be compensated (see NCAT subaward budget narrative) to share their knowledge with other BSBE attendees with in-person demonstrations and farm tours. Field days will also serve as spaces for networking among technical assistance specialists and producers, interaction between BSBE staff and producers, and feedback from producers to the BSBE team on program design and needs.

Tracking CSAF Commodity Economic Impact

As part of participation in BSBE and access to incentives, producers will report their annual CSAF commodity sales numbers and buyers to enable BSBE to track the economic impact of CSAF commodities and their pathways in wholesale and retail markets. BSBE's Climate Smart Commodities include row crops, beef, pork, fiber and other specialty crops. To the extent possible, BSBE will use existing commodity tracking systems used by wholesale and retail businesses in the BSBE network (as born and developed through ACAP's Accelerator program) to identify an average CSAF pipeline from producer to consumer. This data will be used both to assess the impact of CSAF practices in local markets, but also to further develop climate-minded businesses and their sourcing practices through ACAP's Accelerator program.

BSBE partners will develop an agreed upon system for inventorying the climate smart products and commodities as they go to market and, where able, capture the market-facing relationships that farmers have and/or develop throughout the duration of the BSBE award. This information will live in the BSBE database and will be fully aligned to COMET standards. A landscape analysis of tracking methods will be conducted and, as a result of that analysis, ACAP and NCAT will collaborate to inventory the established supply chain trackers within their networks. Additionally, other, more qualitative, data points will be captured through ACAP's wholesale business relationships and stories that feature the farmers, wholesalers, and their customers. NCAT will create multimedia content through multiple on-farm engagements that will be used by GRC Advising to engage a regional and national audience in BSBE storytelling and thought leadership in the power of the climate smart products and commodities supply chain. Throughout this mixed method for tracking climate smart commodities

throughout the supply chain, BSBE partners will develop emergent and promising innovative practices for measuring, tracking, and communicating the outcomes of the BSBE initiative.

CSAF Practices to be Deployed

The design of BSBE is based around removing barriers to producers to implement CSAF practices on their farms by, in part, making access to CSAF practices technical assistance and learning opportunities free, relevant, and peer-led, thus increasing the likelihood of long-term, adoption and scaling of these practices. In recognition of the wide range of producers and commodities this project will engage - from small truck farms to large row-cropping operations, from early adopters to conventional adherents, from Appalachian mountain farms to Central Kentucky's grasslands - the program is designed to connect producers to the CSAF practice(s) that are best suited to their operation and local context. NCAT will provide responsive technical assistance in the form of written resources, webinars, virtual trainings and in-person trainings, one-on-one technical assistance, and peer learning events for the CSAF practices in this proposal as well as those identified as high demand in the survey. All participants will be encouraged to attend BSBE-participant-specific gatherings for in-person trainings, convenings, and peer site visits.

NCAT will provide technical assistance related to the following NRCS-identified Conservation Practice Standards, listed in COMET-planner and detailed in the attachments: The following practices and codes will be managed through NCAT technical assistance:

- 328: Conservation Crop Rotation (e328 a-o)
- 340: Cover Crops (e340 a-i)
- 345: Reduced Tillage
- 386: Field Borders (e386 a-e)
- 528: Grazing and Pastures (e528 a-m)
- 311: Alley Cropping
- 379: Forest Farming
- 381: Silvopasture
- 391: Riparian Buffers (e391 a-c)
- 422: Hedgerow Plantings
- 612: Tree and Shrub Establishment (e612 b,c,g)
- 645: Habitat Management (e645 b,c.)

NCAT technical assistance providers can also support participants in applying for NRCS funds related to conservation practices.

NCAT will also provide technical assistance and support for producers interested in co-locating solar and sustainable agriculture on their farms through NCAT's AgriSolar program. Farm-based solar, while not directly producing a market commodity, serves the purposes of climate-smart practices by reducing on-farm emissions. Solar pairs easily with CSAF practices, such as alley cropping, pollinator habitats or crops whose roots serve as carbon sinks among the panels. There are no plans to include non-agricultural land. Nor will BSBE engage CAFOs. There is no CSAF practice

planned that will disturb the ground beneath the plow line. All trees planted as part of silvopasture implementation will be planted on existing agricultural land as saplings. In the event a practice identified by a farmer requires ground disturbance below the plow zone, the BSBE team will contact USDA for further instruction.

Technical assistance will be provided by NCAT staff and other partner service providers, such as Working Trees and Carbon Harvest, when applicable. NCAT and BSBE participants anticipate our Technical service to be 40% direct on-farm technical assistance and 60% virtual. Specialists will work directly with farmers for the design and implementation of climate smart practices on their farms.

All BSBE participants will be informed of technical assistance opportunities through BSBE communications, and technical assistance opportunities that are sponsored by but not specific to BSBE participants (such as NCAT's on-farm field days or a virtual training) may also serve as spaces to recruit new producers to BSBE's CSAF incentive program.

BSBE-sponsored technical assistance may be accessed by any BSBE participant through an intentionally varied range of access points. For example, a BSBE participating producer may read about silvopasture in an NCAT newsletter and a linked technical guide and reach out to BSBE about wanting support to implement this practice on their land. The BSBE team will direct an NCAT technical assistance specialist to engage with the producer; this specialist may conduct an on-farm visit or meet virtually with the producer, depending on the producer's interest. With funding to support implementation costs and training and guidance from NCAT, the farmer implements silvopasture on their land and becomes a local model for their neighbors. The farmer is pleased with the results and is excited to share their knowledge and experience with their neighbor, signing up to become a BSBE/NCAT-sponsored peer-to-peer mentor for their neighbors. This farmer hosts field days on their farm and recruits other producers to the BSBE program, where they in turn access CSAF information and implementation support.

Participants may be exposed to and learn how to implement CSAF practices through BSBE-sponsored and NCAT-produced social media, videos and podcasts, newsletters, convenings, field days, peer mentors, and any other outreach methods deemed practical and impactful through the producer survey and BSBE's iterative improvement strategies.

The orientation of the project team is to take a "farmer-first" approach, maximizing funds and efficiencies but ultimately ensuring highest-quality, relevant technical assistance provided to each of our 600 producers whether virtually, in-person, or through dissemination of existing printed, video, or podcast training materials. Given the pursuit of sustainability and long-term project potential, technical assistance efforts and methods are designed to scale impact and minimize cost over time including train-the-trainer models, knowledge capture and dissemination, and building robust peer networks that ultimately operate and thrive with minimal BSBE-sponsored NCAT intervention by the end of the grant period.

Plan to Recruit Producers and Land Owners

Project recruitment will utilize the existing, extensive relationships and networks the project team has maintained with producers in the eight state region to solicit more than 1,500 survey responses. Simultaneously, 600 producers will be enrolled in the incentive program over a four year period, of whom at least 450 will be designated as underserved, with a priority on BIPOC producers. Recognizing the need for all producers to adopt CSAF practices for the greatest impact to our climate, the BSBE program is designed to be responsive to a variety of producer types, from organic to conventional, small to large, mountain-based to flatlands-based, and experienced in CSAF practices to new to CSAF practices.

ACAP and LTA will manage and coordinate the project team in recruitment efforts, and tracking participating population demographics to ensure underserved producer populations have equitable opportunity to participate in BSBE. The project team uses the Economic Development Administration's definition of underserved populations: recipients of SNAP, TANF, and WIC; BIPOC, women, mothers returning to the workforce, formerly incarcerated (justice-impacted and reentry), individuals in opioid recovery, those with disabilities, disconnected youth, veterans, and military spouses.

ACAP will also conduct direct recruitment outreach through strong networks developed over 10 years of their nature-based Business Accelerator Program. Through this program, ACAP has supported and connected with more than 200 businesses, (70% of women-owned and 20% BIPOC owned), across the project area that use commodities to create local market products such as organic granola, organic flour, malt for brewing and distilling, pastured pork and beef, medical teas, natural textiles, sausages, tempeh, skin care products, and clothing. All businesses participating in ACAP's Business Accelerator have committed to reducing their impact on the climate through mindfully sourcing their products from local producers using climate-smart practices. Through these businesses, ACAP will recruit 150 producers who are already providing their commodities to these climate-minded businesses to participate in the incentive program and, by doing so, adopt new or expand existing climate smart practices. The BSBE team will also partner with these businesses to monitor the pathways of CSAF products from producer to consumer - data that will inform further CSAF commodity pipeline development strategies and enable CSAF products to reach broader markets and increase demand for CSAF commodities.

ACAP has also developed a deep and broad network of more than 130 businesses, nonprofit, and government agency partners across the eight state project area that are each connected to numerous producers. For example, ACAP's partner, Community Farm Alliance (CFA) is a Kentucky-based nonprofit providing programming and policy support to Kentucky farmers. CFA has a network of more than 1,000 small-scale farmers impacted by their Farmers Market Support program and 70 Black farmers participating in their Black Farmer Network. As demonstrated in their letter of support, they have committed to distributing BSBE recruitment materials through their network communication systems.

NCAT has been serving underserved communities and producers with resources to develop and expand sustainable agriculture practices since 1987. Each year, NCAT's sustainable agriculture resources program, ATTRA (Appropriate Technology

Transferred to Rural Areas) reaches farmers in every corner of the country. For example, ATTRA's Voices from the Field podcast series reaches more than 35,000 people, and website resources are accessed more than 1 million times per year. Weekly emailed newsletters are sent to more than 20,000 people, and another 25,000 across social media channels. Specific to the eight state project region, there are 3,293 people in the NCAT email database who would receive outreach.

NCAT will distribute BSBE recruitment materials through NCAT's broad-reaching, high-impact communications and marketing resources. Using this strategy, the project team anticipates recruiting 300 producers to the Incentive Program. Additional support will be provided by GRC Advising--a marketing and investment strategies firm that drives social purpose, optimizes networks and helps scale brands for maximum potential--to disseminate these materials and opportunities, while also telling the story of and elevating individual producers in the network that adopt climate-smart agricultural practices, more broadly across the geographic region previously stated. GRC Advising will develop an inventory of marketing channel partners and set goals for expanding the in- and out-of-BSBE-network relationships and commitments. Additionally, GRC Advising will place BSBE content and engagement opportunities in publications to increase farmer recruitment year-over-year. The expanded marketing plan is as follows, as is capture alongside project milestones and projected expenditures in a seperate attachment to this narrative titled "USDA BSBE Milestone and Benchmark Document"

CONTENT DEVELOPMENT/STORYTELLING

- BSBE's Climate Smart Commodities digital presence will nest under the ACAP parent brand infrastructure and serves as a NEW content tactic as a part of the larger content strategy.
- Create a regional database of BIPOC and underserved farmers within the region, capturing their individual stories that align with Accelerating Appalachia's mission.
    - ○ Identify and record interviews with BSBE farmers.
    - ○ Capture pre-BSBE engagement stories.
    - ○ Conduct bi-annual progress interviews.
- Leverage CEO's technical expertise to create BSBE-relevant Climate Smart Commodities content.
    - ○ Topics: climate-smart commodities, regenerative agriculture, regional resilient production/manufacturing, JEDI, biodiversity, and Appalachia.
    - ○ Collaborate with the National Center for Appropriate Technology (NCAT) to develop content highlighting the intersections of sustainable energy, sustainable agriculture, and food with race and equality.
- Guide diversity, equity, inclusion, and justice in ACAP and BSBE marketing.
    - ○ Highlight additional support and funding for BIPOC farmers in Appalachia Marketing content related to ACAP-BSBE commodities:
    - ○ Partner with existing and new wholesalers to develop content that highlights increased purchases of BSBE Climate Smart produce/commodities:
- Measure purchase behavior changes from nutrient-deficient foods to

nutrient-dense food.
- Support increasing the national population percentage of farmers.
- Survey farmer networks to define improved mental health conditions based on climate-smart farming practice integration and outcomes.

MARKETING ASSETS

- Outline strategic priorities for ACAP-BSBE marketing channels
    - Current Channels: Website, Website Blog, Facebook, Instagram, Twitter, LinkedIn, Crunchbase, Email Newsletter Ecosystem, Medium, NCAT newsletters, publications, social media handles
    - Potential New Channels: Clubhouse; YouTube; Pinterest* (*if desired); Apple Podcasts; Spotify; Resource Guide.
- Develop a content calendar to share ACAP-BSBE content on various marketing platforms: website, digital media
    - Develop a bank of content: including case studies, infographics, testimonials, seasonal updates, and guidance.
    - Digital media elements are ACAP-BSBE packaged and branded.
- Develop a BSBE-focused newsletter to be deployed twice a year.
    - Highlight farmer stories, update high-priority stakeholders on the grant's progress, and attract more farmers and wholesalers to the program.
- Digital Media Strategic Guidance and Tactical Support
    - Steer ACAP's social media activities from a strategically designed plan up integration of refined creative design, voice tone & manner.
    - Unified sharing platform for BSBE and all associated partners such as Buffer.
    - Guide media buying budget and support planning to maximize placements and work with best practice vendors when necessary.
    - Enable micro-targeting for specific audiences, geofencing other conferences, events, and contextual keyword advertising on various platforms.
- Develop a corporate relations strategy for BSBE targeting companies with CSR initiatives or making BSBE the beneficiary of corporate giving.
    - Maximize using ACAP's pre-existing networks to introduce and build a strategy for BSBE's climate-smart solutions.

STRATEGIC PARTNERSHIPS

- Leverage ACAP's partner ecosystem to provide BSBE partners: farmers, buyers, and wholesalers with access to Climate Smart Commodities marketing support.
- Identify and source partnerships that extend BSBE's BIPOC and JEDI focus outside of the industry: Latinx, Black, and Asian Chambers of Commerce, HCBUs, LULAC, NAACP, The United Kingdom Commonwealth Youth, and Economic Empowerment Divisions. - Facilitate the cross-pollination of farmer networks with

food processors, distributors, wholesalers, and buyers through BSBE efforts.

- ○ Tracked outcomes from commodity-related partnerships become immediate content examples. Use as proof of concept for other similar potential partners.

● Sharing ACAP-BSBE Climate Smart Commodities content with strategic partners' external media sources for placements, such as Echoing Green and Patagonia.

● Strategic partnerships' digital indexing on another organization's website increases brand awareness and digital presence.

ACAP/BSBE CONFERENCES

● Invite-only forum engagements will include the creation of two conferences and new events where ACAP can represent the industry and host BSBE participants and other active, external partners within the associated industries.

- ○ The purpose of the conferences is to elevate ACAP's historic reputation for enabling Appalachian farmers and demonstrate the active role of BSBE in the growth of their business, improvement in soil utilization, best practices for regenerative agriculture, and the promotion of Climate Smart Commodities. The conference will serve as a face-to-face marketing solution to build peer-to-peer support.
- ○ Participants will support BSBE by facilitating relationships between farmers and farmer networks to food processors, distributors, wholesalers, buyers, investors, and mentors. - Conferences will be held in November 2023 and November 2025 with an average attendance of approximately 300 people. ○ Plan and organize the conferences.
- ○ Manage vendors that provide management and logistics services.
- ○ Partner with ACAP to develop budgets and contingencies.
- ○ Design and source all marketing materials, gifts and promotional needs.
- ○ Engage thought leaders and speakers.

PUBLIC RELATIONS

● Identify influencers in the GRC Advising ecosystem to amplify ACAP's BSBE climate smart commodities efforts locally, regionally, and globally.

● Source local, regional, and global media opportunities to increase the visibility of ACAP, BSBE, and Climate Smart Commodities with a heavy focus on specific channels such as longer-lead exposes and profiling farmers through mixed media to elevate the USDA project.

- ○ Local
  - ■ Local TV & radio stations such as ABC, NBC, FOX and CBS affiliates (TV) and NPR
  - ■ Other Publications such as The Lane Report, Kentucky Monthly,

        - State Operated Extension Offices
        - Local Nonprofits impacting the Food System, such as Foundation for Appalachian Kentucky, FFA
    - National Industry Journals
        - Farm Journal, Young Farmers, Regenerative Food Systems Investment News, Common Future, Bloomberg BusinessWeek, Fast Company
    - Global
        - Disney and National Geographic, Echoing Green, Thought for Food
- Media Relationships
    - Outlets
        - Univision, Telemundo, BET, Forbes, Green.org, Reuters, Vote.org - Work with the CEO to capture and strengthen the regenerative farming, JEDI, and Central Appalachia messages that will drive Accelerating Appalachia's broad mission.
    - Source speaking and podcasting opportunities for ACAP leadership and BSBE participants to highlight the program:
        - Sustainable Brands, NationSwell, Bloomberg, Women in Ag Summit, Ag Tech Nexus Conference, Future of Food, The Commonwealth Club, Young Farmers, Echoing Green*, Common Future*
        - BIPOC-focused engagement

High-level strategies for Farmers, Wholesalers, and Consumers

- ACAP's BSBE project and associated grant-funded partners will track everything from seed until it reaches the end consumer.
- Consumer data will require further investment from the USDA exploring consumer behavior related to Climate Smart Commodities across an eight-state region.
- The ultimate focus leans on the marketability of farmers/producer outcomes and the lasting impact created by the project.
- Each layer will signal the next tier:
    - Farmers to Wholesalers.
        - Wholesalers to Farmers.
            - Wholesalers to Customers.
                - Customers to Wholesalers.
- The circularity enables scalable, long-term success while identifying opportunities to improve the Climate Smart Commodities supply chain.

Marketing to Farmers

Positioning ACAP's esteemed history and reputation in regenerative agriculture will be crucial when highlighting immediate solutions for farmers. GRC Advising will create content, assets, and branded elements focused on farmers' successes, including BIPOC examples. These could be a resource library on the website, email marketing campaigns, training and webinars, or social media strategies centered on

educating farmers. These tactics will raise awareness of regenerative agriculture practices and climate-smart solutions amongst local farmers.

GRC Advising will work with specific farmer alliances like SURREF (Sustainable Rural Regenerative Enterprises for Families), a collection of 30+ black farmers on regenerative agriculture-based south Appalachians to deliver BSBE solutions and opportunities to the participating farmers. Measurable impacts include sales increases potential such as direct-to-consumer online, CSA's, delivery, groceries, restaurants, and retailers for the commodities they produce, including fruit, vegetables, beef, pork, chicken, grains, herbs, and flowers.

Marketing to Wholesalers
BSBE will feature participating wholesalers encouraging climate smart branding, farmer/grower opportunities, such as increasing direct sales, sharing relationships, and reaching new markets and customers.

Example: Heartland Chia is a strong example of this. As the patent owner and only chia producer and manufacturer in North America, this farm network includes 10+ farmers in Kentucky and Tennessee. Their chia seeds are sold to wholesale purchasers, including grocers like Kroger and Rainbow Blossom, and independent restaurants with direct online sales.

Example: Carolina Ground works with farmers across North Carolina, Virginia, and South Carolina who sell directly to consumers online. As a manufacturer of organic flour with grains sourced entirely from farmers in the southeast, they service bakeries and other retail outlets with
regenerative approaches to shorten the supply chain. Focusing on the source of production and supply chain minimization supports a powerful local and regional message.

Marketing to Customers
GRC Advising will target the following consumer demographics:

- Buyers with BIPOC and sustainability interests.
- Conscious consumers: biohackers, health and wellness professionals, and influencers, usually in the Millennial and Gen Z generations.
- Cost-conscious consumers that want affordable local produce.
- Consumers who want to "shop local and regional."

Additionally, Kentucky State University, a historically black land-grant university that primarily serves Kentucky's minority and underserved farmers, will use the communications and networks of the Kentucky Cooperative Extension Service to conduct outreach to the more 65,000 participants in Cooperative Extension's natural resource protection programs. Using this strategy, the project team anticipates recruiting at least 50 producers to the Incentive Program.

With a total existing reach of more than 100,000 producers in the project team's collective networks across the eight state region, the project team anticipates receiving survey responses from at least 1,500 respondents and convert 600 survey respondents to enroll in the BSBE Incentive Program (6000 program participants representing more than 65,000 acres. Of those enrolled, the project team is committed to 75% representation of underserved communities and representation from each of the eight states in the project area.

The project team aims to recruit 500 producers to the BSBE Climate Smart Incentive Program over the first three years of the project (and an additional 100 in Year 4), reflecting time needed at the beginning of the grant period to onboard new staff, establish and improve systems, and begin recruitment efforts. (Year 5 will not onboard new producers as it will be dedicated to monitoring, case study collection, results reporting, and transitioning to funding external to the grant.) As detailed above, NCAT and ACAP will both leverage their existing networks of regional farmers as an initial recruitment method. In addition to the direct technical farmer assistance, NCAT will also be hosting up to seven, on-farm field day training events that will allow producers to experience climate smart agricultural practices in a practical hands-on setting with their peers. This word-of-mouth, peer-to-peer approach has cultural relevance and proven impact in Central Appalachian cross-regional farmer networks and will serve to recruit additional producers throughout the program duration.

NCAT staff will also manage several producer-led bi-monthly peer to peer educational cohort meetings. These groups will be supported by staff, but educational curriculum and needs will be derived from the producers. The goal is for these specific educational cohorts to allow the producers to build strong support relationships that will continue on after the funding period expires.

Beyond the scope of the grant, LTA and ACAP will continuously seek additional funding

to expand the number of producers the program can serve and continue to use these recruitment strategies to serve as many producers as possible on a schedule aligned with the availability of incentive resources. For example, recruitment efforts will be reduced as grant funds dedicated for incentives are committed to participating producers, but will be increased again as other funding supporting the incentives is allocated.

CSAF Investment Development

ACAP and BSBE partners will exponentially build on ACAP's global network of 10,000+ followers, mentors, and investors to establish a robust network of funders and investors in climate smart farming and commodities that prioritizes and values just relationships along the supply chain. Examples of ACAP investors, promoters and supporters include:

- Patagonia, with a global promotion platform of millions of customers worldwide and whose ActionWorks program regularly promotes ACAPs work;
- Echoing Green, the world's largest social enterprise investor supports ACAP with

a lifetime fellowship and promotes ACAP's efforts through their global network;

- ACAP's CEO will also leverage her fellowship with Common Future, a 15 year North American social impact investor;
- ACAP will engage with Social Capital Markets (SOCAP), the world's largest convening of impact investors and social enterprises to promote BSBE. SOCAP founders were ACAP's earliest investors.
- ACAP's will also engage the Appalachian Regional Commission, with a regional network of millions (and ACAP's second investor) in the promotion and outcomes of BSBE climate smart activities.

These are just a few of ACAP's extensive network of followers and promoters that we will engage in BSBE marketing and promotion. These relationships will extend beyond the BSBE award and will promote sustainability around regionalized, regenerative economies that are resilient. Outside investments and other resources will be leveraged to directly support farmers/producers and climate smart markets. In order to enact this vision, the BSBE will kickstart the construction of a ten year plan that creates a thought leading doer-ship network of climate smart aligned stakeholders through routine forums, convenings, demonstration projects, public-private partnerships and productive full supply chain relationships.

Plan to Provide Financial Assistance for Producers

In addition to direct in-person and virtual technical assistance provided through NCAT's BSBE-sponsored technical assistance specialists, BSBE provides financial assistance for producers to implement practices and remove barriers to CSAF adoption through five strategic funds, each of which provides additional incentives for BIPOC producers. All funds are available to participating producers; producers will be able to apply through a simple form maintained as part of the BSBE database. A producer might not access all funds, but will be encouraged to through regular reviews of the BSBE database and producer engagement. For example: a farmer who enrolls in the BSBE program in year 1, implements CSAF practices on 25 acres, submits their monitoring reports twice a year, and attends 2 field days per year and both BSBE convenings could receive $10,500 in financial assistance from BSBE. BSBE will make these funds (except the Monitoring Fund, which will run all 5 years) available in Years 1-4. Year 5 will be dedicated to monitoring, case study collection, and transitioning to funding external to the grant.

1. <u>BSBE Convening Travel and Lodging Fund</u>: Eliminate the cost of attending BSBE's Convenings in Year 2 and Year 4. These convenings will bring together BSBE participants and technical assistance providers for in-person CSAF learning and knowledge exchange and network BSBE participants with more than 30 climate-minded mentors and potential investors that are already engaged in ACAP's Accelerator networks. BSBE Convenings have no registration costs.
2. <u>Farmer Field Day Access Fund</u>: Eliminate the cost of accessing technical assistance through reimbursing the cost of travel, lodging, and food required

to attend BSBE-sponsored and other CSAF-focused in-person trainings (e.g. NCAT workshops, farmer field days, etc), industry conferences, and certification classes.

3. Farmer Implementation Incentive Fund: Provide direct incentives to 600 producers to implement CSAF practices. Incentives will be paid based on the practice implemented per-acre, verified through photo/video evidence submitted annually. Incentives will be increased for underserved producers.

4. Farmer Implementation Resource Grant Fund: Offer small grants to producers to cover the cost of resources required to implement climate-smart practices, such as the cost of trees for establishing a silvopasture patch.

5. Farmer Monitoring Incentive Fund: Provide direct incentives to producers to collect and submit valid carbon and GHG monitoring data. Incentives will be paid upon successful submission.

Incentives will be managed by dedicated ACAP BSBE staff and primarily dispersed through direct deposit to ensure low transaction costs and quick turnaround. Other forms of disbursement will be available for low-resource producers if needed. Producers will be eligible for financial assistance after enrollment, which requires completion of the survey, confirmation that they have controlled access to the land on which they plan to implement practices, submission of their farm number, verification that their farm complies with wetlands protections, and verified assertion and documentation that they will not receive double benefits by reporting the same benefits to another program.

In addition to the above funds, BSBE producers will have access to ACAP's regenerative agriculture directory representing resources including videos, research papers, how-to guides, and more. Producers will also be connected to ACAP's extensive network of investors and mentors, each of whom has committed to providing several hours of pro-bono assistance/guidance to participating producers on topics such as safely financing business expansion, creating an investment pitch, and more.

Through the BSBE Convening Fund, BSBE Convenings are-invite only and designed to build regenerative climate smart branding, marketing, peer and mentor support for farmers and commodity producers and manufacturers, as well as build long term investment in BSBE regenerative, climate smart farmers and commodity companies. Since their launch in 2013, ACAP has hosted successful annual convenings with their program participants (farmers, commodity companies) and invited peers, mentors, customers and investors (the exception being 2 years of COVID outbreaks, making in-person convenings unadvisable).

The results of our program cohort follow-on surveys consistently rank ACAP's top benefits to be the peer, mentor and investor support they provide to our farmers and businesses. ACAP convenings are the sole opportunity to bring together all program participants and supporters; farmers, buyers, mentors, lenders and investor network and are proven to be critical for both connecting their growers and commodity businesses to long term success and critical to continue as they scale to reach more farmers and commodity businesses. From their testimonials page: "Accelerating Appalachia created a unique opportunity for Riverbend Malt House to interact with the successful

entrepreneurs, finance professionals, and business leaders throughout our region. Those interactions helped guide our company through a period of explosive growth that continues to the present day. Accelerating Appalachia creates a bridge between the new wave of nature based businesses and an amazing array of mentors, venture capitalist firms, and business leaders who are eager to support a more durable, localized economic model for our region." -Brent Manning, CEO Riverbend Malthouse

ACAP has been building regional resilience for a decade through connecting farmers and commodity businesses to one another, to mentors, to the media, to potential investors and lenders. In the spirit of building Climate Smart Partnerships, the biennial convenings will provide ACAP the opportunity to scale our regional resilience ten-fold, the opportunity to grow sponsorships, provide a platform for sharing best practices, capture video and farmer stories, provide farmers and commodity businesses with necessary marketing & branding training and the peer and investor support necessary to ensure consistency and long term success for regenerative climate smart markets.

Plan to Track and Monitor

ACAP will be responsible for participant eligibility verification, enrollment in the incentive program, and verifying, recording, disbursing, and tracking incentive payments. The ACAP Chief Data Officer will design a purpose-built, secure database and CRM interface to create a robust and reliable method of storing and retrieving data. The database and its interfaces will be built to facilitate efficient workflows pertaining to gathering, analysis and reporting of data, as well as participant management and compliance. Project partners will provide ACAP with participant data needed to effectively track participation in technical assistance and implementation.

GRC Advising will perform comprehensive research to create, baseline, and benchmark Key Performance Indicators (KPIs) to better analyze the full economic benefits and lasting impact of the BSBE initiative. These KPIs will form the basis of an economic, social, and environmental benefit framework that incorporates traditional measures (i.e. revenue generated from climate smart commodities) as well as broader resilience indicators grounded in the communities in which producers operate. GRC Advising will generate regional case studies, conduct further research to better understand the messaging and marketing implications of the climate smart commodities on customer purchasing behaviors, and create infographics to express these findings.

Plan to Enroll Underserved and Small Producers

BSBE is designed to reach, enroll, and empower underserved producers across Appalachian states to implement climate-smart practice, focusing on commodities that include row crops, beef, pork, fiber and other specialty crops. The project team is intentionally comprised of partners with missions to serve underserved communities to ensure service delivery is appropriate for the communities BSBE intends to serve.

Of the 600 producers the project will serve, over 75% - or 450 - of participating producers will meet the definition of underserved as defined by the EDA, and approximately 75% - or $7.5 million - of the BSBE Convening Travel and Lodging Fund;

Farmer Field Day Access Fund; the Farmer Implementation Incentive Fund; the Farmer Implementation Resource Grant Fund; and the Farmer Monitoring Incentive Fund; and the ACAP Business Accelerator/Mentor Services will assist underserved populations implementing climate-smart practices.

Measurement/Quantification, Monitoring, Reporting, and Verification

BSBE will use multiple science-based measurement, monitoring, reporting, verification (MMRV) systems (listed below) to help producers learn how to monitor their farms and to collect impact data for the project. Producers will receive an incentive payment for every complete report they send, up to twice per year. The project team has dedicated capacity to ensure direct technical assistance that all listed MMRV systems are available for producers for onboarding and troubleshooting.

The following USDA provided metrics will be used to measure and report quarterly progress:

Required Quantitative Targets by Quarter (Cumulative)

Number of producers involved

1. Year 1 (2023)
    a. Q1 - 0 (grant start-up)
    b. Q2 - 0 (grant start-up)
    c. Q3 - 75 producers supported
    d. Q4 - 150 producers supported
2. Year 2 (2024)
    a. Q1 - 150
    b. Q2 - 250
    c. Q3 - 250
    d. Q4 - 300 producers supported
3. Year 3 (2025)
    a. Q1 - 300
    b. Q2 - 350
    c. Q3 - 350
    d. Q4 - 500 producers supported
4. Year 4 (2026)
    a. Q1 - 500
    b. Q2 - 550
    c. Q3 - 550
    d. Q4 - 600 producers supported
5. Year 5 (2027)
    a. Q1 - 600 maintained with no new farmers/acreage

b. Q2 - 600

c. Q3 - 600

d. Q4 - 600 producers supported

Number of underserved producers involved

1. Year 1 (2023)
    a. Q1 - 0 (grant start-up)
    b. Q2 - 0 (grant start-up)
    c. Q3 - 50
    d. Q4 - 75 underserved producers supported
2. Year 2 (2024)
    a. Q1 - 100
    b. Q2 - 125
    c. Q3 - 125
    d. Q4 - 150 underserved producers supported
3. Year 3 (2025)
    a. Q1 - 175
    b. Q2 - 200
    c. Q3 - 200
    d. Q4 - 250 underserved producers supported
4. Year 4 (2026)
    a. Q1 - 275
    b. Q2 - 300
    c. Q3 - 300
    d. Q4 - 325 underserved producers supported
5. Year 5 (2027)
    a. Q1 - 325 maintained with no new farmers/acreage
    b. Q2 - 325
    c. Q3 - 325
    d. Q4 - 325 underserved producers supported

Number of acres involved

1. Year 1 (2023)
    a. Q1 - 0 (grant start-up)
    b. Q2 - 0 (grant start-up)
    c. Q3 - 3250
    d. Q4 - 6500 acres involved
2. Year 2 (2024)

a. Q1 - 12000
b. Q2 - 16000
c. Q3 - 20000
d. Q4 - 26000 acres involved

3. Year 3 (2025)
    a. Q1 - 35000
    b. Q2 - 40000
    c. Q3 - 45000
    d. Q4 - 52000 acres involved
4. Year 4 (2026)
    a. Q1 - 56000
    b. Q2 - 60000
    c. Q3 - 62000
    d. Q4 - 65000 acres involved
5. Year 5 (2027)
    a. Q1 - 65000 maintained with no new farmers/acreage
    b. Q2 - 65000
    c. Q3 - 65000
    d. Q4 - 65,000 acres involved

Dollars provided to producers

1. Year 1 (2023)
    a. Q1 - $0 (grant start-up)
    b. Q2 - $0 (grant start-up)
    c. Q3 - $505,275
    d. Q4 - $1,040,550 distributed over the course of year one
2. Year 2 (2024)
    a. Q1 - $1,694,775
    b. Q2 - $2,339,700
    c. Q3 - $2,834,625
    d. Q4 - $3,817,950 distributed over the course of years one and two
3. Year 3 (2025)
    a. Q1 - $4,704,625
    b. Q2 - $5,462,500
    c. Q3 - $6,110,375 distributed over the course of the first three years
4. Year 4 (2026)
    a. Q1 - $7,765,700

b. Q2 - $8,450,750

c. Q3 - $8,803,400

d. Q4 - $9,707,750 distributed over the course of the first four years

5. Year 5 (2027)

a. Q1 - $9,382,250

b. Q2 - $9,442,250

c. Q3 - $9,442,250

d. Q4 - $9,502,250 distributed over the course of the BSBE

GHG Benefits (Metric Tons of CO2e Reduced or Sequestered)

1. Year 1 (2023)

a. Q1 - 0

b. Q2 - 0

c. Q3 - 50,000

d. Q4 - 146,510 tons of carbon

2. Year 2 (2024)

a. Q1 - 183,000

b. Q2 - 220,000

c. Q3 - 256,000

d. Q4 - 293,020 tons of carbon

3. Year 3 (2025)

a. Q1 - 345,000

b. Q2 - 397,000

c. Q3 - 449,000

d. Q4 - 501,481 tons of carbon

4. Year 4 (2026)

a. Q1 - 539,000

b. Q2 - 575,000

c. Q3 - 611,000

d. Q4 - 647, 981 tons of carbon

5. Year 5 (2027)

a. Q1 - 669,000

b. Q2 - 690,000

c. Q3 - 711,000

d. Q4 - 732,500 tons of carbon

Number of new marketing channels established*

1. Year 1: Two new, digital channels per year/for the first two years of the program
2. Year 2: Two new, digital channels, for a total of at least four new marketing channels
3. Year 3: In year three, these new marketing channels will be expanded
4. Year 4: In year four, these marketing channels will be expanded
5. Year 5: In year five, these marketing channels will be expanded

Number of marketing channels expanded. *Note: Marketing channels can be a wide range e.g. selling to food processors, distributers, direct to consumer.*

1. Year 1: At least two pre-existing marketing channels will be expanded
2. Year 2: At least six pre-existing marketing channels will be expanded
3. Year 3: At least eight pre-existing marketing channels will be expanded
4. Year 4: At least ten pre-existing marketing channels will be expanded
5. Year 5: At least ten pre-existing marketing channels will be expanded

Number of measurement tools utilized

1. Year 1: Soil testing calculating carbon sequestration in soil (Kentucky State University), Smartphone and satellite imagery calculating carbon sequestration in trees (Working Trees), and COMET-Farm
2. Year 2: Soil testing calculating carbon sequestration in soil (Kentucky State University), Smartphone and satellite imagery calculating carbon sequestration in trees (Working Trees), and COMET-Farm
3. Year 3: Soil testing calculating carbon sequestration in soil (Kentucky State University), Smartphone and satellite imagery calculating carbon sequestration in trees (Working Trees), and COMET-Farm
4. Year 4: Soil testing calculating carbon sequestration in soil (Kentucky State University), Smartphone and satellite imagery calculating carbon sequestration

in trees (Working Trees), and COMET-Farm

5. Year 5: Soil testing calculating carbon sequestration in soil (Kentucky State University), Smartphone and satellite imagery calculating carbon sequestration in trees (Working Trees), and COMET-Farm

Other Required Benchmarks that may be quantitative or qualitative:

Outreach, training and other technical assistance

1. Year 1: Four to eight field days, centering specific Climate Smart Farming Practices, per year to be hosted regionally to serve multiple states, 12 online offerings, 12 peer-to-peer learning events
2. Year 2: Four to eight field days, centering specific Climate Smart Farming Practices, per year to be hosted regionally to serve multiple states, 12 online offerings, 12 peer-to-peer learning events, one national convening
3. Year 3: Four to eight field days, centering specific Climate Smart Farming Practices, per year to be hosted regionally to serve multiple states, 12 online offerings, 12 peer-to-peer learning events
4. Year 4: Four to eight field days, centering specific Climate Smart Farming Practices, per year to be hosted regionally to serve multiple states, 12 online offerings, 12 peer-to-peer learning events, one national convening
5. Year 5: Four to eight field days, centering specific Climate Smart Farming Practices, per year to be hosted regionally to serve multiple states, 12 online offerings, 12 peer-to-peer learning events

Other MMRV and supply chain traceability attributes

1. Year 1: Establish a data system and workflow to accomplish the following:
    a. Creation of forms, interfaces, and/or workbooks for the reporting of all MMRV criteria that will be stored within the BSBE database for quantification, analysis, and reporting
    b. Creation of forms, interfaces, and/or workbooks for the reporting or sales of commodities, and all requisite marketing data
    c. Training of partners and producers in the use of said forms,

interfaces, and workbooks, resulting in 250 completed forms in year one

d. Generation of quarterly reports on metrics outlined in this document and an annual report that includes summative analysis of short-term and long-term program impact on producers, agriculture and carbon markets, and GHG reductions

e. Integration of advanced analytical tools and reporting dashboards into the BSBE database to allow for improved impact analysis and strategic decision making

f. Production of data submission help/training guides to assist producers and partners with data submissions on a larger scale and as producer enrollment increases

g. Creation of criteria for improving BSBE data systems as needed

2. Year 2: Management of the BSBE data system and workflow to accomplish the following:

a. Management of forms, interfaces, and/or workbooks for the reporting of all MMRV criteria stored within the BSBE database for quantification, analysis, and reporting

b. Management of forms, interfaces, and/or workbooks for the reporting or sales of commodities, and all requisite marketing data

c. Training new partners and producers in the use of said forms, interfaces, and workbooks, resulting in 400 completed forms in year two

d. Generation of quarterly reports on metrics outlined in this document and an annual report that includes summative analysis of short-term and long-term program impact on producers, agriculture and carbon markets, and GHG reductions

e. Integration of advanced analytical tools and reporting dashboards into the BSBE database to allow for improved impact analysis and strategic decision making

f. Production of data submission help/training guides to assist producers and partners with data submissions on a larger scale and as producer enrollment increases

g. Deploying improvement cycles of BSBE data systems as needed

3. Year 3: Management of the BSBE data system and workflow to accomplish the following:
    a. Management of forms, interfaces, and/or workbooks for the reporting of all MMRV criteria stored within the BSBE database for quantification, analysis, and reporting
    b. Management of forms, interfaces, and/or workbooks for the reporting or sales of commodities, and all requisite marketing data
    c. Training new partners and producers in the use of said forms, interfaces, and workbooks, resulting in 500 completed forms in year two
    d. Generation of quarterly reports on metrics outlined in this document and an annual report that includes summative analysis of short-term and long-term program impact on producers, agriculture and carbon markets, and GHG reductions
    e. Integration of advanced analytical tools and reporting dashboards into the BSBE database to allow for improved impact analysis and strategic decision making
    f. Production of data submission help/training guides to assist producers and partners with data submissions on a larger scale and as producer enrollment increases
    g. Deploying improvement cycles of BSBE data systems as needed
4. Year 4: Management of the BSBE data system and workflow to accomplish the following:
    a. Management of forms, interfaces, and/or workbooks for the reporting of all MMRV criteria stored within the BSBE database for quantification, analysis, and reporting
    b. Management of forms, interfaces, and/or workbooks for the reporting or sales of commodities, and all requisite marketing data
    c. Training new partners and producers in the use of said forms, interfaces, and workbooks, resulting in 600 completed forms in year two
    d. Generation of quarterly reports on metrics outlined in this document and an annual report that includes summative analysis of short-term

and long-term program impact on producers, agriculture and carbon markets, and GHG reductions

e. Integration of advanced analytical tools and reporting dashboards into the BSBE database to allow for improved impact analysis and strategic decision making

f. Production of data submission help/training guides to assist producers and partners with data submissions on a larger scale and as producer enrollment increases

g. Deploying improvement cycles of BSBE data systems as needed

5. Year 5: Management of the BSBE data system and workflow to accomplish the following:

a. Management of forms, interfaces, and/or workbooks for the reporting of all MMRV criteria stored within the BSBE database for quantification, analysis, and reporting

b. Management of forms, interfaces, and/or workbooks for the reporting or sales of commodities, and all requisite marketing data

c. Generation of quarterly reports on metrics outlined in this document and an annual report that includes summative analysis of short-term and long-term program impact on producers, agriculture and carbon markets, and GHG reductions

Other measurements of work related to marketing of commodities

1. Year 1: Two new wholesaler, buyer relationships per year for duration of grant
2. Year 2: Two new wholesaler, buyer relationships, for a total of at least four market-bound relationships
3. Year 3: Two new wholesaler, buyer relationships, for a total of at least six market-bound relationships
4. Year 4: Two new wholesaler, buyer relationships, for a total of at least eight market-bound relationships
5. Year 5: Two new wholesaler, buyer relationships, for a total of at least ten market-bound relationships

Demonstrated engagement of major partners

1. Year 1: 12 virtual meetings, two face-to-face meetings, up to four attended partner events, at least six cross-promoted marketing engagements, and at least two new

strategic partnerships facilitated per year

2. Year 2: 12 virtual meetings, two face-to-face meetings, up to four attended partner events, at least six cross-promoted marketing engagements, and at least two new strategic partnerships facilitated per year

3. Year 3: 12 virtual meetings, two face-to-face meetings, up to four attended partner events, at least six cross-promoted marketing engagements, and at least two new strategic partnerships facilitated per year

4. Year 4: 12 virtual meetings, two face-to-face meetings, up to four attended partner events, at least six cross-promoted marketing engagements, and at least two new strategic partnerships facilitated per year

5. Year 5: Six virtual meetings, two face-to-face meetings, and at least six cross-promoted marketing engagements

Climate smart technologies employed (if applicable)

1. Not applicable to the current BSBE strategic plan. If applicable at a later date, additional indicators will be created.

Quantification of GHG Benefits

The MMRV systems are scalable and low-cost and reflect the project's aim to reach a broad range of producers and encourage the implementation practices most relevant and accessible to their farm and commodity(ies). Participants in BSBE will use:

● COMET-Planner to determine estimates of activity impact on GHG;

● COMET-Farmer to build out a historical and plot-specific report;

● Soil carbon testing, (total soil organic carbon and labile soil carbon), through KSU which will allow producers to monitor increases in soil carbon sequestration over time in their climate-smart implementation plots. The peer-reviewed science behind the soil carbon-monitoring approach can be found in the articles cited in the Peer Reviewed Articles attachment;

● Working Trees, a venture out of Stanford University using smartphone cameras and LiDAR, satellite remote sensing, and machine learning to empower producers to monitor the carbon impact of agroforestry efforts with smartphones. The peer-reviewed science behind this approach can be found in the "Utilizing Biomass Estimators" section of the Peer Reviewed Articles attachment; and

● NCAT may provide technical assistance on other MMRV tools as requested. 31

Monitoring Practice Implementation

The project team will monitor climate-smart practice implementation by linking incentive payments and continued eligibility for additional incentive payments to acceptable report submissions from participants in the BSBE Incentive Program. Due to this remote strategy of this project, the team will rely on proven technology to verify implementation. In addition, dedicated NCAT staff can directly support soil sampling and monitoring during site visits to BSBE participating farms. Additionally, an annual mid-year convening of partners to reflect on KPIs and programmatic success indicators will be used to maximize and modify BSBE strategies aligned to programmatic outcomes.

The project team will define the specific parameters for what is deemed “acceptable” evidence of implementation at the start of the project, but envisions using a combination of before/after photographs, videos of practices being implemented, short written narratives, and BSBE-sponsored NCAT technical assistance specialist reports. For example, if a cattle farmer is implementing silvopasture on her farm, she would submit a before and after picture of the section undergoing implementation, a video of saplings being planted, and a short write-up of what trees she used, what considerations went into the selection, and how much time and what resources it required. Upon approval of her report, she receives her incentive direct deposit. BSBE staff will be available to assist with the creation of reports as needed.

ACAP’s Chief Data Officer and NCAT staff will be responsible for reviewing all reports submitted by producers and ACAP conducting due diligence to ensure producers are complying with implementation expectations. For example, staff will review the before and after pictures for common landmarks that indicate the two pictures are of the same location. If there are any questions, staff will contact the producer for clarification.

as. To align project team capacity with the scale of the project, participants will have assigned reporting months for all implementation and monitoring reports (approximately 120 producers per month, each reporting twice a year) to prevent bottlenecks in report reviewing and incentive disbursements. ACAP’s Chief Data Officer will maintain an accessible, easy-to-use report submission portal and provide timely, direct technical assistance to producers using the portal.

Approach to Reporting and Tracking GHG Benefits

Incentivized by a per-report payment, producers will submit their bi-annual reports of GHG benefits to the reporting portal described above. GHG benefit monitoring will continue through all 5 years of the grant in an attempt to capture as much of the GHG impact as possible of longer-term sequestration practices such as silvopasture. Producers will submit two to four reports per reporting period, as relevant, from the identified peer-reviewed monitoring and quantification methodologies:

1. A report downloaded from their updated COMET-Farm profile showing the calculated impact of implementing NCRS-identified climate smart practices on

specific plots. NCAT direct technical assistance will be provided to any participating producer needing support in using the COMET-Farm system.

2. A report from KSU's free soil carbon testing service showing total organic carbon content and labile soil carbon of soil collected from producers' implementation plots and mailed to the lab.

3. A report downloaded from Working Trees (if agroforestry impact is relevant to producer operation) showing the carbon sequestration impact of agroforestry efforts on the producers' implementation plots.

4. (Optional) Reports from any other climate/farm monitoring system.

ACAP's Chief Data Officer and LTA Staff will provide clear training materials on all monitoring and reporting systems through written documentation, training videos, live webinars, and direct technical assistance. Bi-annual submission of reports is a condition of continued eligibility for technical assistance access reimbursements and implementation grants. NCAT will continue their partnership with KSU and conduct on-site soil collection and monitoring support during their technical assistance visits.

Anticipated GHG Benefits

The BSBE team projects enabling the sequestration of 732,500 tons of carbon across 65,000 acres, or 22 tons per farm per year (using an average size of 100 acres), through the practices implemented through BSBE. This amount, calculated by the NCAT technical assistance team, is based on averages the carbon sequestration of a variety of practices (e.g. silvopasture sequesters 4.52 tons/acre/year and agroforestry is estimated to comprise 45% of practices, while cover cropping sequesters 1.72 tons/acre/year) being implemented across participating farms, with some allowance for co-implementation.

BSBE will directly incentivize 600 producers and 65,000 acres, for an average farm size of 100 acres. At an average of 11 tons per acre sequestered, the average estimated per-farm GHG benefit of the Incentive Program is 1,125 tons over 5 years. With a total project budget of approximately $22 million, for every $1 expended, 60lbs of carbon is sequestered on farms managed by producers in the BSBE Incentive Program, and an estimated full 1 ton is collectively sequestered on farms of producers who are impacted by the general, public availability of increased climate-smart technical assistance enabled by BSBE activities, such as the creation of new NCAT training materials.

Anticipated Longevity of GHG Benefits

BSBE is designed to remove barriers to implementing climate-smart practices on farms across Appalachia and the rural southeast while providing market-access support through ACAP's Business Accelerator networks. Producers will adopt climate-smart practices and will be incentivized to maintain those practices through

1. Receiving financial incentives to implement climate-smart practices;

2. Observing their decreased GHG impact;

3. Understanding and accessing markets that demand climate-smart commodities;

4. Engaging in regionalized peer-to-peer learning networks.

Through this combination of incentives and relationship building, producers will be able to maintain their practices through onboarding and implementation long enough to see the market return on their practices and decide to continue to maintain the practices implemented through the project and beyond the grant period. In this way, the GHG benefits achieved during the project will persist and expand as more producers implement more practices in response to growing market demand.

The list of climate-smart practices to be promoted and incentivized by this program offer a variety of GHG benefits and associated longevity. For example, silvopasture offers long-term carbon sequestration in trees while cover cropping's GHG benefits may be more related to building soil carbon sequestration capacity and whose benefits may last as long as the cover crop is utilized.

Non-GHG Environmental Co-Benefits

Due to the range of climate-smart practices in this project, there are numerous non-GHG environmental co-benefits that will be observed as a result of the practices implemented through this project. Information on climate-smart practices that is provided to participants will include information concerning the range of co-benefits each practice can offer. For example, riparian buffers using trees have the multi-pronged benefit of sequestering carbon in the tree, reducing run-off into bodies of water, and stabilizing banks against erosion. More information about the non-GHG environmental co-benefits can be found in the Glossary of Practices attachment.

Participants will have the opportunity in their reporting to document additional environmental benefits they have observed as a result of implementing climate-smart practices. These benefits will be inventoried and used for communication and marketing purposes, as well as, shared directly with USDA staff to inform future actions that encourage climate-smart commodities.

Climate Adaptation Benefits

Many climate-smart practices are also resilient practices that enable farms to survive increasingly intense climate patterns. For example, cover cropping and no/low-till practices protect soil from exposure, reducing water evaporation and the need for irrigation, which can be critical during droughts. Contour buffer strips can slow the movement of water downhill and allow soil to absorb the water, reducing soil erosion, nutrient leaching, and flooding, as well as retaining water. These benefits allow producers to weather heavy rains, floods, and droughts. By implementing climate-smart practices, participating producers will be suited to adapt to changing weather patterns.

Verification of GHG Benefits

GHG benefits will be verified by the producer through the measuring and monitoring methodologies described earlier. The project team will verify producer claims of GHG

benefits by reviewing data and reports submitted by the producer to confirm alignment with the scale and scope of their identified implementation projects. BSBE-sponsored NCAT technical assistance specialists in each region will provide on-farm technical assistance to participant producers to ensure proper verification methods as referenced above. The BSBE Chief Data Officer will also conduct data reviews to identify outliers and flag any incongruous GHG benefit data to be further examined by the BSBE partners.

Agreement to Participate in Partnerships Network

ACAP's Executive Director, SaraDay Evans, will be designated as a member of the USDA Partnerships for Climate-Smart Commodities Learning Network, as she will serve as the project lead and will maintain or cause to be maintained all project records that will inform the USDA's synthesis reports.

Development and Expansion of Climate-Smart Commodity Markets ACAP will leverage more than 10 years of experience supporting businesses committed to reducing their climate impact to provide business and market development support to BSBE participants. Utilizing their proven Business Accelerator model and network, ACAP will provide $1 million in in-kind services, connecting producers directly to markets and consumers who seek climate-smart commodities through their business incubation network. This Accelerator already works with markets across multiple states and has supported producers to adopt CSAF practices and leverage $20 million of additional capital as a result of expanded market participation.

Recruiting strategies in markets with existing producer relationships will equip producers to implement climate-smart practices - increasing markets' ability to comply with their environmental strategic goals and use climate change mitigation in their marketing. For example, the project team sends a large distillery information about BSBE to pass along to the producers they buy grain from. Five producers enroll and implement climate-smart practices, enabled by the incentives and access to technical assistance. The distillery isolates grains from those five producers to create a "climate smart" product which sells at a premium and meets the Environmental, Social, and Governance (ESG) goals of the distiller.

Partnerships Designed to Market Resulting Climate-Smart Commodities

CSAF commodities enabled through the BSBE program (and the BSBE program itself) will be marketed through multiple avenues:

1. BSBE-collected case studies: BSBE staff and partners will collect case studies from BSBE participants that will be used to

a. Demonstrate CSAF practice implementation;

b. Market BSBE participant commodities to local markets; and

c.Build awareness of CSAF practices and market opportunities. Case studies will be collected and distributed in the form of videos, written reports, social media spotlights, speaker highlights at convenings, and more through BSBE partners and their respective networks (e.g. NCAT will share a BSBE producer spotlight in their

podcast);

2. ACAP will foster market connections between BSBE producers and ACAP's climate-minded business network through the above marketing means as well as in-person networking convenings and meet-ups; and

3. NCAT will create multimedia content through multiple on-farm engagements that will be used by GRC Advising to engage a regional and national audience in BSBE storytelling and thought leadership in the power of the climate smart products and commodities supply chain.

BSBE partners will develop an agreed upon system for inventorying the climate smart products and commodities as they go to market and, where able, capture the market-facing relationships that farmers have and/or develop throughout the duration of the BSBE award. This information will live in the BSBE database and will be fully aligned to COMET standards. A landscape analysis of tracking methods will be conducted and, as a result of that analysis, ACAP and NCAT will collaborate to inventory the established supply chain trackers within their networks. Additionally, other, more qualitative, data points will be captured through ACAP's wholesale business relationships and stories that feature the farmers, wholesalers, and their customers.

Additionally, Carbon Harvest will use data from BSBE to build a regional climate smart investment platform that links regional industry to climate-smart farmers to drive long term investment in agriculture.

Throughout this mixed method for tracking climate smart commodities throughout the supply chain, BSBE partners will develop emergent and promising innovative practices for measuring, tracking, and communicating the outcomes of the BSBE initiative.

Tracking Commodities Through Supply Chain

Commodity tracking through the supply chain will be conducted through self-reporting by BSBE commodity producers during annual reporting alongside their climate-impact data. Producers will report up to the top five markets they distributed their climate-smart commodities to in the past year, the total value of those commodities, and the projected demand for those commodities. Doing so supports producers (and the BSBE partners) to better understand the market returns of adopting CSAF practices.

Estimated Economic Benefits for Participating Producers

GRC Advising will perform comprehensive research to create, baseline, and benchmark Key Performance Indicators (KPIs) to better analyze the full economic benefits and lasting impact of the BSBE initiative. These KPIs will form the basis of an economic, social, and environmental benefit framework that incorporates traditional measures (i.e. revenue generated from climate smart commodities) as well as broader resilience indicators grounded in the communities in which producers operate. GRC Advising will generate regional case studies, conduct further research to better understand the messaging and marketing implications of the climate smart commodities on customer purchasing behaviors, and create infographics to express these findings.

The demonstrated success of the ACAP Business Accelerator indicates that the typical producer is able to generate an average of $55,000 of new revenue through ACAP support. This proven model, when coupled with intensive marketing support, the cost of the training, incentives for adopting regenerative practices, any equipment secured, travel reimbursements and relationships formed with markets is projected to enable producers to earn triple the amount of traditional Business Accelerator participants, for an estimated amount of $165,000 over the lifetime of the grant. Participating producers will also be able to leverage this revenue beyond the scope of the grant.

Post-Project Potential

The design of BSBE - using financial incentives, remote strategies, and modern technology to remove costs and burden associated with learning about, implementing, and monitoring climate-smart practices - makes the project both easily scalable, particularly wherever existing strong technical assistance programs exist, and particularly enduring, through the creation of regionalized peer learning networks. In their role as lead strategic planner and implementation specialists, Latent Talent Accelerator will leverage their deep knowledge of Central Appalachian partnerships, potential funding levers, and the science of scaling to build every project element with sustainable growth top of mind.

While the scope of this project is 600 producers, Latent Talent Accelerator and ACAP have dedicated capacity to pursue additional funding to be able to continue to support the original 750 producers while expanding to reach more producers as interest and market demand grows. As such, the project is projected to persist past the term of the grant to impact more than 20,000 producers over the next 10 years.

Informing Future USDA Activities to Encourage Climate-Smart Commodities
BSBE intentionally uses producer surveys as part of the enrollment process to ensure technical assistance provided through the project is relevant and accessible to participating producers. Survey findings and key learning that emerges from the regionalized peer learning networks can also be used to inform USDA priorities around particular practices across the geographic focal areas of the project.

Additionally, BSBE emphasizes the public communication of the success and impact of climate-smart practices for producers, markets, consumers, and the climate in the form of tip sheets, multimedia case studies, farmer field days, conference presentations, and

features in USDA materials. These artifacts will contribute to a body of emergent practices that will directly inform new areas of research and scholarship, shared learning among USDA awardees, and, perhaps more importantly, a growing culture of acceptance for climate-smart practices in agriculture among producers, markets, and consumers.

Quarterly Milestones and Projected Expenses are below, as well as captured in a separate attachment named “USDA BSBE Milestones and Benchmark Document”.

Estimated indirect costs for year one: $67,929

Q1 2023 Milestones and Projected Direct Expenses

- Develop and release job descriptions for ACAP Open Roles
- Release any RFPs
- Onboard fellow sub-awardees
- Develop strategic plan
- Build and begin distributing farmer survey
- Build database to be ready for farmer registration in Q2
- Operationalize KSU's soil testing lab
- Create marketing plan
- **Quarterly estimated direct costs: $775,359**

Q2 2023 Milestones and Projected Direct Expenses

- Hire for essential ACAP open roles
- Close RFP process
- Finalize strategic plan
- Close and analyze farmer survey
- Develop and launch NCAT TA priorities
- Register BSBE farmers
- Begin gathering baseline soil and woody biomass samples
- Create systems and structures to document impact and convene partners to ensure alignment on outcomes
- Launch marketing plan
- Build a BSBE Network
- Create, baseline, and benchmark Key Performance Indicators (KPIs) to better analyze the full economic benefits and lasting impact of the BSBE initiative
- **Quarterly estimated direct costs: $775,359**

Q3 2023 Milestones and Projected Direct Expenses

- Hire for additional ACAP open roles

- Register BSBE farmers
- Build out scope and sequence of programming given farmer survey responses
- Provide on-going NCAT technical assistance to BSBE farmers
- Conduct first farmer field day
- Assist farmers in marketing climate-smart commodities
- Create systems and structures to document impact and convene partners to ensure alignment on outcomes
- Initiate cycles of continuous improvement
- Collect soil and woody biomass samples
- Build a BSBE Network
- Engage investors and funders along the CSAF supply chain
- Test Key Performance Indicators (KPIs) to better analyze the full economic benefits and lasting impact of the BSBE initiative
- **Quarterly estimated direct costs: $775,359**

Q4 2023 Milestones and Projected Direct Expenses

- Register 200 BSBE farmers at the close of year one
- Provide on-going NCAT technical assistance to BSBE farmers
- Assist farmers in marketing climate-smart commodities
- Collect soil and woody biomass samples
- Build a BSBE Network
- Track CSAF Commodity Economic Impact
- Engage investors and funders along the CSAF supply chain
- Refine Key Performance Indicators (KPIs) to better analyze the full economic benefits and lasting impact of the BSBE initiative
- Convene partners to evaluate the effectiveness of the BSBE initiatives and modify strategies for the subsequent calendar year
- **Quarterly estimated direct costs: $775,359**

Estimated indirect costs for year two: $67,929

Q1 2024 Milestones and Projected Direct Expenses

- Register BSBE farmers
- Provide on-going NCAT technical assistance to BSBE farmers
- Assist farmers in marketing climate-smart commodities
- Collect soil and woody biomass samples
- Build a BSBE Network
- Track CSAF Commodity Economic Impact
- Engage investors and funders along the CSAF supply chain
- Conduct farmer field days
- Monitor Key Performance Indicators (KPIs) to better analyze the full economic benefits and lasting impact of the BSBE initiative
- **Quarterly estimated direct costs: $1,269,736**

Q2 2024 Milestones and Projected Direct Expenses

- Register BSBE farmers
- Provide on-going NCAT technical assistance to BSBE farmers
- Assist farmers in marketing climate-smart commodities
- Collect soil and woody biomass samples
- Build a BSBE Network
- Track CSAF Commodity Economic Impact
- Engage investors and funders along the CSAF supply chain
- Conduct farmer field days
- Monitor Key Performance Indicators (KPIs) to better analyze the full economic benefits and lasting impact of the BSBE initiative
- **Quarterly estimated direct costs: $1,269,736**

Q3 2024 Milestones and Projected Direct Expenses

- Register BSBE farmers
- Provide on-going NCAT technical assistance to BSBE farmers

- Assist farmers in marketing climate-smart commodities
- Collect soil and woody biomass samples
- Build a BSBE Network
- Track CSAF Commodity Economic Impact
- Engage investors and funders along the CSAF supply chain
- Monitor Key Performance Indicators (KPIs) to better analyze the full economic benefits and lasting impact of the BSBE initiative
- **Quarterly estimated direct costs: $1,269,736**

Q4 2024 Milestones and Projected Direct Expenses

- Register 400 BSBE farmers at the close of year two
- Provide on-going NCAT technical assistance to BSBE farmers
- Assist farmers in marketing climate-smart commodities
- Launch BSBE Convening One
- Collect soil and woody biomass samples
- Build a BSBE Network
- Track CSAF Commodity Economic Impact
- Engage investors and funders along the CSAF supply chain
- Monitor Key Performance Indicators (KPIs) to better analyze the full economic benefits and lasting impact of the BSBE initiative
- Convene partners to evaluate the effectiveness of the BSBE initiatives and modify strategies for the subsequent calendar year
- **Quarterly estimated direct costs: $1,269,736**

Estimated indirect costs for year three: $67,929

Q1 2025 Milestones and Projected Direct Expenses

- Register BSBE farmers
- Provide on-going NCAT technical assistance to BSBE farmers

- Assist farmers in marketing climate-smart commodities
- Collect soil and woody biomass samples
- Build a BSBE Network
- Track CSAF Commodity Economic Impact
- Engage investors and funders along the CSAF supply chain
- Conduct farmer field days
- Monitor Key Performance Indicators (KPIs) to better analyze the full economic benefits and lasting impact of the BSBE initiative
- **Quarterly estimated direct costs: $1,470,010**

Q2 2025 Milestones and Projected Direct Expenses

- Register BSBE farmers
- Provide on-going NCAT technical assistance to BSBE farmers
- Assist farmers in marketing climate-smart commodities
- Collect soil and woody biomass samples
- Build a BSBE Network
- Track CSAF Commodity Economic Impact
- Engage investors and funders along the CSAF supply chain
- Conduct farmer field days
- Monitor Key Performance Indicators (KPIs) to better analyze the full economic benefits and lasting impact of the BSBE initiative
- **Quarterly estimated direct costs: $1,470,010**

Q3 2025 Milestones and Projected Direct Expenses

- Register BSBE farmers
- Provide on-going NCAT technical assistance to BSBE farmers
- Assist farmers in marketing climate-smart commodities
- Collect soil and woody biomass samples

- Build a BSBE Network
- Track CSAF Commodity Economic Impact
- Engage investors and funders along the CSAF supply chain
- Monitor Key Performance Indicators (KPIs) to better analyze the full economic benefits and lasting impact of the BSBE initiative
- **Quarterly estimated direct costs: $1,470,010**

Q4 2025 Milestones and Projected Direct Expenses

- Register 500 BSBE farmers at the close of year three
- Provide on-going NCAT technical assistance to BSBE farmers
- Assist farmers in marketing climate-smart commodities
- Collect soil and woody biomass samples
- Build a BSBE Network
- Track CSAF Commodity Economic Impact
- Engage investors and funders along the CSAF supply chain
- Monitor Key Performance Indicators (KPIs) to better analyze the full economic benefits and lasting impact of the BSBE initiative
- Convene partners to evaluate the effectiveness of the BSBE initiatives and modify strategies for the subsequent calendar year
- **Quarterly estimated direct costs: $1,470,010**

Estimated indirect costs for year four: $67,929

Q1 2026 Milestones and Projected Direct Expenses

- Register BSBE farmers
- Provide on-going NCAT technical assistance to BSBE farmers
- Assist farmers in marketing climate-smart commodities
- Collect soil and woody biomass samples
- Build a BSBE Network

- Track CSAF Commodity Economic Impact
- Engage investors and funders along the CSAF supply chain
- Conduct farmer field days
- Monitor Key Performance Indicators (KPIs) to better analyze the full economic benefits and lasting impact of the BSBE initiative
- **Quarterly estimated direct costs: $929,612**

Q2 2026 Milestones and Projected Direct Expenses

- Register BSBE farmers
- Provide on-going NCAT technical assistance to BSBE farmers
- Assist farmers in marketing climate-smart commodities
- Collect soil and woody biomass samples
- Build a BSBE Network
- Track CSAF Commodity Economic Impact
- Engage investors and funders along the CSAF supply chain
- Conduct farmer field days
- Monitor Key Performance Indicators (KPIs) to better analyze the full economic benefits and lasting impact of the BSBE initiative
- **Quarterly estimated direct costs: $929,612**

Q3 2026 Milestones and Projected Direct Expenses

- Register BSBE farmers
- Provide on-going NCAT technical assistance to BSBE farmers
- Assist farmers in marketing climate-smart commodities
- Collect soil and woody biomass samples
- Build a BSBE Network
- Track CSAF Commodity Economic Impact
- Engage investors and funders along the CSAF supply chain

- Monitor Key Performance Indicators (KPIs) to better analyze the full economic benefits and lasting impact of the BSBE initiative
- **Quarterly estimated direct costs: $929,612**

Q4 2026 Milestones and Projected Direct Expenses

- Register 600 BSBE farmers at the close of year four
- Provide on-going NCAT technical assistance to BSBE farmers
- Assist farmers in marketing climate-smart commodities
- Launch BSBE Convening Two
- Collect soil and woody biomass samples
- Build a BSBE Network
- Track CSAF Commodity Economic Impact
- Engage investors and funders along the CSAF supply chain
- Monitor Key Performance Indicators (KPIs) to better analyze the full economic benefits and lasting impact of the BSBE initiative
- Convene partners to evaluate the effectiveness of the BSBE initiatives and modify strategies for the subsequent calendar year
- **Quarterly estimated direct costs: $929,612**

Estimated indirect costs for year five: $67,929

Q1 2027 Milestones and Projected Direct Expenses

- Provide on-going NCAT technical assistance to BSBE farmers
- Assist farmers in marketing climate-smart commodities
- Collect soil and woody biomass samples
- Build a BSBE Network
- Track CSAF Commodity Economic Impact
- Engage investors and funders along the CSAF supply chain
- Conduct farmer field days

- Monitor Key Performance Indicators (KPIs) to better analyze the full economic benefits and lasting impact of the BSBE initiative
- **Quarterly estimated direct costs: $468,800.42**

Q2 2027 Milestones and Projected Direct Expenses

- Provide on-going NCAT technical assistance to BSBE farmers
- Assist farmers in marketing climate-smart commodities
- Collect soil and woody biomass samples
- Build a BSBE Network
- Track CSAF Commodity Economic Impact
- Engage investors and funders along the CSAF supply chain
- Conduct farmer field days
- Monitor Key Performance Indicators (KPIs) to better analyze the full economic benefits and lasting impact of the BSBE initiative
- **Quarterly estimated direct costs: $468,800.42**

Q3 2027 Milestones and Projected Direct Expenses

- Provide on-going NCAT technical assistance to BSBE farmers
- Assist farmers in marketing climate-smart commodities
- Collect soil and woody biomass samples
- Build a BSBE Network
- Track CSAF Commodity Economic Impact
- Engage investors and funders along the CSAF supply chain
- Monitor Key Performance Indicators (KPIs) to better analyze the full economic benefits and lasting impact of the BSBE initiative
- **Quarterly estimated direct costs: $468,800.42**

Q4 2027 Milestones and Projected Direct Expenses

- Provide on-going NCAT technical assistance to BSBE farmers
- Assist farmers in marketing climate-smart commodities
- Collect soil and woody biomass samples
- Build a BSBE Network
- Track CSAF Commodity Economic Impact
- Engage investors and funders along the CSAF supply chain
- Monitor Key Performance Indicators (KPIs) to better analyze the full economic benefits and lasting impact of the BSBE initiative
- Convene partners to evaluate the effectiveness of the BSBE initiatives and modify strategies for the subsequent calendar year
- **Quarterly estimated direct costs: $468,800.42**

The following USDA provided metrics will be used to measure and report quarterly progress:

Required Quantitative Targets by Quarter (Cumulative)

Number of producers involved

1. Year 1 (2023)
    a. Q1 - 0 (grant start-up)
    b. Q2 - 0 (grant start-up)
    c. Q3 - 75 producers supported
    d. Q4 - 150 producers supported
2. Year 2 (2024)
    a. Q1 - 150
    b. Q2 - 250
    c. Q3 - 250
    d. Q4 - 300 producers supported
3. Year 3 (2025)
    a. Q1 - 300
    b. Q2 - 350
    c. Q3 - 350
    d. Q4 - 500 producers supported
4. Year 4 (2026)
    a. Q1 - 500
    b. Q2 - 550
    c. Q3 - 550
    d. Q4 - 600 producers supported
5. Year 5 (2027)
    a. Q1 - 600 maintained with no new farmers/acreage
    b. Q2 - 600
    c. Q3 - 600

d. Q4 - 600 producers supported

Number of underserved producers involved

1. Year 1 (2023)
    a. Q1 - 0 (grant start-up)
    b. Q2 - 0 (grant start-up)
    c. Q3 - 50
    d. Q4 - 75 underserved producers supported
2. Year 2 (2024)
    a. Q1 - 100
    b. Q2 - 125
    c. Q3 - 125
    d. Q4 - 150 underserved producers supported
3. Year 3 (2025)
    a. Q1 - 175
    b. Q2 - 200
    c. Q3 - 200
    d. Q4 - 250 underserved producers supported
4. Year 4 (2026)
    a. Q1 - 275
    b. Q2 - 300
    c. Q3 - 300
    d. Q4 - 325 underserved producers supported
5. Year 5 (2027)
    a. Q1 - 325 maintained with no new farmers/acreage
    b. Q2 - 325
    c. Q3 - 325
    d. Q4 - 325 underserved producers supported

Number of acres involved

1. Year 1 (2023)
    a. Q1 - 0 (grant start-up)

b. Q2 - 0 (grant start-up)

c. Q3 - 3250

d. Q4 - 6500 acres involved

2. Year 2 (2024)

a. Q1 - 12000

b. Q2 - 16000

c. Q3 - 20000

d. Q4 - 26000 acres involved

3. Year 3 (2025)

a. Q1 - 35000

b. Q2 - 40000

c. Q3 - 45000

d. Q4 - 52000 acres involved

4. Year 4 (2026)

a. Q1 - 56000

b. Q2 - 60000

c. Q3 - 62000

d. Q4 - 65000 acres involved

5. Year 5 (2027)

a. Q1 - 65000 maintained with no new farmers/acreage

b. Q2 - 65000

c. Q3 - 65000

d. Q4 - 65,000 acres involved

Dollars provided to producers

1. Year 1 (2023)

a. Q1 - $0 (grant start-up)

b. Q2 - $0 (grant start-up)

c. Q3 - $505,275

d. Q4 - $1,040,550 distributed over the course of year one

2. Year 2 (2024)

a. Q1 - $1,694,775
b. Q2 - $2,339,700
c. Q3 - $2,834,625
d. Q4 - $3,817,950 distributed over the course of years one and two

3. Year 3 (2025)
    a. Q1 - $4,704,625
    b. Q2 - $5,462,500
    c. Q3 - $6,110,375 distributed over the course of the first three years
4. Year 4 (2026)
    a. Q1 - $7,765,700
    b. Q2 - $8,450,750
    c. Q3 - $8,803,400
    d. Q4 - $9,707,750 distributed over the course of the first four years
5. Year 5 (2027)
    a. Q1 - $9,382,250
    b. Q2 - $9,442,250
    c. Q3 - $9,442,250
    d. Q4 - $9,502,250 distributed over the course of the BSBE

GHG Benefits (Metric Tons of CO2e Reduced or Sequestered)

1. Year 1 (2023)
    a. Q1 - 0
    b. Q2 - 0
    c. Q3 - 50,000
    d. Q4 - 146,510 tons of carbon
2. Year 2 (2024)
    a. Q1 - 183,000
    b. Q2 - 220,000
    c. Q3 - 256,000
    d. Q4 - 293,020 tons of carbon
3. Year 3 (2025)

a. Q1 - 345,000
b. Q2 - 397,000
c. Q3 - 449,000
d. Q4 - 501,481 tons of carbon

4. Year 4 (2026)
   a. Q1 - 539,000
   b. Q2 - 575,000
   c. Q3 - 611,000
   d. Q4 - 647, 981 tons of carbon
5. Year 5 (2027)
   a. Q1 - 669,000
   b. Q2 - 690,000
   c. Q3 - 711,000
   d. Q4 - 732,500 tons of carbon

Number of new marketing channels established*

1. Year 1: Two new, digital channels per year/for the first two years of the program
2. Year 2: Two new, digital channels, for a total of at least four new marketing channels
3. Year 3: In year three, these new marketing channels will be expanded
4. Year 4: In year four, these marketing channels will be expanded
5. Year 5: In year five, these marketing channels will be expanded

Number of marketing channels expanded. *Note: Marketing channels can be a wide range e.g. selling to food processors, distributers, direct to consumer.*

1. Year 1: At least two pre-existing marketing channels will be expanded
2. Year 2: At least six pre-existing marketing channels will be expanded
3. Year 3: At least eight pre-existing marketing channels will be expanded
4. Year 4: At least ten pre-existing marketing channels will be expanded
5. Year 5: At least ten pre-existing marketing channels will be expanded

Number of measurement tools utilized

1. Year 1: Soil testing calculating carbon sequestration in soil (Kentucky State University), Smartphone and satellite imagery calculating

carbon sequestration in trees (Working Trees), and COMET-Farm

2. Year 2: Soil testing calculating carbon sequestration in soil (Kentucky State University), Smartphone and satellite imagery calculating carbon sequestration in trees (Working Trees), and COMET-Farm
3. Year 3: Soil testing calculating carbon sequestration in soil (Kentucky State University), Smartphone and satellite imagery calculating carbon sequestration in trees (Working Trees), and COMET-Farm
4. Year 4: Soil testing calculating carbon sequestration in soil (Kentucky State University), Smartphone and satellite imagery calculating carbon sequestration in trees (Working Trees), and COMET-Farm
5. Year 5: Soil testing calculating carbon sequestration in soil (Kentucky State University), Smartphone and satellite imagery calculating carbon sequestration in trees (Working Trees), and COMET-Farm

Other Required Benchmarks that may be quantitative or qualitative: *Outreach, training and other technical assistance*

1. Year 1: Four to eight field days, centering specific Climate Smart Farming Practices, per year to be hosted regionally to serve multiple states, 12 online offerings, 12 peer-to-peer learning events
2. Year 2: Four to eight field days, centering specific Climate Smart Farming Practices, per year to be hosted regionally to serve multiple states, 12 online offerings, 12 peer-to-peer learning events, one national convening
3. Year 3: Four to eight field days, centering specific Climate Smart Farming Practices, per year to be hosted regionally to serve multiple states, 12 online offerings, 12 peer-to-peer learning events
4. Year 4: Four to eight field days, centering specific Climate Smart Farming Practices, per year to be hosted regionally to serve multiple states, 12 online offerings, 12 peer-to-peer learning events, one national convening
5. Year 5: Four to eight field days, centering specific Climate Smart Farming Practices, per year to be hosted regionally to serve multiple states, 12 online offerings, 12 peer-to-peer learning events

Other MMRV and supply chain traceability attributes

1. Year 1: Establish a data system and workflow to accomplish the following:
    a. Creation of forms, interfaces, and/or workbooks for the reporting of all MMRV criteria that will be stored within the BSBE database for quantification, analysis, and reporting
    b. Creation of forms, interfaces, and/or workbooks for the reporting or sales of commodities, and all requisite marketing data
    c. Training of partners and producers in the use of said forms, interfaces, and workbooks, resulting in 250 completed forms in year one
    d. Generation of quarterly reports on metrics outlined in this document and an annual report that includes summative analysis of short-term and long-term program impact on producers, agriculture and carbon markets, and GHG reductions

e. Integration of advanced analytical tools and reporting dashboards into the BSBE database to allow for improved impact analysis and strategic decision making

f. Production of data submission help/training guides to assist producers and partners with data submissions on a larger scale and as producer enrollment increases

g. Creation of criteria for improving BSBE data systems as needed

2. Year 2: Management of the BSBE data system and workflow to accomplish the following:

a. Management of forms, interfaces, and/or workbooks for the reporting of all MMRV criteria stored within the BSBE database for quantification, analysis, and reporting

b. Management of forms, interfaces, and/or workbooks for the reporting or sales of commodities, and all requisite marketing data

c. Training new partners and producers in the use of said forms, interfaces, and workbooks, resulting in 400 completed forms in year two

d. Generation of quarterly reports on metrics outlined in this document and an annual report that includes summative analysis of short-term and long-term program impact on producers, agriculture and carbon markets, and GHG reductions

e. Integration of advanced analytical tools and reporting dashboards into the BSBE database to allow for improved impact analysis and strategic decision making

f. Production of data submission help/training guides to assist producers and partners with data submissions on a larger scale and as producer enrollment increases

g. Deploying improvement cycles of BSBE data systems as needed

3. Year 3: Management of the BSBE data system and workflow to accomplish the following:

a. Management of forms, interfaces, and/or workbooks for the reporting of all MMRV criteria stored within the BSBE database for quantification, analysis, and reporting

b. Management of forms, interfaces, and/or workbooks for the reporting or sales of commodities, and all requisite marketing data

c. Training new partners and producers in the use of said forms, interfaces, and workbooks, resulting in 500 completed forms in year two

d. Generation of quarterly reports on metrics outlined in this document and an annual report that includes summative analysis of short-term and long-term program impact on producers, agriculture and carbon markets, and GHG reductions

e. Integration of advanced analytical tools and reporting dashboards into the BSBE database to allow for improved impact analysis and strategic decision making

f. Production of data submission help/training guides to assist producers and partners with data submissions on a larger scale and as

producer enrollment increases

g. Deploying improvement cycles of BSBE data systems as needed

4. Year 4: Management of the BSBE data system and workflow to accomplish the following:

   a. Management of forms, interfaces, and/or workbooks for the reporting of all MMRV criteria stored within the BSBE database for quantification, analysis, and reporting

   b. Management of forms, interfaces, and/or workbooks for the reporting or sales of commodities, and all requisite marketing data

   c. Training new partners and producers in the use of said forms, interfaces, and workbooks, resulting in 600 completed forms in year two

   d. Generation of quarterly reports on metrics outlined in this document and an annual report that includes summative analysis of short-term and long-term program impact on producers, agriculture and carbon markets, and GHG reductions

   e. Integration of advanced analytical tools and reporting dashboards into the BSBE database to allow for improved impact analysis and strategic decision making

   f. Production of data submission help/training guides to assist producers and partners with data submissions on a larger scale and as producer enrollment increases

   g. Deploying improvement cycles of BSBE data systems as needed

5. Year 5: Management of the BSBE data system and workflow to accomplish the following:

   a. Management of forms, interfaces, and/or workbooks for the reporting of all MMRV criteria stored within the BSBE database for quantification, analysis, and reporting

   b. Management of forms, interfaces, and/or workbooks for the reporting or sales of commodities, and all requisite marketing data

   c. Generation of quarterly reports on metrics outlined in this document and an annual report that includes summative analysis of short-term and long-term program impact on producers, agriculture and carbon markets, and GHG reductions

Other measurements of work related to marketing of commodities

1. Year 1: Two new wholesaler, buyer relationships per year for duration of grant
2. Year 2: Two new wholesaler, buyer relationships, for a total of at least four market-bound relationships
3. Year 3: Two new wholesaler, buyer relationships, for a total of at least six market-bound relationships
4. Year 4: Two new wholesaler, buyer relationships, for a total of at least eight market-bound relationships
5. Year 5: Two new wholesaler, buyer relationships, for a total of at least ten market-bound relationships

Demonstrated engagement of major partners

1. Year 1: 12 virtual meetings, two face-to-face meetings, up to four attended partner events, at least six cross-promoted marketing engagements, and at least two new strategic partnerships facilitated per year
2. Year 2: 12 virtual meetings, two face-to-face meetings, up to four attended partner events, at least six cross-promoted marketing engagements, and at least two new strategic partnerships facilitated per year
3. Year 3: 12 virtual meetings, two face-to-face meetings, up to four attended partner events, at least six cross-promoted marketing engagements, and at least two new strategic partnerships facilitated per year
4. Year 4: 12 virtual meetings, two face-to-face meetings, up to four attended partner events, at least six cross-promoted marketing engagements, and at least two new strategic partnerships facilitated per year
5. Year 5: Six virtual meetings, two face-to-face meetings, and at least six cross-promoted marketing engagements

Climate smart technologies employed (if applicable)

1. Not applicable to the current BSBE strategic plan. If applicable at a later date, additional indicators will be created.

Quarterly Milestones and Projected Expenses

Estimated indirect costs for year one: $67,929

Q1 2023 Milestones and Projected Direct Expenses

- Develop and release job descriptions for ACAP Open Roles
- Release any RFPs
- Onboard fellow sub-awardees
- Develop strategic plan
- Build and begin distributing farmer survey
- Build database to be ready for farmer registration in Q2
- Operationalize KSU's soil testing lab
- Create marketing plan
- **Quarterly estimated direct costs: $775,359**

Q2 2023 Milestones and Projected Direct Expenses

- Hire for essential ACAP open roles
- Close RFP process
- Finalize strategic plan
- Close and analyze farmer survey
- Develop and launch NCAT TA priorities
- Register BSBE farmers
- Begin gathering baseline soil and woody biomass samples
- Create systems and structures to document impact and convene partners to ensure alignment on outcomes
- Launch marketing plan
- Build a BSBE Network
- Create, baseline, and benchmark Key Performance Indicators (KPIs) to better analyze the full economic benefits and lasting impact of the BSBE initiative
- **Quarterly estimated direct costs: $775,359**

Q3 2023 Milestones and Projected Direct Expenses

- Hire for additional ACAP open roles
- Register BSBE farmers
- Build out scope and sequence of programming given farmer survey responses
- Provide on-going NCAT technical assistance to BSBE farmers
- Conduct first farmer field day
- Assist farmers in marketing climate-smart commodities
- Create systems and structures to document impact and convene partners to ensure alignment on outcomes

- Initiate cycles of continuous improvement
- Collect soil and woody biomass samples
- Build a BSBE Network
- Engage investors and funders along the CSAF supply chain
- Test Key Performance Indicators (KPIs) to better analyze the full economic benefits and lasting impact of the BSBE initiative
- **Quarterly estimated direct costs: $775,359**

Q4 2023 Milestones and Projected Direct Expenses

- Register 200 BSBE farmers at the close of year one
- Provide on-going NCAT technical assistance to BSBE farmers
- Assist farmers in marketing climate-smart commodities
- Collect soil and woody biomass samples
- Build a BSBE Network
- Track CSAF Commodity Economic Impact
- Engage investors and funders along the CSAF supply chain
- Refine Key Performance Indicators (KPIs) to better analyze the full economic benefits and lasting impact of the BSBE initiative
- Convene partners to evaluate the effectiveness of the BSBE initiatives and modify strategies for the subsequent calendar year
- **Quarterly estimated direct costs: $775,359**

Estimated indirect costs for year two: $67,929

Q1 2024 Milestones and Projected Direct Expenses

- Register BSBE farmers
- Provide on-going NCAT technical assistance to BSBE farmers

- Assist farmers in marketing climate-smart commodities
- Collect soil and woody biomass samples
- Build a BSBE Network
- Track CSAF Commodity Economic Impact
- Engage investors and funders along the CSAF supply chain
- Conduct farmer field days
- Monitor Key Performance Indicators (KPIs) to better analyze the full economic benefits and lasting impact of the BSBE initiative
- **Quarterly estimated direct costs: $1,269,736**

Q2 2024 Milestones and Projected Direct Expenses

- Register BSBE farmers
- Provide on-going NCAT technical assistance to BSBE farmers
- Assist farmers in marketing climate-smart commodities
- Collect soil and woody biomass samples
- Build a BSBE Network
- Track CSAF Commodity Economic Impact
- Engage investors and funders along the CSAF supply chain
- Conduct farmer field days
- Monitor Key Performance Indicators (KPIs) to better analyze the full economic benefits and lasting impact of the BSBE initiative
- **Quarterly estimated direct costs: $1,269,736**

Q3 2024 Milestones and Projected Direct Expenses

- Register BSBE farmers
- Provide on-going NCAT technical assistance to BSBE farmers

- Assist farmers in marketing climate-smart commodities
- Collect soil and woody biomass samples
- Build a BSBE Network
- Track CSAF Commodity Economic Impact
- Engage investors and funders along the CSAF supply chain
- Monitor Key Performance Indicators (KPIs) to better analyze the full economic benefits and lasting impact of the BSBE initiative
- **Quarterly estimated direct costs: $1,269,736**

Q4 2024 Milestones and Projected Direct Expenses

- Register 400 BSBE farmers at the close of year two
- Provide on-going NCAT technical assistance to BSBE farmers
- Assist farmers in marketing climate-smart commodities
- Launch BSBE Convening One
- Collect soil and woody biomass samples
- Build a BSBE Network
- Track CSAF Commodity Economic Impact
- Engage investors and funders along the CSAF supply chain
- Monitor Key Performance Indicators (KPIs) to better analyze the full economic benefits and lasting impact of the BSBE initiative
- Convene partners to evaluate the effectiveness of the BSBE initiatives and modify strategies for the subsequent calendar year
- **Quarterly estimated direct costs: $1,269,736**

Estimated indirect costs for year three: $67,929

Q1 2025 Milestones and Projected Direct Expenses

- Register BSBE farmers
- Provide on-going NCAT technical assistance to BSBE farmers
- Assist farmers in marketing climate-smart commodities
- Collect soil and woody biomass samples
- Build a BSBE Network
- Track CSAF Commodity Economic Impact
- Engage investors and funders along the CSAF supply chain
- Conduct farmer field days
- Monitor Key Performance Indicators (KPIs) to better analyze the full economic benefits and lasting impact of the BSBE initiative
- **Quarterly estimated direct costs: $1,470,010**

Q2 2025 Milestones and Projected Direct Expenses

- Register BSBE farmers
- Provide on-going NCAT technical assistance to BSBE farmers
- Assist farmers in marketing climate-smart commodities
- Collect soil and woody biomass samples
- Build a BSBE Network
- Track CSAF Commodity Economic Impact
- Engage investors and funders along the CSAF supply chain
- Conduct farmer field days

- Monitor Key Performance Indicators (KPIs) to better analyze the full economic benefits and lasting impact of the BSBE initiative
- **Quarterly estimated direct costs: $1,470,010**

Q3 2025 Milestones and Projected Direct Expenses

- Register BSBE farmers
- Provide on-going NCAT technical assistance to BSBE farmers
- Assist farmers in marketing climate-smart commodities
- Collect soil and woody biomass samples
- Build a BSBE Network
- Track CSAF Commodity Economic Impact
- Engage investors and funders along the CSAF supply chain
- Monitor Key Performance Indicators (KPIs) to better analyze the full economic benefits and lasting impact of the BSBE initiative
- **Quarterly estimated direct costs: $1,470,010**

Q4 2025 Milestones and Projected Direct Expenses

- Register 500 BSBE farmers at the close of year three
- Provide on-going NCAT technical assistance to BSBE farmers
- Assist farmers in marketing climate-smart commodities
- Collect soil and woody biomass samples
- Build a BSBE Network
- Track CSAF Commodity Economic Impact
- Engage investors and funders along the CSAF supply chain
- Monitor Key Performance Indicators (KPIs) to better analyze the full economic benefits and lasting impact of the BSBE initiative
- Convene partners to evaluate the effectiveness of the BSBE initiatives and modify strategies for the subsequent calendar year
- **Quarterly estimated direct costs: $1,470,010**

Estimated indirect costs for year four: $67,929

Q1 2026 Milestones and Projected Direct Expenses

- Register BSBE farmers
- Provide on-going NCAT technical assistance to BSBE farmers
- Assist farmers in marketing climate-smart commodities
- Collect soil and woody biomass samples
- Build a BSBE Network
- Track CSAF Commodity Economic Impact
- Engage investors and funders along the CSAF supply chain
- Conduct farmer field days
- Monitor Key Performance Indicators (KPIs) to better analyze the full economic benefits and lasting impact of the BSBE initiative
- **Quarterly estimated direct costs: $929,612**

Q2 2026 Milestones and Projected Direct Expenses

- Register BSBE farmers
- Provide on-going NCAT technical assistance to BSBE farmers
- Assist farmers in marketing climate-smart commodities
- Collect soil and woody biomass samples
- Build a BSBE Network
- Track CSAF Commodity Economic Impact
- Engage investors and funders along the CSAF supply chain
- Conduct farmer field days
- Monitor Key Performance Indicators (KPIs) to better analyze the full economic benefits and lasting impact of the BSBE initiative

- **Quarterly estimated direct costs: $929,612**

Q3 2026 Milestones and Projected Direct Expenses

- Register BSBE farmers
- Provide on-going NCAT technical assistance to BSBE farmers
- Assist farmers in marketing climate-smart commodities
- Collect soil and woody biomass samples
- Build a BSBE Network
- Track CSAF Commodity Economic Impact
- Engage investors and funders along the CSAF supply chain
- Monitor Key Performance Indicators (KPIs) to better analyze the full economic benefits and lasting impact of the BSBE initiative
- **Quarterly estimated direct costs: $929,612**

Q4 2026 Milestones and Projected Direct Expenses

- Register 600 BSBE farmers at the close of year four
- Provide on-going NCAT technical assistance to BSBE farmers
- Assist farmers in marketing climate-smart commodities
- Launch BSBE Convening Two
- Collect soil and woody biomass samples
- Build a BSBE Network
- Track CSAF Commodity Economic Impact
- Engage investors and funders along the CSAF supply chain
- Monitor Key Performance Indicators (KPIs) to better analyze the full economic benefits and lasting impact of the BSBE initiative

- Convene partners to evaluate the effectiveness of the BSBE initiatives and modify strategies for the subsequent calendar year
- **Quarterly estimated direct costs: $929,612**

Estimated indirect costs for year five: $67,929

Q1 2027 Milestones and Projected Direct Expenses

- Provide on-going NCAT technical assistance to BSBE farmers
- Assist farmers in marketing climate-smart commodities
- Collect soil and woody biomass samples
- Build a BSBE Network
- Track CSAF Commodity Economic Impact
- Engage investors and funders along the CSAF supply chain
- Conduct farmer field days
- Monitor Key Performance Indicators (KPIs) to better analyze the full economic benefits and lasting impact of the BSBE initiative
- **Quarterly estimated direct costs: $468,800.42**

Q2 2027 Milestones and Projected Direct Expenses

- Provide on-going NCAT technical assistance to BSBE farmers
- Assist farmers in marketing climate-smart commodities
- Collect soil and woody biomass samples
- Build a BSBE Network
- Track CSAF Commodity Economic Impact
- Engage investors and funders along the CSAF supply chain
- Conduct farmer field days
- Monitor Key Performance Indicators (KPIs) to better analyze the full economic benefits and lasting impact of the BSBE initiative

- **Quarterly estimated direct costs: $468,800.42**

Q3 2027 Milestones and Projected Direct Expenses

- Provide on-going NCAT technical assistance to BSBE farmers
- Assist farmers in marketing climate-smart commodities
- Collect soil and woody biomass samples
- Build a BSBE Network
- Track CSAF Commodity Economic Impact
- Engage investors and funders along the CSAF supply chain
- Monitor Key Performance Indicators (KPIs) to better analyze the full economic benefits and lasting impact of the BSBE initiative
- **Quarterly estimated direct costs: $468,800.42**

Q4 2027 Milestones and Projected Direct Expenses

- Provide on-going NCAT technical assistance to BSBE farmers
- Assist farmers in marketing climate-smart commodities
- Collect soil and woody biomass samples
- Build a BSBE Network
- Track CSAF Commodity Economic Impact
- Engage investors and funders along the CSAF supply chain
- Monitor Key Performance Indicators (KPIs) to better analyze the full economic benefits and lasting impact of the BSBE initiative
- Convene partners to evaluate the effectiveness of the BSBE initiatives and modify strategies for the subsequent calendar year
- **Quarterly estimated direct costs: $468,800.42**

Climate-Smart Practices and Limitations

Climate-Smart practices under this grant shall be limited to the following practices:

NRCS Practice Code (if applicable)	Practice Name
328	Conservation crop rotation
340	Cover crops
345	Reduced Tillage
386	Field Borders
528	Grazing and Pastures
311	Alley Cropping
379	Forest Farming
381	Silvopasture
391	Riparian Buffers
422	Hedgerow Plantings
612	Tree and Shrub Establishment
645	Habitat Management

All practices applied under this grant will follow NRCS practice standards unless noted below:

Practice Name	Alternative Practice Standards

Partnerships for Climate-Smart Commodities Data Dictionary for Recipients

February 2023

Version 1.0

Partnerships for Climate-Smart Commodities Data Dictionary for Recipients
February 2023

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Overview of Reporting Requirements

Grant recipients are required to submit reports to document their performance under the *Partnerships for Climate-Smart Commodity* funding opportunity. These submissions will be required to use the Microsoft Excel workbook templates provided by USDA. The workbooks contain a series of worksheets that collect data in a standardized format to ensure data quality and allow for aggregation and summary of this information. The entire workbook must be submitted quarterly, with updates to all applicable worksheets. This guide is divided into three sections. The *Overview of Reporting Requirements* section summarizes the layout of the reporting workbook and presents the data elements included in each worksheet. It also describes additional documents that must be submitted to supplement the performance reports. The *Data Definitions* section provides descriptions and allowable response options for each data element. The guide also indicates whether each data element is required, applicable at times, or optional; as well as how frequently each data element must be updated. Finally, the *Appendices* contain practice and commodity lists that will be used for these reports. Reporting is necessary for USDA oversight of this effort. The data elements required for inclusion in the quarterly performance reports allow USDA to conduct selected audits to review whether producers are receiving federal funds from multiple sources for the same purpose; to determine whether GHG benefits from implementation of climate-smart agriculture and forestry (CSAF) practices are being estimated accurately; and for other purposes deemed appropriate by USDA.

The reporting worksheets collect information at four levels: project, partner, producer, and field. Descriptions of each level:

> **Project level**: Information about activities and impacts at a whole project/aggregate level (i.e., reflecting all activities under the grant agreement). Some project-level reporting is further subdivided by commodity type or a combination of commodity and CSAF practice(s) (commodity x practice).
> **Partner level:** Information about activities related to a single organization (recipient, subrecipient, contractor, or other partner) within a project.
> **Producer level**: Information about individual producers who have one or more farms enrolled in a project.
> **Field level**: Information about individual fields enrolled in a project.

Certain data elements are required to be reported for each producer and field enrolled in a project. In order to minimize the burden associated with data collection and to enable USDA to match data to existing records, these producer- and field-specific records must use the producer's established FSA Farm, Tract and Field IDs, and report the State and County associated with the Farm ID. Associated data entered in conjunction with these data elements, such as Producer Name, must match the data contained in the customer's Business Partner record, and the Farm Operating Plan in Business File for that Farm ID. Disclosure of this information is protected under Section 1619 of the Food, Conservation, and Energy Act of 2008 (PL 110- 246), 7 U.S.C. 8791. Additionally, Departmental Regulation 4370-001 provides USDA's policies for collecting demographic data, including race, ethnicity and gender. Providing demographic information is voluntary and at the discretion of the customer. Demographic information is used by USDA for statistical purposes only and will not be used to determine an applicant's eligibility for programs or services for which they apply.

Note: For purposes of this guide, "farm" refers to the operation from which climate-smart commodities are produced and may represent farms, ranches, forests or other operations. Similarly, "field" refers to the individual land units at which climate-smart practices are being implemented to produce climate-smart commodities and may represent lots, farmsteads or other units, depending on the type of operation and commodity. The use of "Farm", "Tract" and "Field" align with the FSA definitions; for example, "A field is a part of a farm that is separated from the balance of the farm by a permanent boundary, such as; fences, permanent waterways, woodlands, croplines in cases where farming practices make it probable that this cropline is not subject to change, and other similar features."

Partnerships for Climate-Smart Commodities Data Dictionary for Recipients
February 2023

The following tables list the data elements included in each reporting worksheet, along with a brief description of each item.

Project Summary

These data will be collected about each project. Cumulative results are reported each quarter. Report last quarter's entry if there has been no change in this quarter.

Table 1. Project Summary elements

Data element name	Description	Frequency
Commodity type	Type of commodity(ies) incentivized by the project	Quarterly
Commodity sales	Indicates sales of the commodity(ies) related to the project occurred this quarter	Quarterly
Farms enrolled	Indicates enrollment activities occurred this quarter	Quarterly
GHG calculation methods	Methods used to calculate greenhouse gas (GHG) benefits	Quarterly
GHG cumulative calculation	Method used to calculate cumulative GHG benefits	Quarterly
Cumulative GHG benefits	Whole project estimate of total GHG (CO2e) emission reductions	Quarterly
Cumulative carbon stock	Whole project estimate of total carbon sequestration	Quarterly
Cumulative CO2 benefit	Whole project estimate of total CO2 emission reductions	Quarterly
Cumulative CH4 benefit	Whole project estimate of total CH4 emission reductions	Quarterly
Cumulative N2O benefit	Whole project estimate of total N2O emission reductions	Quarterly
Offsets produced	Amount of carbon offsets produced by project	Quarterly
Offsets sale	Name of marketplace where carbon offsets were sold	Quarterly
Offsets price	Price of carbon in offset sales	Quarterly
Insets produced	Amount of carbon insets produced by project	Quarterly
Cost of on-farm TA	Cost of on-farm technical assistance (TA) provided to producers	Quarterly
MMRV cost	Cost of measurement, monitoring, reporting, and verification (MMRV) activities	Quarterly
GHG monitoring method	Methods used by project to monitor GHG benefits (up to 5)	Quarterly
GHG reporting method	Methods used by project to report on GHG benefits (up to 5)	Quarterly
GHG verification method	Methods used to verify GHG benefits (up to 5)	Quarterly

Partner Activities

These data will be collected at the project level. Each row in this worksheet will represent one organization involved in the project, including the recipient and all contributing partners. A partner is any organization that is receiving project funds or providing matching contributions (funds or in-kind contributions) to the project. While the recipient must complete one row for their own organization, not all data elements apply to the recipient. These exceptions are noted in the detailed descriptions of the specific elements in the *Data Definitions* section of this guide. Data are reported cumulatively each quarter. Report last quarter's entry if there has been no change in this quarter.

Table 2. Partner Activities elements

Data element name	Description	Frequency
Partner ID	Unique ID for each partner	One-time
Partner name	Name of partner organization	One-time
Partner type	Type of organization	One-time
Partner POC	Partner point of contact name	As applicable
Partner POC email	Partner point of contact email	As applicable
Partnership start date	Start of partnership on project	One-time
Partnership end date	End of partnership on project	As applicable
New partnership	Indicator for partner organizations that have no prior work with the recipient	As applicable
Partner total requested	Total amount requested to date by partner from recipient	Quarterly
Total match contribution	Total amount of match contribution by partner to date	Quarterly
Total match incentives	Total amount of match contribution by partner for incentives	Quarterly
Match type	Top 3 types of match contribution by partner, other than incentives	Quarterly
Match amount	Value of match contributions by type	Quarterly
Training provided	Top 3 types of training provided to the partner through project	Quarterly
Activity by partner	Top 3 types of activities provided by this partner to producers or other partners	Quarterly
Activity cost	Approximate cost per activity type provided by partner to producers or other partners	Quarterly
Products supplied	Names of products supplied to producers as part of project activities or incentives	Quarterly
Product source	Supplier or source of products supplied to producers as part of project activities or incentives	Quarterly

Marketing Activities

These data will be collected at the project level. Each row in this worksheet will correspond to one commodity for which the project enrolls fields and one marketing channel used to sell that commodity by the project or producers enrolled in the project. Data are reported for the current quarter and are not cumulative. If no sales of the commodity were reported during a quarter, do not complete this worksheet for that quarter.

Table 3. Marketing Activities elements

Data element name	Description	Frequency
Commodity type	Type of commodity incentivized by the project	Quarterly
Marketing channel type	Type of marketing channels used	Quarterly
Number of buyers	Number of buyers per marketing channel	Quarterly
Names of buyers	Names of buyers in the marketing channel	Quarterly
Marketing channel geography	Geography of marketing channel	Quarterly
Value sold	Value of commodity sold by marketing channel	Quarterly
Volume sold	Volume of commodity sold by marketing channel	Quarterly
Price premium	Price premium of commodity by marketing channel	Quarterly
Price premium to producer	Percent of price premium that goes to the producer	Quarterly
Product differentiation method	Top 3 types of product differentiation methods used	Quarterly
Marketing method	Top 3 types of marketing methods used	Quarterly
Marketing channel identification method	Top 3 ways marketing channel was identified	Quarterly
Traceability method	Top 3 types of supply chain traceability methods used	Quarterly

Producer Enrollment

These data will be collected at the producer level about each farm enrolled in the project. In this worksheet, each row will correspond to one farm that has at least one field enrolled in the project. Data are reported when a producer first enrolls one or more fields in the project. If a producer is enrolled in the project for multiple years, review the farm characteristics each time a new contract is signed and provide any necessary updates. The quarterly submission should contain information about each farm initially enrolled in the project during that quarter and for updates to farms that have re-enrolled during that quarter, as applicable. If no farms are enrolled during that quarter, do not complete this worksheet for that quarter.

Table 4. Producer Enrollment elements

Data element name	Description	Frequency
Farm ID	Unique Farm ID assigned by FSA	
State or territory	State name (must match FSA farm enrollment data)	
County of residence	County name (must match FSA farm enrollment data)	
Producer data change	Indicator that producer data was updated at re-enrollment	As applicable
Producer start date	Contract start date	Enrollment
Producer name	Name of primary operator	Enrollment
Underserved status	Indicator the primary operator is considered underserved and/or a small producer	Enrollment
Total area	Total area of enrolled operation	Annual
Total crop area	Total crop area in enrolled operation enrolled	Annual
Total livestock area	Total livestock confinement, pasture and rangeland in enrolled operation	Annual
Total forest area	Total forest area in enrolled operation	Annual
Livestock type	Top 3 types of livestock on enrolled operation	Annual
Livestock head	Total livestock currently managed (by type)	Annual
Organic farm	Indicator that part of the farm is certified or transitioning organic	Annual
Organic fields	Indicator that any of the enrolled fields are certified or transitioning organic	Annual
Producer motivation	Motivation for participation	Annual
Producer outreach	Top 3 types of outreach provided to producer	Annual
CSAF experience	Indicator of prior implementation of CSAF practices at this farm	Annual
CSAF federal funds	Indicator of prior receipt of federal funds for CSAF practices	Annual
CSAF state or local funds	Indicator of prior receipt of state funds for CSAF practices	Annual
CSAF nonprofit funds	Indicator of prior receipt of nonprofit funds for CSAF practices	Annual
CSAF market incentives	Indicator of prior receipt of market incentives for CSAF practices	Annual

Field Enrollment

These data will be collected about each field enrolled in the project. In this worksheet, each row corresponds to one field x commodity combination enrolled in the project. Generally, data are reported once for each field, at its initial enrollment. The quarterly submission should contain information about each field initially enrolled in the project during that quarter. If no fields are enrolled during that quarter, do not complete this worksheet for that quarter. If a field is enrolled for multiple years, any relevant changes, such as a new ID number or changes to the commodity or practice combinations should be entered in this worksheet during the quarter it is re-enrolled, or as applicable.

Table 5. Field Enrollment elements

Data element name	Description
Farm ID	Unique Farm ID assigned by FSA
Tract ID	Unique Tract ID assigned by FSA
Field ID	Unique Field ID assigned by FSA
State or territory of field	State name
Physical County of field	Physical county name must match FSA farm records
Prior Field ID	Previous Field ID when reconstitution of farm results in new Field IDs
Field data change	Indicator that field data has changed from initial enrollment
Contract start date	Start date of contract
Total field area	Size of enrolled field
Commodity category	Category of commodity(ies) produced
Commodity type	Type of commodity(ies) produced
Baseline yield	Average yield of commodity in 3 years prior to enrollment
Baseline yield location	Location for which baseline yield is provided
Field land use	Most common land use in field in past 3 years
Field irrigated	Most common irrigation type in field in past 3 years
Field tillage	Most common tillage in field in past 3 years
Practice past extent - farm	Extent of operation that implemented this practice prior to project enrollment
Field any CSAF practice	Indicator for prior CSAF practices in this field in past 3 years
Practice past use - this field	Indicator of prior use of this practice in this field in the past 3 years
Practice type	CSAF practice(s) that will be implemented in enrolled field (up to 7)
Practice standard	Organization that developed CSAF practice standard implemented in field
Planned practice implementation year	Year that practice is planned to be implemented
Practice extent	Area or number of animals for which practice is implemented
Follow-on questions	Follow-on questions by practice type (see Table 11)

Farm Summary

These data will be collected about each farm enrolled in the project. In this worksheet, each row will correspond to one farm that has at least one field enrolled in the project. The quarterly submission should contain updates to any data elements that have changed for each farm enrolled in the project during that quarter. If there are no changes from the previous quarter, do not complete this worksheet for that quarter. Data are not cumulative.

Table 6. Farm Summary elements

Data element name	Description	Frequency
Farm ID	Unique Farm ID assigned by FSA	
State or territory	State name	
County of residence	County name	
Producer TA received	Type of technical assistance provided to producer	Quarterly
Producer incentive amount	Total financial incentive provided to the producer	Quarterly
Incentive reason	Top 4 reason(s) for financial incentives provided to producer	Quarterly
Incentive structure	Top 4 units on which financial incentives are structured	Quarterly
Incentive type	Top 4 type(s) of financial incentives provided to producer	Quarterly
Payment on enrollment	Extent of payment provided to producer upon enrollment	Quarterly
Payment on implementation	Extent of payment provided to producer upon implementation of CSAF practices	Quarterly
Payment on harvest	Extent of payment provided to producer upon harvest or slaughter	Quarterly
Payment on MMRV	Extent of payment provided to producer upon reporting or verification	Quarterly
Payment on sale	Extent of payment provided to producer upon sale of commodity	Quarterly

Field Summary

These data will be collected about each field enrolled in the project for a commodity x practice(s) combination. In this worksheet, each row will correspond to one field x commodity x practice(s) combination enrolled in the project. Data for each field will be reported quarterly and are not cumulative. Report data for any elements that have an update in that quarter. Greenhouse gas benefit estimates must be entered upon practice completion or annually, as appropriate. If there are no changes from the previous quarter, do not complete this worksheet for that quarter. This worksheet includes a section to report the "official" estimate of GHG benefits – amounts of greenhouse gas emissions reduced and carbon sequestered – for the field. These quantities refer to the estimates that are used to calculate the project's aggregate impact (reported in Table 1). Tables 8 and 9 are used to report alternate estimates of the field-level GHG benefits when additional methods are used to model (Table 8) or measure (Table 9) these impacts. Any field that can use COMET-Planner must submit those results, either as the official or alternate model.

Table 7. Field Summary elements

Data element name	Description	Frequency
Farm ID	Unique Farm ID assigned by FSA	
Tract ID	Unique Tract ID assigned by FSA	
Field ID	Unique Field ID assigned by FSA	
State or territory of field	State name	
County of field	County name	
Commodity type	Type of commodity produced from field	Quarterly
Practice type	Type of practice(s) incentivized in field (up to seven)	Quarterly
Date practice complete	Date that practice implementation is certified complete	Quarterly
Contract end date	End date of contract	Quarterly
MMRV assistance provided	Indicator that MMRV assistance is provided to field	Quarterly
Marketing assistance provided	Indicator that marketing assistance provided for commodity from field	Quarterly
Incentive per acre or head	Indicator that a per acre/head incentives is provided for the CSAF practice(s) on this field	Quarterly
Field commodity value	Value of commodity produced from field	Quarterly
Field commodity volume	Volume of commodity produced from field	Quarterly
Cost of implementation	Total cost of practice implementation in field	Quarterly
Cost coverage	Percent of total cost of implementation of practice covered by project incentives	Quarterly
Field GHG monitoring	Methods used to monitor GHG benefits in field (up to 3)	Quarterly
Field GHG reporting	Methods used to report on GHG benefits for field (up to 3)	Quarterly
Field GHG verification	Methods used to verify GHG benefits for field (up to 3)	Quarterly
Field GHG calculations	Methods used to calculate GHG benefits for field	Quarterly
Field official GHG calculation	Method used to calculate official GHG benefits for field	Quarterly
Field official GHG ER	Official estimate of total GHG emission reductions for field	Quarterly
Field official carbon stock	Official estimate of total carbon sequestration for field	Quarterly
Field official CO2 ER	Official estimate of total CO2 emission reductions for field	Quarterly
Field official CH4 ER	Official estimate of total CH4 emission reductions for field	Quarterly
Field official N2O ER	Official estimate of total N2O emission reductions for field	Quarterly
Field offsets produced	Amount of carbon offsets produced in field	Quarterly
Field insets produced	Amount of carbon insets produced in field	Quarterly
Other field measurements	Indicator that field data was collected for reasons other than GHG benefit estimation	Quarterly

GHG Benefits - Alternate Modeled

If greenhouse gas benefits are modeled for the same field using multiple methods, the results for the alternate models are reported in this worksheet. The "alternate" models refer to those model results that were not used in the calculation of the project's aggregate impact (as reported in Table 1). Any field that can use COMET-Planner must submit those results, either as the official or alternate model. These data will be collected about the modeled GHG benefits for each field x commodity x practice(s) combination. In this worksheet, each row will correspond to one field enrolled in the project. Data are not cumulative. Each quarterly submission should include information for all fields that have new modeled data. Greenhouse gas benefit estimates must be entered upon practice completion or annually, as appropriate.

Table 8. GHG Benefits – Alternate Modeled elements

Data element name	Description	Frequency
Farm ID	Unique Farm ID assigned by FSA	
Tract ID	Unique Tract ID assigned by FSA	
Field ID	Unique Field ID assigned by FSA	
State or territory of field	State name	
County of field	County name	
Commodity type	Type of commodity(ies) produced from the field (up to 6)	Annual
Practice type	Type of practice(s) incentivized in field (up to 7)	Annual
GHG model	Model used to calculate GHG benefits	Annual
Model start date	Start date of model run	Annual
Model end date	End date of model run	Annual
Total GHG benefits estimated	Estimate of total GHG benefits for field	Annual
Total carbon stock estimated	Estimate of total change in carbon stock for field	Annual
Total CO2 estimated	Estimate of total CO2 emission reductions for field	Annual
Total CH4 estimated	Estimate of total CH4 emission reductions for field	Annual
Total N2O estimated	Estimate of total N2O emission reductions for field	Annual

GHG Benefits - Measured

Projects must report the results of any carbon stock or greenhouse gas emission measurements in this worksheet. These data will be collected at the field level. Each row will represent a separate measurement method used to calculate GHG benefits for a given field. Data are reported once per year of measurement and are not cumulative. Each quarterly submission should include information for any field for which there are new soil samples or new calculations of annual GHG benefits based on actual measurements.

Table 9. GHG Benefits - Measured data elements

Data element name	Description	Frequency
Farm ID	Unique Farm ID assigned by FSA	
Tract ID	Unique Tract ID assigned by FSA	
Field ID	Unique Field ID assigned by FSA	
State	State name	
County	County name	
GHG measurement method	Method of measurement	Annual
Lab name	Entity that conducted analysis	Annual
Measurement start date	Start date of measurements	Annual
Measurement end date	End date of measurements	Annual
Total CO2 reduction calculated	Calculation of total CO2 reduction	Annual
Total carbon stock change calculated	Calculation of change in carbon stock	Annual
Total CH4 reduction calculated	Calculation of total CH4 reduction	Annual
Total N2O reduction calculated	Calculation of total N2O reduction	Annual
Soil sample result	Numeric result from soil sample	Annual
Measurement type	Type of analysis conducted	Annual

Additional Environmental Benefits

Projects that track additional environmental benefits (e.g., water quality improvements) from enrolled fields report results in this worksheet. These data will be collected about each field. Each row in this worksheet will correspond to an enrolled field. Data are not cumulative. Estimates of environmental benefits must be entered upon practice completion or annually, as appropriate.

Table 10. Additional Environmental Benefits elements

Data element name	Description	Frequency
Farm ID	Unique Farm ID assigned by FSA	
Tract ID	Unique Tract ID assigned by FSA	
Field ID	Unique Field ID assigned by FSA	
State	State name	
County	County name	
Environmental benefits	Indicator that project tracks other environmental benefits	Annual
Reduction in nitrogen loss	Indicator that project tracks reductions in nitrogen loss	Annual
Amount	Amount	Annual
Purpose	Purpose of tracking those co-benefits	Annual
Reduction in phosphorus loss	Indicator that project tracks reductions in phosphorus loss	Annual
Amount	Amount	Annual
Purpose	Purpose of tracking those co-benefits	Annual
Other water quality	Indicator that project tracks other water quality improvements	Annual
Type	Type of water quality metric being tracked	Annual
Amount	Amount	Annual
Purpose	Purpose of tracking those co-benefits	Annual
Water quantity	Indicator that project tracks reduced water use	Annual
Amount	Amount	Annual
Purpose	Purpose of tracking those co-benefits	Annual
Reduced erosion	Indicator that project tracks reductions in soil erosion	Annual
Amount	Amount	Annual
Purpose	Purpose of tracking those co-benefits	Annual
Reduced energy use	Indicator that project tracks reductions in energy use	Annual
Amount	Amount	Annual
Purpose	Purpose of tracking those co-benefits	Annual
Avoided land conversion	Indicator that project tracks reductions in land conversion	Annual
Amount	Amount	Annual
Purpose	Purpose of tracking those co-benefits	Annual
Improved wildlife habitat	Indicator that project tracks improvements in wildlife habitat	Annual
Amount	Amount	Annual
Purpose	Purpose of tracking those co-benefits	Annual

Supplemental Data Submission

Project MMRV Plan

Definition of MMRV elements:

Measurement: Quantification of the greenhouse gas benefits (reduction or capture) using mathematical models and/or direct physical measurements in the field

Monitoring: Ongoing review and confirmation that the climate-smart practice has been implemented according to the agreed upon standard and documentation of any changes in the site, implementation, or GHG emissions impacts over time

Reporting: Documenting and sharing monitoring and measurement results with project partners, the recipient, and any third-party verification organization

Verification: Independent confirmation that measurement, monitoring and reporting information are complete, accurate and reliable.

Projects must submit an MMRV plan that includes details about how each of the following are addressed:

- Quantification approach, including:
  - GHG models used
  - GHG measurement plan (if applicable)
  - Approach to quantifying additional environmental benefits, if applicable (e.g., water quality, habitat)
- Verification approach:
  - Compliance criteria
  - Verification plan/methodology
- Approach to ensuring:
  - Additionality
  - Permanence
  - Leakage
  - Impacts of weather
- Plan for non-compliance

If the project is using a specific MMRV methodology or approach developed by the recipient, a project partner, or an outside organization, the project can submit documentation associated with the methodology as long as the documentation addresses each of the above categories.

If the project is tracking other environmental benefits (as reported in the *Additional Environmental Benefits* worksheet), include a description of the methodology and tools used to track and report on these benefits.

Field modeled GHG benefit reports

Results from any models besides COMET-Planner used to estimate GHG benefits must also be submitted as a separate report. This includes projects running COMET-Farm. The full results of any model can be submitted in the native/standard format generated by the modeling tool and must include the following Unique IDs in the report or in the file name: State, County, Farm ID, Tract ID, Field ID.

Field direct measurement results

For any direct physical measurements in the field, measurement results must be submitted as a separate report and must include the following Unique IDs in the report or in the file name: State, County, Farm ID, Tract ID, Field ID. Measurement results reports must include the name of the equipment used for sampling or data collection, the name of the lab that analyzed the data, and the analytical method used.

Sample report types include soil analysis reports, summarized results of portable emissions analyzers or flux towers, water quality analyses, and plant species counts. These could be collected for the purposes of determining GHG emission reductions or carbon sequestration amounts, for calibration of tools or models, for tracking other environmental benefits, or for other reasons.

Data Descriptions

This section provides descriptions and allowable response options for each data element. The guide also indicates whether each data element is required, applicable at times, or optional; as well as how frequently each data element must be updated.

Unique IDs

Project ID: Unique ID at the project level – "Award Identifying Number" shown on award documentation
Partner ID: Unique ID at the partner level – use EIN; if no EIN, a unique ID will be assigned for use in these reports
State or territory of operation: State or territory name
County of operation: Physical county name
Farm ID: Unique ID at the operation level assigned by Farm Service Agency (FSA)
Tract ID: Unique ID at the tract level assigned by FSA
Field ID: Unique ID at the field level assigned by FSA

Project Summary

Commodity type

Data element name: Commodity type

Reporting question: What climate-smart commodity types are produced by this project?

Description: Type of commodity incentivized by the project. These commodities include those for whom farmers are directly receiving incentives or other types of marketing support. See full list of commodity options in Appendix B. List one commodity per row.

Data type: List

Select multiple values: No

Measurement unit: Category

Allowed values: FSA commodity list

Logic: None – all respond

Required: Yes

Data collection level: Project

Data collection frequency: Quarterly

Commodity sales

Data element name: Commodity sales

Reporting question: Did project activities result in sales this quarter of the commodity(ies) produced by this project?

Description: Indicator of sales of commodity(ies) related to project activities. If sales are reported, complete the *Marketing Activities* worksheet (Table 3) as part of the quarterly performance report.

Data type: List

Select multiple values: No

Measurement unit: Category

Allowed values:

- Yes
- No

Logic: None – all respond

Required: Yes

Data collection level: Project

Data collection frequency: Quarterly

Farms enrolled

Data element name: Farms enrolled

Reporting question: Did the project enroll any producers or fields this quarter?

Description: Indicator that the project enrolled producers or fields. If enrollment activities occurred this quarter, complete the *Producer Enrollment* and *Field Enrollment* worksheets (Tables 4 and 5) as part of the quarterly performance report.

Data type: List

Select multiple values: No

Measurement unit: Category

Allowed values:

- Yes
- No

Logic: None – all respond

Required: Yes

Data collection level: Project

Data collection frequency: Quarterly

GHG calculation methods

Data element name: GHG calculation methods

Reporting question: What methods is the project using to calculate GHG benefits?

Description: List the way(s) that GHG benefits are being measured and calculated by the project this quarter.

Data type: List

Select multiple values: No

Measurement unit: Category

Allowed values:

- Models
- Direct field measurements
- Both

Logic: None – all respond

Required: Yes

Data collection level: Project

Data collection frequency: Quarterly

GHG cumulative calculation

Data element name: GHG cumulative calculation

Reporting question: What method(s) was used to calculate the total cumulative GHG benefits reported here?

Description: List the method(s) that was used to calculate the total cumulative GHG benefits reported by the project this quarter.

Data type: List

Select multiple values: No

Measurement unit: Category

Allowed values:
- Models
- Direct field measurements
- Both

Logic: None – all respond

Required: Yes

Data collection level: Project

Data collection frequency: Quarterly

Cumulative GHG benefits

Data element name: Cumulative GHG benefits

Reporting question: What are the project's estimated total GHG emission reductions (CO2eq) to date?

Description: Total cumulative estimated greenhouse gas emission reductions from practice implementation. This is updated quarterly. If there are no changes, enter the same number as the previous quarter.

Data type: Decimal

Select multiple values: No

Measurement unit: Metric tons CO_2eq

Allowed values: 0-10,000,000

Logic: None – all respond

Required: Yes

Data collection level: Project

Data collection frequency: Quarterly

Cumulative carbon stock

Data element name: Cumulative carbon stock

Reporting question: How much carbon has the project sequestered to date?

Description: Estimated total cumulative change in carbon stock based on practice implementation. This is updated quarterly. If there are no changes, enter the same numbers as the previous quarter. Conversion rate is one ton of carbon = 3.67 tons of CO_2eq.

Data type: Decimal

Select multiple values: No

Measurement unit: Metric tons CO_2eq

Allowed values: 0-10,000,000

Logic: None – all respond

Required: Yes

Data collection level: Project

Data collection frequency: Quarterly

Cumulative CO2 benefit

Data element name: Cumulative CO2 benefit

Reporting question: What are the project's estimated total cumulative CO2 emission reductions to date?

Description: Estimated total cumulative carbon dioxide emission reductions based on practice implementation. This is updated quarterly. If there are no changes, enter the same number as the previous quarter.

Data type: Decimal

Select multiple values: No

Measurement unit: Metric tons CO_2

Allowed values: 0-10,000,000

Logic: None – all respond

Required: Yes

Data collection level: Project

Data collection frequency: Quarterly

Cumulative CH4 benefit

Data element name: Cumulative CH4 benefit

Reporting question: What are the project's estimated total CH4 emission reductions to date?

Description: Estimated total cumulative methane reduction based on practice implementation. This is updated quarterly. If there are no changes, enter the same numbers as the previous quarter. Conversion rate is one ton of CH_4 = 25 tons of CO_2eq.

Data type: Decimal

Select multiple values: No

Measurement unit: Metric tons CH4 reduced in CO_2eq

Allowed values: 0-10,000,000

Logic: None – all respond

Required: Yes

Data collection level: Project

Data collection frequency: Quarterly

Cumulative N20 benefit

Data element name: Cumulative N2O benefit

Reporting question: What are the project's estimated total N2O emission reductions to date?

Description: Estimated total cumulative nitrous oxide reduction based on practice implementation. This is updated quarterly. If there are no updated numbers enter the same number as the previous quarter. Conversion rate is one ton of N_2O = 298 tons of CO_2eq.

Data type: Decimal

Select multiple values: No

Measurement unit: Metric tons N2O reduced in CO_2eq

Allowed values: 0-10,000,000

Logic: None – all respond

Required: Yes

Data collection level: Project

Data collection frequency: Quarterly

Offsets produced

Data element name: Offsets produced

Reporting question: How many carbon offsets have been produced in the project?

Description: Total carbon offsets produced by enrolled project fields during the quarter. Offsets are defined as having been verified and certified using an accepted standard and sold into the carbon marketplace.

Data type: Decimal

Select multiple values: No

Measurement unit: Metric tons CO_2eq

Allowed values: 0-10,000,000

Logic: None – all respond

Required: Yes

Data collection level: Project

Data collection frequency: Quarterly

Offsets sale

Data element name: Offsets sale

Reporting question: To what marketplace(s) were carbon offsets sold?

Description: Marketplaces to which carbon offsets produced by enrolled project fields were sold. Offsets are defined as having been verified and certified using an accepted standard and sold into the carbon marketplace. List each marketplace name. Separate names with commas.

Data type: Text

Select multiple values: NA

Measurement unit: Name

Allowed values: Text

Logic: Respond if >0 to 'Offsets produced'

Required: Yes

Data collection level: Project

Data collection frequency: Quarterly

Offsets price

Data element name: Offsets price

Reporting question: What was the average price of carbon received for offsets?

Description: Average price per metric ton paid for carbon offsets produced by enrolled project fields. Offsets are defined as having been verified and certified using an accepted standard and sold into the carbon marketplace.

Data type: Decimal

Select multiple values: No

Measurement unit: Dollars per metric ton

Allowed values: 0-500

Logic: Respond if >0 to 'Offsets produced'

Required: Yes

Data collection level: Project

Data collection frequency: Quarterly

Insets produced

Data element name: Insets produced

Reporting question: How many carbon insets have been produced in the project?

Description: Total carbon insets produced by enrolled fields during the quarter. Insets are defined as having been verified and certified using an accepted standard and accounted for within Scope 3 emissions for a firm.

Data type: Decimal

Select multiple values: No

Measurement unit: Metric tons CO_2eq

Allowed values: 0-10,000,000

Logic: None – all respond

Required: Yes

Data collection level: Project

Data collection frequency: Quarterly

Cost of on-farm TA

Data element name: Cost of on-farm TA

Reporting question: What is the total amount that has been spent to provide on-farm TA?

Description: Total cost of any field- or practice-specific technical assistance provided by the project (by recipient or partners) to any producers. This is updated quarterly. If there are no changes, enter the same number as the previous quarter.

Data type: Decimal

Select multiple values: No

Measurement unit: Dollars

Allowed values: $0-$50,000,000

Logic: None – all respond

Required: Yes

Data collection level: Project

Data collection frequency: Quarterly

MMRV cost

Data element name: MMRV cost

Reporting question: What is the total amount that has been spent on MMRV activities?

Description: Total cost of all MMRV activities paid for by the project (recipient or partners). MMRV components are defined as measurement (calculations or estimations of GHG emissions), monitoring (ongoing review and confirmation that the climate-smart practices have been implemented according to the agreed upon standard and documentation of any changes in the site, implementation, or GHG emissions impacts over time), reporting (documenting and sharing monitoring and measurement results with project partners, the recipient, and any third-party verification organization), and verification (independent confirmation that measurement, monitoring and reporting information are complete, accurate and reliable). This is updated quarterly. If there are no changes, enter the same number as the previous quarter.

Data type: Decimal

Select multiple values: No

Measurement unit: Dollars

Allowed values: $0-$50,000,000

Logic: None – all respond

Required: Yes

Data collection level: Project

Data collection frequency: Quarterly

GHG monitoring method

Data element name: GHG monitoring 1-5

Reporting question: How did the project monitor GHG benefits?

Description: Up to the five most common forms of monitoring GHG benefits used this quarter as part of MMRV requirements. Monitoring is defined as ongoing review and confirmation that the climate-smart practice has been implemented according to the agreed upon standard and documentation of any changes in the site, implementation, or GHG emissions impacts over time. Include up to 5 methods, based on which methods are most commonly used for this project. The worksheet provides five columns with a drop-down list of the allowed values. Choose one value for each column. If fewer than 5 GHG monitoring methods are used, leave unnecessary columns blank. If "other" is chosen, use the additional column to enter other GHG monitoring methods as free text.

Data type: List

Select multiple values: No

Measurement unit: Category

Allowed values:

- Drones
- Ground-level photos and videos
- On-farm visit
- Plot-based sampling
- Producer records or attestation
- Satellite monitoring or remote sensing
- Soil metagenomics
- Soil sensors
- Water sensors
- Other (specify)

Logic: None – all respond

Required: Yes

Data collection level: Project

Data collection frequency: Quarterly

GHG reporting method

Data element name: GHG reporting 1-5

Reporting question: How did the project track and report implementation of practices to reduce GHG emissions?

Description: Up to the five most common forms of tracking and reporting on practice implementation used this year as part of MMRV requirements. Reporting is defined as documenting and sharing monitoring and measurement results with project partners, the recipient, and any third-party verification organization. Include up to 5 methods, based on which methods are most commonly used for this project. The worksheet provides five columns with a drop-down list of the allowed values. Choose one value for each column. If fewer than 5 GHG reporting methods are used, leave unnecessary columns blank. If "other" is chosen, use the additional column to enter other GHG reporting methods as free text.

Data type: List

Select multiple values: No

Measurement unit: Category

Allowed values:

- Automated devices
- Email
- Mobile app
- Paper
- Third-party actors
- Website
- Other (specify)

Logic: None – all respond

Required: Yes

Data collection level: Project

Data collection frequency: Quarterly

GHG verification method

Data element name: GHG verification method 1-5

Reporting question: How did the project verify implementation of practices to reduce GHG emissions?

Description: Up to the five most common forms of verifying practice implementation used this year as part of MMRV requirements. Verification is defined as independent confirmation that measurement, monitoring and reporting information are complete, accurate and reliable. Include up to 5 methods, based on which methods are most commonly used for this project. The worksheet provides five columns with a drop-down list of the allowed values. Choose one value for each column. If fewer than 5 GHG verification methods are used, leave unnecessary columns blank. If "other" is chosen, use the additional column to enter other GHG verification methods as free text.

Data type: List

Select multiple values: No

Measurement unit: Category

Allowed values:

- Artificial intelligence
- Audit by recipient
- Computer modeling
- Photos
- Record audit
- Satellite imagery
- Site or field visit
- Third-party audit
- Other (specify)

Logic: None – all respond

Required: Yes

Data collection level: Project

Data collection frequency: Quarterly

Partner Activities

Unique IDs	
Partner ID	Unique Project ID for each partner

Partner name	
Data element name: Name of partner organization	**Reporting question:** What is the official name of the recipient or partner organization?
Description: Legal name of recipient or partner organization	
Data type: Text	**Select multiple values**: NA
Measurement unit: NA	**Allowed values:** Text
Logic: None – all respond	**Required:** Yes
Data collection level: Partner	**Data collection frequency:** Partnership initiation

Partner type	
Data element name: Type of partner organization	**Reporting question:** What type of organization is this?
Description: Legal/financial structure of recipient or partner organization	
Data type: List	**Select multiple values**: No
Measurement unit: Category	**Allowed values:** • Commodity groups (501c5) • For-profit • Individual • Nonprofit • State or local agency • Tribal agency • University
Logic: None – all respond	**Required:** Yes
Data collection level: Partner	**Data collection frequency:** Partnership initiation

Partner POC	
Data element name: Partner POC	**Reporting question:** Who is the point of contact for this project at the recipient or partner organization?
Description: Name of a point of contact for the recipient or partner organization	
Data type: Text	**Select multiple values**: NA
Measurement unit: NA	**Allowed values:** Text
Logic: None – all respond	**Required:** Yes
Data collection level: Partner	**Data collection frequency:** Partnership initiation; update as necessary

Partner POC email	
Data element name: Partner POC email	**Reporting question:** What is the point of contact's email address?
Description: Email of the point of contact for the recipient or partner organization	
Data type: Text	**Select multiple values**: NA
Measurement unit: NA	**Allowed values:** Text
Logic: None – all respond	**Required:** Yes
Data collection level: Partner	**Data collection frequency:** Partnership initiation; update as necessary

Partnership start date

Data element name: Partnership start date | **Reporting question:** When did the partnership start?

Description: Date that the partner organization and the recipient began formally partnering on the project

Data type: Date | **Select multiple values**: NA

Measurement unit: MM/DD/YYYY | **Allowed values:** 01/01/2023 – 12/31/2030

Logic: No response for recipient | **Required:** Yes

Data collection level: Partner | **Data collection frequency:** Partnership initiation

Partnership end date

Data element name: Partnership end date | **Reporting question:** When did the partnership end?

Description: Date that the partner organization and the recipient stopped formally partnering on the project

Data type: Date | **Select multiple values**: NA

Measurement unit: MM/DD/YYYY | **Allowed values:** 01/01/2023 – 12/31/2030

Logic: No response for recipient | **Required:** Yes

Data collection level: Partner | **Data collection frequency:** Partnership end quarter

New partnership

Data element name: New partnership | **Reporting question:** Is this a new partnership?

Description: A new partnership means that the recipient and the partner organization have not had a formal working relationship (under contract or on a grant) prior to the start of the project.

Data type: List | **Select multiple values**: No

Measurement unit: Category | **Allowed values:**

- Yes
- No
- I don't know

Logic: No response for recipient | **Required:** Yes

Data collection level: Partner | **Data collection frequency:** Partnership initiation

Partner total requested

Data element name: Partner total requested | **Reporting question:** What is the total amount of funding the partner has requested to date from this project?

Description: Cumulative (total) amount of funds that the partner has requested reimbursement for from the recipient from the start of the partnership to the end of the reporting quarter. For each quarter's data entry, the value must be the sum of all previous entries plus the amount of funds requested in the reporting quarter. If there are no changes, report the value from the previous quarter.

Data type: Decimal | **Select multiple values**: NA

Measurement unit: Dollars | **Allowed values:** $0-$100,000,000

Logic: No response for recipient | **Required:** Yes

Data collection level: Partner | **Data collection frequency:** Quarterly

Total match contribution

Data element name: Total match contribution

Reporting question: What is the total match value the organization has contributed to the project to date?

Description: Cumulative (total) value of funds and in-kind contributions (e.g., staff time, inputs, equipment rental, marketing support) that the partner has provided as a project match contribution from the start of the partnership to the end of the reporting quarter. For each quarter's data entry, the value must be the sum of all previous entries plus match contributions in the reporting quarter. If there are no changes, report the value from the previous quarter.

Data type: Decimal

Select multiple values: NA

Measurement unit: Dollars

Allowed values: $0-$100,000,000

Logic: None – all respond

Required: Yes

Data collection level: Partner

Data collection frequency: Quarterly

Total match incentives

Data element name: Total match incentives

Reporting question: What is the total value of match provided by this organization for producer incentives?

Description: Cumulative (total) value of funds for incentive payments directly to producers that the partner has provided as a project match contribution from the start of the partnership to the end of the reporting quarter. For each quarter's data entry, the value must be the sum of all previous entries plus match incentives in the reporting quarter. If there are no changes, report the value from the previous quarter.

Data type: Decimal

Select multiple values: NA

Measurement unit: Dollars

Allowed values: $0-$100,000,000

Logic: None – all respond

Required: Yes

Data collection level: Partner

Data collection frequency: Quarterly

Match type

Data element name: Match type 1-3

Reporting question: What types of match contributions has the organization provided to the project?

Description: Types of match contributions *other than incentives* provided directly to producers by the organization from the start of the partnership to the end of the reporting quarter. Enter up to the top three (in dollar value) types of match contributions provided. In-kind staff time could be used for technical assistance, marketing assistance, or other support to producers. Production inputs include seed, fertilizer, pesticides, equipment and other inputs for use in the field. The worksheet provides three columns with a drop-down list of the allowed values. Choose one value for each column. If fewer than 3 match types are used, leave unnecessary columns blank. If "other" is chosen, use the additional column to enter other match types as free text.

Data type: List

Select multiple values: No

Measurement unit: Category

Allowed values:

- Equipment rental or use
- In-kind staff time
- Production inputs (reduced cost or free)
- Program income
- Software
- Other (specify)

Logic: None – all respond

Required: Yes

Data collection level: Partner

Data collection frequency: Quarterly

Match amount

Data element name: Match amount 1-3

Reporting question: What is the value of the match contributions the organization provided to the project?

Description: Cumulative (total) value of funds for each match type that the organization has provided as a project match contribution from the start of the partnership to the end of the reporting quarter. Enter amounts for up to the top three (in dollar value) match types. The worksheet provides three columns for this data element. Enter one value for each column. If fewer than 3 match types are used, leave unnecessary columns blank.

Data type: Decimal

Select multiple values: NA

Measurement unit: Dollars

Allowed values: $0-$100,000,000

Logic: None – all respond

Required: Yes

Data collection level: Partner

Data collection frequency: Quarterly

Training type provided

Data element name: Training type 1-3 provided

Reporting question: What types of training has the organization provided to project partners?

Description: Types of training provided to the project partner as a result of participating in the project during the past quarter. Training can come from the recipient, a project partner organization (including other divisions of their own organization, or an outside organization. Enter up to the top three (in dollar value) types of partner training provided. The worksheet provides three columns with a drop-down list of the allowed values. Choose one value for each column. If fewer than 3 training types are used, leave unnecessary columns blank. If "other" is chosen, use the additional column to enter other training types as free text.

Data type: List

Select multiple values: No

Measurement unit: Category

Allowed values:

- Data collection
- Grant reporting
- Marketing opportunities
- Providing financial assistance
- Providing technical assistance
- Writing producer contracts
- Other (specify)

Logic: None – all respond

Required: Yes

Data collection level: Partner

Data collection frequency: Quarterly

Activity by partner

Data element name: Activity 1-3 by partner

Reporting question: What types of activities has the organization provided to the project?

Description: Types of activities that the recipient or partner organization has provided during the reporting quarter. Enter up to the top three (in dollar value) types of activities undertaken. The worksheet provides three columns with a drop-down list of the allowed values. Choose one value for each column. If fewer than 3 activity types are used, leave unnecessary columns blank. If "other" is chosen, use the additional column to enter other activity types as free text.

Data type: List

Select multiple values: No

Measurement unit: Category

Allowed values:

- Marketing support
- MMRV support
- Producer outreach for enrollment
- Technical assistance to producers
- Training to other partner organizations
- Other (specify)

Logic: None – all respond

Required: Yes

Data collection level: Partner

Data collection frequency: Quarterly

Activity cost

Data element name: Activity cost 1-3	**Reporting question:** What is the value of the activities this organization has provided to the project?
Description: Cumulative (total) cost of each activity type that the organization has undertaken or offered from the start of the partnership to the end of the reporting quarter. Enter amounts for up to the top three (in dollar value) activity types. The worksheet provides three columns for this data element. Enter one value for each column. If fewer than 3 activity types are provided, leave unnecessary columns blank.	
Data type: Decimal	**Select multiple values**: NA
Measurement unit: Dollars	**Allowed values:** $0-$100,000,000
Logic: None – all respond	**Required:** Yes
Data collection level: Partner	**Data collection frequency:** Quarterly

Products supplied

Data element name: Products supplied	**Reporting question:** What products or supplies were provided to enrolled fields?
Description: Name(s) of products supplied to enrolled producers as incentives or matching contributions. Enter the name of each product, including its brand. Separate each product name with a comma. If no products or supplies were provided by the organization, leave the column blank.	
Data type: Text	**Select multiple values**: NA
Measurement unit: Name	**Allowed values:** Text
Logic: None – all respond	**Required:** Yes
Data collection level: Partner	**Data collection frequency:** Quarterly

Product source

Data element name: Product source	**Reporting question:** Which companies provided the supplies?
Description: Name of firm or company from which supplies were obtained.	
Data type: Text	**Select multiple values**: NA
Measurement unit: Name	**Allowed values:** Text
Logic: Respond if text entered for 'Products supplied'	**Required:** Yes
Data collection level: Partner	**Data collection frequency:** Quarterly

Marketing Activities

Commodity type	
Data element name: Commodity type	**Reporting question:** What type of commodity is produced by the farmers enrolled in this project?
Description: List a single commodity produced or marketed through incentives from this project. If multiple commodities are produced by the project, use additional rows of the worksheet to report each commodity. Use the FSA commodity list in Appendix B and choose the commodity from the list.	
Data type: List	**Select multiple values**: No
Measurement unit: Category	**Allowed values:** FSA commodity list
Logic: None – all respond	**Required:** Yes
Data collection level: Project	**Data collection frequency:** Quarterly

Marketing channel type	
Data element name: Marketing channel type	**Reporting question:** What type of marketing channel is used to sell this commodity?
Description: List a single type of marketing channel used to sell the commodity produced by farmers enrolled in the project. If a single commodity is marketed through multiple channels, use additional rows of the worksheet to report each combination of commodity and marketing channel. If "other" is chosen, use the additional column to enter the other marketing channel type(s) as free text.	
Data type: List	**Select multiple values**: No
Measurement unit: Category	**Allowed values:** • Agricultural marketing board • Biorefinery • Commodity broker • Direct to consumer • Direct to institution • Direct to restaurant • Distributor (including grain elevators) • Food hub or cooperative • Food processor • Non-food byproducts processor • Retailer • USDA • Other (specify)
Logic: None – all respond	**Required:** Yes
Data collection level: Project	**Data collection frequency:** Quarterly

Number of buyers	
Data element name: Number of buyers	**Reporting question:** How many buyers are there in this marketing channel?
Description: List the number of individual firms or buyers in this marketing channel.	
Data type: Integer	**Select multiple values**: No
Measurement unit: Count	**Allowed values:** 1-500
Logic: None – all respond	**Required:** Yes
Data collection level: Project	**Data collection frequency:** Quarterly

Names of buyers

Data element name: Names of buyers	**Reporting question:** What are the names of all of the buyers in this marketing channel?
Description: Provide the names of all buyers in this marketing channel. Separate each name with a comma.	
Data type: Text	**Select multiple values**: NA
Measurement unit: Name	**Allowed values:** Text
Logic: None – all respond	**Required:** Yes
Data collection level: Project	**Data collection frequency:** Quarterly

Marketing channel geography

Data element name: Marketing channel geography	**Reporting question:** What is the primary geography of the marketing channel?
Description: The primary geography of the type of marketing channel. Primary geography means the scale at which most of the activity of buying and selling happens. Local means within a single state or directly neighboring states. Regional means within a five-to-ten state area. National means across the United States. International means specific locations outside of the United States. Global means across the world or not to a specific international location.	
Data type: List	**Select multiple values**: No
Measurement unit: Category	**Allowed values:** • Local • Regional • National • Global
Logic: None – all respond	**Required:** Yes
Data collection level: Project	**Data collection frequency:** Quarterly

Value sold

Data element name: Value sold	**Reporting question:** What is the value of the commodity sold in this marketing channel?
Description: The dollar value of the commodity sold in this marketing channel this quarter (non-cumulative).	
Data type: Decimal	**Select multiple values**: No
Measurement unit: Dollars	**Allowed values:** $1-$100,000,000
Logic: None – all respond	**Required:** Yes
Data collection level: Project	**Data collection frequency:** Quarterly

Volume sold

Data element name: Volume sold	**Reporting question:** What is the volume of the commodity sold in this marketing channel?
Description: The volume of the commodity sold in this marketing channel this quarter (non-cumulative).	
Data type: Decimal	**Select multiple values**: No
Measurement unit: Number	**Allowed values:** 1-100,000,000
Logic: None – all respond	**Required:** Yes
Data collection level: Project	**Data collection frequency:** Quarterly

Volume sold unit

Data element name: Volume sold unit

Reporting question: What is the unit of volume?

Description: The unit associated with the volume of the commodity sold in the marketing channel. If "other" is chosen, use the additional column to enter the appropriate unit as free text.

Data type: List

Select multiple values: No

Measurement unit: Category

Allowed values:

- Bales (500 pounds)
- Bushels
- Carcass pounds
- Gallons
- Kilograms
- Linear board feet
- Liveweight pounds
- Metric tons
- Pounds
- Short tons
- Other (specify)

Logic: None – all respond

Required: Yes

Data collection level: Project

Data collection frequency: Quarterly

Price premium

Data element name: Price premium

Reporting question: What price premium is received for the commodity sold in this marketing channel?

Description: The price premium received for the commodity sold in this marketing channel this quarter. Price premium is the amount received above a 'business as usual' price.

Data type: Decimal

Select multiple values: No

Measurement unit: Dollars

Allowed values: $0.01-$10,000

Logic: None – all respond

Required: Yes

Data collection level: Project

Data collection frequency: Quarterly

Price premium unit

Data element name: Price premium unit

Reporting question: What is the unit for the price premium?

Description: The unit associated with the price premium for the commodity sold in the marketing channel. If "other" is chosen, use the additional column to enter the appropriate unit as free text.

Data type: List

Select multiple values: No

Measurement unit: Category

Allowed values:

- Per bale (500 pounds)
- Per bushel
- Per carcass pound
- Per gallon
- Per kilogram
- Per linear board foot
- Per live pound
- Per metric ton
- Per ounce
- Per short ton
- Other (specify)

Logic: None – all respond

Required: Yes

Data collection level: Project

Data collection frequency: Quarterly

Price premium to producer

Data element name: Price premium to producer

Reporting question: What percent of the price premium is provided to the producer for the commodity sold in this marketing channel?

Description: The percent of the price premium provided to the producer for the commodity sold in this marketing channel this quarter. Price premium is the amount received above a 'business as usual' price.

Data type: Decimal

Select multiple values: No

Measurement unit: Percent

Allowed values: 0-100

Logic: None – all respond

Required: Yes

Data collection level: Project

Data collection frequency: Quarterly

Product differentiation method

Data element name: Product differentiation method 1-3

Reporting question: What methods are used to differentiate climate-smart commodities in this marketing channel?

Description: Provide the methods used to differentiate the climate-smart commodity in this market channel. Product differentiation methods are ways to distinguish or differentiate the climate-smart commodity in the marketplace. Include up to 3 methods, based on which methods are most commonly used for this project. The worksheet provides three columns with a drop-down list of the allowed values. Choose one value for each column. If fewer than 3 product differentiation methods are used, leave unnecessary columns blank. If "other" is chosen, use the additional column to enter other product differentiation methods as free text.

Data type: List

Select multiple values: No

Measurement unit: Category

Allowed values:

- Certification/verification for internal insetting
- Farm certification
- Label or badge used on packaging or marketing
- Third party certification/verification
- Trademark
- Other (specify)

Logic: None – all respond

Required: Yes

Data collection level: Project

Data collection frequency: Quarterly

Marketing method

Data element name: Marketing method 1-3

Reporting question: What methods are used to market climate-smart commodities in this marketing channel?

Description: Provide the method(s) used to market this commodity in this market channel. Marketing method is the way that potential buyers of the climate-smart commodity are engaged by the project partners as the sellers or facilitators of sale. Include up to 3 methods, based on which methods are most commonly used for this project. The worksheet provides three columns with a drop-down list of the allowed values. Choose one value for each column. If fewer than 3 marketing methods are used, leave unnecessary columns blank. If "other" is chosen, use the additional column to enter other marketing methods as free text

Data type: List

Select multiple values: No

Measurement unit: Category

Allowed values:

- Label or badge used on packaging or marketing materials
- Marketing partnership (e.g., promotion by buyer)
- Print marketing campaign
- Social media and digital marketing campaign
- Verbal marketing campaign (e.g., radio, word of mouth)
- Other (specify)

Logic: None – all respond

Required: Yes

Data collection level: Project

Data collection frequency: Quarterly

Marketing channel identification method

Data element name: Marketing channel identification method 1-3

Reporting question: What methods are used to generate interest in climate-smart commodities in this marketing channel?

Description: Provide the marketing channel identification method(s) used for this commodity in this market channel. Market channel identification methods are the ways that producers and project partners generate interest in purchasing the climate-smart commodity. Include up to 3 methods, based on which methods are most commonly used for this project. The worksheet provides three columns with a drop-down list of the allowed values. Choose one value for each column. If fewer than 3 marketing channel identification methods are used, leave unnecessary columns blank. If "other" is chosen, use the additional column to enter other marketing channel identification methods as free text

Data type: List

Select multiple values: No

Measurement unit: Category

Allowed values:

- Educational tours for buyers
- In-person lead generation
- Negotiated contracts with buyers
- Partnership network or project partner
- Other (specify)

Logic: None – all respond

Required: Yes

Data collection level: Project

Data collection frequency: Quarterly

Traceability method

Data element name: Traceability method 1-3

Reporting question: What traceability methods are used for climate-smart commodities in this channel?

Description: Provide the traceability method(s) used for the climate-smart commodity in this market channel. Traceability methods are ways to trace the climate-smart commodity or the climate-smart claims through the supply chain. Include up to 3 methods, based on which methods are most commonly used for this project. The worksheet provides three columns with a drop-down list of the allowed values. Choose one value for each column. If fewer than 3 traceability methods are used, leave unnecessary columns blank. If "other" is chosen, use the additional column to enter other traceability methods as free text.

Data type: List

Select multiple values: No

Measurement unit: Category

Allowed values:

- Barcode or unique ID
- Blockchain
- Book and claim
- Chain of custody
- Mass balance
- Recordkeeping
- Registry with certification
- Segregation
- Supply shed
- Volume proxy
- Other (specify)

Logic: None – all respond

Required: Yes

Data collection level: Project

Data collection frequency: Quarterly

Producer Enrollment

Unique IDs	
Farm ID	Unique Farm ID assigned by FSA
State or territory	State name (must match FSA farm enrollment data)
County of residence	County name (must match FSA farm enrollment data)

Producer data change

Data element name: Producer data change

Reporting question: Is there new/updated information for a producer who is re-enrolling in the project?

Description: Indicates that there is new or updated information for a producer who had previously enrolled in the project and is re-enrolling.

Data type: List

Select multiple values: No

Measurement unit: Category

Allowed values:

- Yes
- No

Logic: None – all respond

Required: Yes

Data collection level: Producer

Data collection frequency: Re-enrollment

Producer start date

Data element name: Producer start date

Reporting question: When did the producer enroll in the project?

Description: Date that the producer enrolled in the project by signing their first contract.

Data type: Date

Select multiple values: NA

Measurement unit: MM/DD/YYYY

Allowed values: 01/01/2023 – 12/31/2030

Logic: None – all respond

Required: Yes

Data collection level: Producer

Data collection frequency: Initial enrollment

Producer name

Data element name: Producer name

Reporting question: What is the name of producer enrolled in the project?

Description: Name of the producer enrolled in the project; the name must match the name contained in the customer's Business Partner record and the Farm Operating Plan in FSA Business File for that Farm ID.

Data type: Text

Select multiple values: NA

Measurement unit: NA

Allowed values: Text

Logic: None – all respond

Required: Yes

Data collection level: Producer

Data collection frequency: Initial enrollment

Underserved status

Data element name: Underserved status

Reporting question: Is this producer considered an underserved and/or a small producer?

Description: Underserved status of the primary operator of the enrolled operation. Underserved producers generally include beginning farmers, socially disadvantaged farmers, veteran farmers, and limited resource farmers; women farmers and producers growing specialty crops are generally also included in these categories. Small farms are generally those with less than $350,000 in annual gross cash farm income. Indicate whether this producer is considered underserved, a small producer, or both underserved and a small producer. Use "I don't know" if the producer declines to answer. Departmental Regulation 4370-001 provides USDA's policies for collecting demographic data, including race, ethnicity and gender. Providing demographic information is voluntary and at the discretion of the customer. Demographic information is used by USDA for statistical purposes only and will not be used to determine an applicant's eligibility for programs or services for which they apply.

Data type: List

Select multiple values: No

Measurement unit: Category

Allowed values:

- Yes, underserved
- Yes, small producer
- Yes, underserved and small producer
- No
- I don't know

Logic: None – all respond

Required: No

Data collection level: Producer

Data collection frequency: Initial enrollment

Total area

Data element name: Total area

Reporting question: What is the total area of the farm?

Description: Total area of the farm associated with the Farm ID. Report total area of the farm, even if only a portion of the farm is enrolled in the project. If a producer is enrolled in the project for multiple years, review the total area each time a new contract is signed and provide any necessary updates.

Data type: List

Select multiple values: No

Measurement unit: Category

Allowed values:

- Less than 1 acre
- 1 to 9 acres
- 10 to 49 acres
- 50 to 69 acres
- 70 to 99 acres
- 100 to 139 acres
- 140 to 179 acres
- 180 to 219 acres
- 220 to 259 acres
- 260 to 499 acres
- 500 to 999 acres
- 1,000 to 1,999 acres
- 2,000 to 4,999 acres
- 5,000 or more acres

Logic: None – all respond

Required: Yes

Data collection level: Producer

Data collection frequency: Initial enrollment and subsequent enrollment(s), if applicable

Total crop area

Data element name: Total crop area	**Reporting question:** What percent of the current operation is cropland?
Description: Area of the total farm that is currently used as cropland. If a producer is enrolled in the project for multiple years, review the total crop area each time a new contract is signed and provide any necessary updates.	
Data type: Integer	**Select multiple values:** No
Measurement unit: Acres	**Allowed values:** 0-100,000
Logic: None – all respond	**Required:** Yes
Data collection level: Producer	**Data collection frequency:** Initial enrollment and subsequent enrollment(s), if applicable

Total livestock area

Data element name: Total livestock area	**Reporting question:** What amount of the current operation is used for livestock (by area)?
Description: Area of the total farm that is currently used for pasture, grazing, rangeland; or animal housing, feeding or milking. If a producer is enrolled in the project for multiple years, review the total livestock area each time a new contract is signed and provide any necessary updates.	
Data type: Integer	**Select multiple values:** No
Measurement unit: Acres	**Allowed values:** 0-100,000
Logic: None – all respond	**Required:** Yes
Data collection level: Producer	**Data collection frequency:** Initial enrollment and subsequent enrollment(s), if applicable

Total forest area

Data element name: Total forest area	**Reporting question:** What amount of the current operation is forested (by area)?
Description: Area of the total farm that is currently considered forest land use. Forest land use means that at least 10% of the land area is covered in trees that will be at least 13 feet tall when mature. If a producer is enrolled in the project for multiple years, review the total forest area each time a new contract is signed and provide any necessary updates.	
Data type: Integer	**Select multiple values:** No
Measurement unit: Acres	**Allowed values:** 0-100,000
Logic: None – all respond	**Required:** Yes
Data collection level: Producer	**Data collection frequency:** Initial enrollment and subsequent enrollment(s), if applicable

Livestock type

Data element name: Livestock type 1-3

Reporting question: What types of livestock are raised on the farm?

Description: Up to top three types of livestock (by head count) on the farm. The worksheet provides three columns with a drop-down list of the allowed values. Choose one value for each column. If there are fewer than 3 livestock types, leave unnecessary columns blank. If "other" is chosen, use the additional column to enter other livestock types as free text. If a producer is enrolled in the project for multiple years, review the livestock type each time a new contract is signed and provide any necessary updates.

Data type: List

Select multiple values: No

Measurement unit: Category

Allowed values:

- Alpacas
- Beef cows
- Beefalo
- Buffalo or bison
- Chickens (broilers)
- Chickens (layers)
- Dairy cows
- Deer
- Ducks
- Elk
- Emus
- Equine
- Geese
- Goats
- Honeybees
- Llamas
- Reindeer
- Sheep
- Swine
- Turkeys
- Other (specify)

Logic: Respond if 'Total livestock area' >0

Required: Yes

Data collection level: Producer

Data collection frequency: Initial enrollment and subsequent enrollment(s), if applicable

Livestock head

Data element name: Livestock head 1-3

Reporting question: How many livestock (by type) are on this operation?

Description: Average annual head count for each type of livestock. Enter amounts for up to the top three livestock types by number. The worksheet provides three columns for this data element. Enter one value for each column. If there are fewer than 3 livestock types, leave unnecessary columns blank. If a producer is enrolled in the project for multiple years, review the average annual head count each time a new contract is signed and provide any necessary updates.

Data type: Integer

Select multiple values: NA

Measurement unit: Head count

Allowed values: 1-10,000,000

Logic: Respond if 'Total livestock area' >0

Required: Yes

Data collection level: Producer

Data collection frequency: Initial enrollment and subsequent enrollment(s), if applicable

Organic farm

Data element name: Organic farm

Reporting question: Is any part of the farm currently USDA-certified organic or transitioning to USDA-certified organic?

Description: USDA-certified organic means that the farm has been certified by an accredited organic certifying agent or is transitioning to USDA-certified organic by not using any of the prohibited substances. Yes means that some or all of the farm is certified organic or transitioning to certified organic. No means that no part of the farm is certified organic or transitioning to certified organic. If a producer is enrolled in the project for multiple years, review the organic certification status of the farm each time a new contract is signed and provide any necessary updates.

Data type: List

Select multiple values: No

Measurement unit: Category

Allowed values:

- Yes
- No
- I don't know

Logic: None – all respond

Required: No

Data collection level: Producer

Data collection frequency: Initial enrollment and subsequent enrollment(s), if applicable

Organic fields

Data element name: Organic fields

Reporting question: Are any of the fields enrolled in the project currently USDA-certified organic or transitioning to USDA-certified organic?

Description: USDA-certified organic means that the operation has been certified by an accredited organic certifying agent or is transitioning to USDA-certified organic by not using any of the prohibited substances. Yes means that some or all of the fields enrolled in the project are certified organic or transitioning to certified organic. No means that no part of the fields enrolled in the project are certified organic or transitioning to certified organic. If a producer is enrolled in the project for multiple years, review the organic certification status of the enrolled fields each time a new contract is signed and provide any necessary updates.

Data type: List

Select multiple values: No

Measurement unit: Category

Allowed values:

- Yes
- No
- I don't know

Logic: Respond if yes to 'Organic operation'

Required: No

Data collection level: Producer

Data collection frequency: Initial enrollment and subsequent enrollment(s), if applicable

Producer motivation

Data element name: Producer motivation

Reporting question: Which of the following was the primary reason the producer enrolled in this project?

Description: Primary operator's motivation for enrolling in the project.

Data type: List

Select multiple values: No

Measurement unit: Category

Allowed values:

- Financial benefit
- Environmental benefit
- New market opportunity
- Partnerships or networks
- Other

Logic: None – all respond

Required: Yes

Data collection level: Producer

Data collection frequency: Initial enrollment

Producer outreach

Data element name: Producer outreach 1-3

Reporting question: What types of outreach were provided to producers?

Description: Up to three most common types of outreach provided to producer prior to enrollment. Outreach activities are those focused on identifying and enrolling producers in the project. Outreach can come from the recipient or project partners. The worksheet provides three columns with a drop-down list of the allowed values. Choose one value for each column. If there are fewer than 3 outreach types, leave unnecessary columns blank. If "other" is chosen, use the additional column to enter other outreach types as free text.

Data type: List

Select multiple values: Yes

Measurement unit: Category

Allowed values:

- Commodity organizations
- Conferences
- Cooperative extension
- Digital communications and resources
- Education workshops, field days, and town halls
- Existing partner networks
- Farm visits and one-on-one meetings
- General advertising
- Peer referrals and producer groups
- Phone calls
- Print communications and resources
- Retailers
- State agencies
- Targeted messaging using proprietary data
- Technical service providers
- Other (specify)

Logic: None – all respond

Required: Yes

Data collection level: Producer

Data collection frequency: Initial enrollment

CSAF experience

Data element name: CSAF experience

Reporting question: Has the primary operator implemented CSAF practices in the last ten years anywhere on the farm?

Description: Has this farm implemented climate-smart agriculture or forestry (CSAF) practices anywhere on the farm in the past 10 years or since the current primary operator took control (whichever time period is shorter)? CSAF practices are included in a list in Appendix A.

Data type: List

Select multiple values: No

Measurement unit: Category

Allowed values:

- Yes
- No
- I don't know

Logic: None – all respond

Required: Yes

Data collection level: Producer

Data collection frequency: Initial enrollment

CSAF federal funds

Data element name: CSAF federal funds

Reporting question: Were prior CSAF practices supported by federal funds?

Description: If this farm (under the primary operator) has implemented CSAF practices in the last ten years, was implementation supported by federal funds? Federal funds are defined as being from programs including, but not limited to, those from the Natural Resources Conservation Service ((NRCS), including through Environmental Quality Incentives Program (EQIP), Conservation Stewardship Program (CSP), Regional Conservation Partnership Program (RCPP), or related programs), the Farm Service Agency Conservation Reserve Program (CRP), as well as funds from other USDA programs or other federal agencies.

Data type: List

Select multiple values: No

Measurement unit: Category

Allowed values:

- Yes
- No
- I don't know

Logic: Respond if yes to 'CSAF experience'

Required: Yes

Data collection level: Producer

Data collection frequency: Initial enrollment

CSAF state or local funds

Data element name: CSAF state or local funds

Reporting question: Were prior CSAF practices supported by state or local funds?

Description: If this farm (under the primary operator) has implemented CSAF practices in the last ten years, was implementation supported by state funds? State or local funds are those from state departments of agriculture or other state agencies, local water quality districts and other local agencies.

Data type: List

Select multiple values: No

Measurement unit: Category

Allowed values:

- Yes
- No
- I don't know

Logic: Respond if yes to 'CSAF experience'

Required: Yes

Data collection level: Producer

Data collection frequency: Initial enrollment

CSAF nonprofit funds

Data element name: CSAF nonprofit funds

Reporting question: Were CSAF practices supported by nonprofit funds?

Description: If this farm (under the primary operator) has implemented CSAF practices in the last ten years, was implementation supported by nonprofit funds? Nonprofit funds are those offered directly from a nonprofit organization to a producer.

Data type: List

Select multiple values: No

Measurement unit: Category

Allowed values:

- Yes
- No
- I don't know

Logic: Respond if yes to 'CSAF experience'

Required: Yes

Data collection level: Producer

Data collection frequency: Initial enrollment

CSAF market incentives

Data element name: CSAF market incentives	**Reporting question:** Were CSAF practices supported by market incentives?
Description: If this farm (under the primary operator) has implemented CSAF practices in the last ten years, was implementation supported by market incentives? Market incentives include premiums paid by a commodity buyer or by a consumer based on branding or labeling as a climate-smart commodity.	
Data type: List	**Select multiple values:** No
Measurement unit: Category	**Allowed values:** • Yes • No • I don't know
Logic: Respond if yes to 'CSAF experience'	**Required:** Yes
Data collection level: Producer	**Data collection frequency:** Initial enrollment

Field Enrollment

Unique IDs

Farm ID	Unique Farm ID assigned by FSA
Tract ID	Unique Tract ID assigned by FSA
Field ID	Unique Field ID assigned by FSA
State or territory of field	State name (must match FSA farm enrollment data)
County of field	County name (must match FSA farm enrollment data)
Prior Field ID, if applicable	Prior Field ID assigned by FSA if there has been reconstitution of the farm resulting in a new Field ID during the field's enrollment in the project

Field data change

Data element name: Field data change

Reporting question: Has the information previously reported for this field changed?

Description: Indicator that this entry is being used to report any relevant changes, such as a new Field ID number or changes to the commodity or practice combinations, for a field that has previously been enrolled in the project.

Data type: List

Select multiple values: No

Measurement unit: Category

Allowed values:

- Yes
- No

Logic: None – all respond

Required: Yes

Data collection level: Field

Data collection frequency: Re-enrollment

Contract start date

Data element name: Contract start date

Reporting question: What is the start date of the contract with the producer that includes this field?

Description: Start date listed on the contract that enrolls the field in the project.

Data type: Date

Select multiple values: NA

Measurement unit: MM/DD/YYYY

Allowed values: 01/01/2023 – 12/31/2030

Logic: None – all respond

Required: Yes

Data collection level: Field

Data collection frequency: Initial enrollment

Total field area

Data element name: Total field area

Reporting question: What is the total size of the enrolled field?

Description: Total size of the field enrolled with the project.

Data type: Decimal

Select multiple values: No

Measurement unit: Acres

Allowed values: .01-500

Logic: None – all respond

Required: Yes

Data collection level: Field

Data collection frequency: Initial enrollment

Commodity category

Data element name: Commodity category

Reporting question: What category of commodity(ies) is (are) produced from this field?

Description: Category of commodity(ies) produced in field enrolled in the project

Data type: List

Select multiple values: No

Measurement unit: Category

Allowed values:

- Crops
- Livestock
- Trees
- Crops and livestock
- Crops and trees
- Livestock and trees
- Crops, livestock and trees

Logic: None – all respond

Required: Yes

Data collection level: Field

Data collection frequency: Initial enrollment

Commodity type

Data element name: Commodity type

Reporting question: What type of commodity is produced from this field?

Description: Type of commodity produced in field enrolled in the project. See full list in Appendix B. The worksheet provides a drop-down list of the allowed values. Choose the appropriate value. Enter additional commodities in subsequent rows.

Data type: List

Select multiple values: No

Measurement unit: Category

Allowed values: FSA commodity list

Logic: None – all respond

Required: Yes

Data collection level: Field

Data collection frequency: Initial enrollment

Baseline yield

Data element name: Baseline yield

Reporting question: What is the baseline yield of this field?

Description: Average annual yield of commodity in 3 years prior to enrollment. Provide yield for the enrolled field if possible. If not at field level, provide average annual yield for the specific commodity for the operation.

Data type: Decimal

Select multiple values: No

Measurement unit: Production per acre or animal

Allowed values: .01-100,000

Logic: None – all respond

Required: Yes

Data collection level: Field

Data collection frequency: Initial enrollment

Baseline yield unit

Data element name: Baseline yield unit

Reporting question: Baseline yield unit

Description: Unit of average annual yield of commodity in enrolled field in 3 years prior to enrollment. The worksheet provides a drop-down list of choices for this data element. If "other" is chosen, use the additional column to enter the appropriate yield unit as free text.

Data type: List

Select multiple values: No

Measurement unit: Category

Allowed values:

- Animal units per acre
- Bushels per acre
- Carcass pounds per animal
- Head per acre
- Hundred-weights (or pounds) per head
- Linear feet per acre
- Liveweight pounds per animal
- Pounds per acre
- Tons per acre
- Other (specify)

Logic: None – all respond

Required: Yes

Data collection level: Field

Data collection frequency: Initial enrollment

Baseline yield location

Data element name: Baseline yield location

Reporting question: For what portion of the operation is the baseline yield being reported?

Description: Location of the reported average annual yield of commodity in 3 years prior to enrollment. If "other" is chosen, use the additional column to enter the appropriate location as free text.

Data type: List

Select multiple values: No

Measurement unit: Category

Allowed values:

- Enrolled field
- Whole operation
- Other (specify)

Logic: None – all respond

Required: Yes

Data collection level: Field

Data collection frequency: Initial enrollment

Field land use

Data element name: Field land use

Reporting question: What is this field's land use history?

Description: Prior to enrollment, what was the most common land use for this field in the past 3 years?

Data type: List

Select multiple values: No

Measurement unit: Category

Allowed values:

- Crop land
- Forest land
- Non-agriculture
- Other agricultural land
- Pasture
- Range

Logic: None – all respond

Required: Yes

Data collection level: Field

Data collection frequency: Initial enrollment

Field irrigated

Data element name: Field irrigated	**Reporting question:** What is this field's irrigation history?
Description: Prior to enrollment, what was the most common irrigation practice on this field the past 3 years?	
Data type: List	**Select multiple values:** No
Measurement unit: Category	**Allowed values:** • No irrigation • Center pivot • Drip-subsurface • Drip-surface • Flood/border • Furrow/ditch • Lateral/linear sprinklers • Micro-sprinklers • Seepage • Side roll • Solid set sprinklers • Supplemental • Surface • Traveling gun/towline • Wheel Line • Other
Logic: None – all respond	**Required:** Yes
Data collection level: Field	**Data collection frequency:** Initial enrollment

Field tillage

Data element name: Field tillage	**Reporting question:** What is this field's tillage history?
Description: Prior to enrollment, what was the most common tillage approach during the past 3 years?	
Data type: List	**Select multiple values:** No
Measurement unit: Category	**Allowed values:** • None • Conventional, inversion • Conventional, vertical • No-till, direct seed • Reduced till, inversion • Reduced till, vertical • Strip till • Other
Logic: None – all respond	**Required:** Yes
Data collection level: Field	**Data collection frequency:** Initial enrollment

Practice past extent - farm

Data element name: Practice past extent - farm

Reporting question: What percent of the farm has implemented this CSAF practice (combination) previously?

Description: Prior to enrollment, on what portion of the whole farm had this (these) CSAF practice(s) ever been used by the primary operator? If multiple practices are planned to be implemented in this field, enter the value that best corresponds to the farm's prior experience with the planned set of practices.

Data type: List

Select multiple values: No

Measurement unit: Category

Allowed values:

- Never used
- Used on less than 25% of operation
- Used on 25-50% of operation
- Used on 51-75% of operation
- Used on more than 75% of operation

Logic: None – all respond

Required: Yes

Data collection level: Field

Data collection frequency: Initial enrollment

Field any CSAF practice

Data element name: Field any CSAF practice

Reporting question: What is this field's prior experience with CSAF practices?

Description: Prior to enrollment, have any CSAF practice or practices been used in this field in the past 3 years? CSAF practices are included in a list in Appendix A.

Data type: List

Select multiple values: No

Measurement unit: Category

Allowed values:

- Yes
- No
- I don't know

Logic: None – all respond

Required: Yes

Data collection level: Field

Data collection frequency: Initial enrollment

Practice past use - this field

Data element name: Practice past use - this field

Reporting question: Have this CSAF practice (combination) been implemented previously in this field?

Description: Prior to enrollment, had this (these) CSAF practice(s) been used in this field in the in the past 3 years? Enter yes if all of the practices had been used previously in this field; enter some if multiple practices are being implemented and one or more, but not all of the practices had been used previously in this field; and enter no if none of the practices had been used previously in this field.

Data type: List

Select multiple values: No

Measurement unit: Category

Allowed values:

- Yes
- Some
- No
- I don't know

Logic: None – all respond

Required: Yes

Data collection level: Field

Data collection frequency: Initial enrollment

Practice type

Data element name: Practice type 1-7

Reporting question: What CSAF practice is being implemented in this field through the project?

Description: Which CSAF practice or practices will be implemented on this field as part of enrollment in the project? CSAF practices are included in a list in Appendix A. The worksheet provides seven columns for this data element. Enter one value for each column. If there are fewer than 7 practices being implemented on this field through enrollment in the project, leave unnecessary columns blank.

Data type: List

Select multiple values: No

Measurement unit: Category

Allowed values: See list in Appendix A

Logic: None – all respond

Required: Yes

Data collection level: Field

Data collection frequency: Initial enrollment

Practice standard

Data element name: Practice standard 1-7

Reporting question: What standard does the CSAF practice follow?

Description: Is the CSAF practice being implemented on the field as part of enrollment in the project following a defined practice standard? The worksheet provides seven columns for this data element. Enter one value for each column, corresponding to the practice types entered in the previous columns. If there are fewer than 7 practices being implemented on this field through enrollment in the project, leave unnecessary columns blank.

Data type: List

Select multiple values: No

Measurement unit: Category

Allowed values:

- NRCS
- Other (specify)

Logic: None – all respond

Required: Yes

Data collection level: Field

Data collection frequency: Initial enrollment

Planned practice implementation year

Data element name: Practice 1-7 implementation year

Reporting question: What year is the CSAF practice planned to be implemented?

Description: Year that the CSAF practice is planned to be implemented on the field. Use 2022 for early adopters, defined as fields that have the practice actively implemented in 2022 (prior to contract being signed for this project). The worksheet provides seven columns for this data element. Enter one value for each column, corresponding to the practice types entered in the previous columns. If there are fewer than 7 practices being implemented on this field through enrollment in the project, leave unnecessary columns blank.

Data type: Integer

Select multiple values: No

Measurement unit: Year

Allowed values: 2022-2030

Logic: None – all respond

Required: Yes

Data collection level: Field

Data collection frequency: Initial enrollment

Practice extent

Data element name: Practice 1-7 extent

Reporting question: To what extent is the practice implemented?

Description: Total area, length, or head where the practice is being implemented in the field specified by the contract.

Data type: Decimal

Select multiple values: No

Measurement unit: Extent

Allowed values: .01-100,000

Logic: None – all respond

Required: Yes

Data collection level: Field

Data collection frequency: Initial enrollment

Practice extent unit	
Data element name: Practice 1-7 extent unit	**Reporting question:** Unit for extent of practice implementation
Description: Unit for extent of practice implementation on the field specified by the contract. If "other" is chosen, use the additional column to enter the appropriate unit.	
Data type: List	**Select multiple values:** No
Measurement unit: Category	**Allowed values:** • Acres • Head of livestock • Linear feet • Square feet • Other (specify)
Logic: None – all respond	**Required:** Yes
Data collection level: Field	**Data collection frequency:** Initial enrollment

CSAF Practice Sub-questions

For certain practices, additional questions are asked that provide information necessary to estimate greenhouse gas benefits from implementation of the practice. See Table 11 in the *CSAF Practice Sub-questions* section for descriptions of individual questions to be answered depending on the CSAF practices selected.

Farm Summary

Unique IDs

Farm ID	Unique Farm ID assigned by FSA
State or territory	State name (must match FSA farm enrollment data)
County of residence	County name (must match FSA farm enrollment data)

Producer TA received

Data element name: Producer TA received 1-3

Reporting question: What types of technical assistance were provided to this producer?

Description: Did the recipient or any partner provide technical assistance (TA) to the producer this year? Technical assistance is any training, education, capacity building or other support provided by any project partner(s) directly to producers enrolled in the project. List up to the top three most common types of TA provided to this producer. The worksheet provides three columns with a drop-down list of the allowed values. Choose one value for each column. If there are fewer than 3 TA types, leave unnecessary columns blank. If "other" is chosen, use the additional column to enter other TA types as free text.

Data type: List

Select multiple values: No

Measurement unit: Category

Allowed values:

- Demonstration plots
- Equipment demonstrations
- Group field days or in-person field workshops
- Hotline
- One-on-one enrollment assistance
- One-on-one field visits
- One-on-one producer mentorship
- Producer networks and peer-to-peer groups
- Retailer consultation
- Social media/digital tools
- Train-the-trainer opportunities
- Virtual meetings or field days
- Webinars and videos
- Written materials
- None
- Other (specify)

Logic: None – all respond

Required: Yes

Data collection level: Producer

Data collection frequency: Quarterly

Producer incentive amount

Data element name: Producer incentive amount

Reporting question: What is the total value of financial incentives provided to this producer?

Description: Total incentive payment received by the producer from USDA project funds for the year (non-cumulative). Do not include incentive payments made with partner match funds.

Data type: Decimal

Select multiple values: NA

Measurement unit: Dollars

Allowed values: $0-$5,000,000

Logic: None – all respond

Required: Yes

Data collection level: Producer

Data collection frequency: Quarterly

Incentive reason

Data element name: Incentive reason 1-4

Reporting question: Why were incentives provided to this producer?

Description: List up to four reasons for producer incentive payments. List the top 4 based on total value of the incentive for each reason. The worksheet provides four columns with a drop-down list of the allowed values. Choose one value for each column. If there are fewer than 4 reasons, leave unnecessary columns blank. If "other" is chosen, use the additional column to enter other reasons as free text.

Data type: List

Select multiple values: No

Measurement unit: Category

Allowed values:

- Avoided conversion
- Conference or training attendance
- Demographics/equity payment
- Enrollment
- Foregone revenue
- Historic data collection
- Identity preservation (supply chain tracing)
- Implementation of practices
- MMRV (e.g., data collection, reporting)
- Passing audit
- Price premium on output
- Yield change
- Other (specify)

Logic: None – all respond

Required: Yes

Data collection level: Producer

Data collection frequency: Quarterly

Incentive structure

Data element name: Incentive structure 1-4

Reporting question: What are the units for the financial incentives provided to this producer?

Description: List the structures (units) corresponding to the top 4 (by dollar value) incentive payments to producers. Production unit is weight or volume (bushel, kilogram, ton). The worksheet provides four columns with a drop-down list of the allowed values. Choose one value for each column. If there are fewer than 4 structure types, leave unnecessary columns blank. If "other" is chosen, use the additional column to enter other structure types as free text.

Data type: List

Select multiple values: No

Measurement unit: Category

Allowed values:

- Flat rate
- Per animal head
- Per area
- Per length
- Per production unit
- Per ton GHG
- Per tree
- Other (specify)

Logic: None – all respond

Required: Yes

Data collection level: Producer

Data collection frequency: Quarterly

Incentive type

Data element name: Incentive type 1-4

Reporting question: What type of incentives were provided to each producer?

Description: List the top 4 types of incentive payments to producers (based on dollar value). The worksheet provides four columns with a drop-down list of the allowed values. Choose one value for each column. If there are fewer than 4 incentive types, leave unnecessary columns blank. If "other" is chosen, use the additional column to enter other incentive types as free text.

Data type: List

Select multiple values: No

Measurement unit: Category

Allowed values:

- Cash payment
- Equipment loan
- Guaranteed commodity premium payment
- Inputs and supplies
- Land rental
- Loan
- Paid labor
- Post-harvest transportation
- Tuition or fees for training
- Other (specify)

Logic: None – all respond

Required: Yes

Data collection level: Producer

Data collection frequency: Quarterly

Payment on enrollment

Data element name: Payment on enrollment

Reporting question: What portion of the financial incentive is provided to the producer upon enrollment in the project?

Description: Any incentive payment provided to the producer upon enrollment/signing a contract, and not related to any implementation, MMRV or sales activities. Full payment means the full incentive amount for any contract held by the producer is paid upon enrollment. Partial payment means that only part of the full incentive amount for any contract held by the producer is paid upon enrollment. No payment means that none of the full incentive amount for any contract held by the producer is paid upon enrollment.

Data type: List

Select multiple values: No

Measurement unit: Category

Allowed values:

- Full payment
- Partial payment
- No payment

Logic: None – all respond

Required: Yes

Data collection level: Producer

Data collection frequency: Quarterly

Payment on implementation

Data element name: Payment on implementation

Reporting question: What portion of the financial incentive is provided to the producer upon implementation of the practices?

Description: Any incentive payment provided to the producer upon implementing the practices included in the contract. Full payment means the full incentive amount for any contract held by the producer is paid upon implementation. Partial payment means that only part of the full incentive amount for any contract held by the producer is paid upon implementation. No payment means that none of the full incentive amount for any contract held by the producer is paid upon implementation.

Data type: List

Select multiple values: No

Measurement unit: Category

Allowed values:

- Full payment
- Partial payment
- No payment

Logic: None – all respond

Required: Yes

Data collection level: Producer

Data collection frequency: Quarterly

Payment on harvest

Data element name: Payment on harvest

Reporting question: What portion of the financial incentive is provided to the producer upon harvest of the commodity?

Description: Any incentive payment provided to the producer upon harvesting or slaughtering the commodity included in the contract. Full payment means the full incentive amount for any contract held by the producer is paid upon harvest. Partial payment means that only part of the full incentive amount for any contract held by the producer is paid upon harvest. No payment means that none of the full incentive amount for any contract held by the producer is paid upon harvest.

Data type: List

Select multiple values: No

Measurement unit: Category

Allowed values:

- Full payment
- Partial payment
- No payment

Logic: None – all respond

Required: Yes

Data collection level: Producer

Data collection frequency: Quarterly

Payment on MMRV

Data element name: Payment on MMRV

Reporting question: What portion of the financial incentive is provided to the producer upon completing MMRV requirements?

Description: Any incentive payment provided to the producer upon completing the annual MMRV requirements included in the contract. Full payment means the full incentive amount for any contract held by the producer is paid upon MMRV being complete. Partial payment means that only part of the full incentive amount for any contract held by the producer is paid upon MMRV being complete. No payment means that none of the full incentive amount for any contract held by the producer is paid upon MMRV being complete.

Data type: List

Select multiple values: No

Measurement unit: Category

Allowed values:

- Full payment
- Partial payment
- No payment

Logic: None – all respond

Required: Yes

Data collection level: Producer

Data collection frequency: Quarterly

Payment on sale

Data element name: Payment on sale

Reporting question: What portion of the financial incentive is provided to producer upon sale of the commodity?

Description: Any incentive payment provided to the producer upon sale of the commodity included in the contract. Full payment means the full incentive amount for any contract held by the producer is paid upon sale. Partial payment means that only part of the full incentive amount for any contract held by the producer is paid upon sale. No payment means that none of the full incentive amount for any contract held by the producer is paid upon sale.

Data type: List

Select multiple values: No

Measurement unit: Category

Allowed values:

- Full payment
- Partial payment
- No payment

Logic: None – all respond

Required: Yes

Data collection level: Producer

Data collection frequency: Quarterly

Field Summary

Unique IDs

Farm ID	Unique Farm ID assigned by FSA
Tract ID	Unique Tract ID assigned by FSA
Field ID	Unique Field ID assigned by FSA
State or territory of field	State name (must match FSA farm enrollment data)
County of field	County name (must match FSA farm enrollment data)

Commodity type

Data element name: Commodity type

Reporting question: What type of commodity is produced from this field?

Description: Type of commodity produced in field enrolled in the project. See full list in Appendix B. The worksheet provides multiple columns with a drop-down list of the allowed values. Choose one value for each column. Leave unnecessary columns blank.

Data type: List

Select multiple values: No

Measurement unit: Category

Allowed values: FSA commodity list

Logic: None – all respond

Required: Yes

Data collection level: Field

Data collection frequency: Quarterly

Practice type

Data element name: Field practice type 1-7

Reporting question: What CSAF practice is being implemented in this field through the project?

Description: Which climate-smart agriculture or forestry (CSAF) practice or practices are being implemented in this project? CSAF practices are included in a list in Appendix A. The worksheet provides seven columns for this data element. Enter one value for each column. If there are fewer than 7 practices being implemented on this field through enrollment in the project, leave unnecessary columns blank.

Data type: List

Select multiple values: No

Measurement unit: Category

Allowed values: See list in Appendix A

Logic: None – all respond

Required: Yes

Data collection level: Field

Data collection frequency: Quarterly

Date practice complete

Data element name: Date practice complete

Reporting question: When did the project certify CSAF practice implementation as complete?

Description: Date that the project certifies that implementation of the CSAF practice is complete on the field. Use January of the year prior to contract year for early adopters, defined as fields that have the practice actively implemented in the year prior to a contract associated with this project is signed). The worksheet provides seven columns for this data element. Enter one value for each column, corresponding to the practice types entered in the previous columns. If there are fewer than 7 practices being implemented on this field through enrollment in the project, leave unnecessary columns blank.

Data type: Date

Select multiple values: No

Measurement unit: MM/DD/YYYY

Allowed values: 01/01/2023 – 12/31/2030

Logic: None – all respond

Required: Yes

Data collection level: Field

Data collection frequency: Quarterly

Contract end date

Data element name: Contract end date

Reporting question: Contract end date

Description: End date listed on the contract that enrolls the field in the project. If contract end date changes, submit updated end date during the next quarter's reporting.

Data type: Date

Select multiple values: No

Measurement unit: MM/DD/YYYY

Allowed values: 01/01/2023 – 12/31/2030

Logic: None – all respond

Required: Yes

Data collection level: Field

Data collection frequency: Quarterly

MMRV assistance provided

Data element name: MMRV assistance provided

Reporting question: Was MMRV assistance provided?

Description: Was any MMRV assistance provided to the primary operator for this field? MMRV assistance includes in-field support for the use of technologies, consultation on data collection and input, and other support related to MMRV. MMRV is defined a measurement (calculations or estimations of GHG emissions), monitoring (ongoing review and confirmation that the climate-smart practice has been implemented according to the agreed upon standard and documentation of any changes in the site, implementation, or GHG emissions impacts over time), reporting (documenting and sharing monitoring and measurement results with project partners, the recipient, and any third-party verification organization), and verification (independent confirmation that measurement, monitoring and reporting information are complete, accurate and reliable).

Data type: List

Select multiple values: No

Measurement unit: Category

Allowed values:

- Yes
- No
- I don't know

Logic: None – all respond

Required: Yes

Data collection level: Field

Data collection frequency: Quarterly

Marketing assistance provided

Data element name: Marketing assistance provided

Reporting question: Was marketing assistance provided?

Description: Was any marketing assistance provided to the primary operator for the commodity(ies) produced from this field? Marketing assistance includes guaranteeing the sale of the commodity(ies), providing a platform for the sale of the commodity(ies), providing a label, branding, or other support related to marketing.

Data type: List

Select multiple values: No

Measurement unit: Category

Allowed values:

- Yes
- No
- I don't know

Logic: None – all respond

Required: Yes

Data collection level: Field

Data collection frequency: Quarterly

Incentive per acre or head

Data element name: Incentive per acre or head

Reporting question: Is this field receiving a per-acre or per-head incentive?

Description: Is this field receiving an incentive payment to implement a specific CSAF practice or set of practices on a per-acre or per-head (livestock) basis?

Data type: List

Select multiple values: No

Measurement unit: Category

Allowed values:

- Yes
- No
- I don't know

Logic: None – all respond

Required: Yes

Data collection level: Field

Data collection frequency: Quarterly

Field commodity value

Data element name: Field commodity value	**Reporting question:** What is the value of the commodity produced on the enrolled field?
Description: The dollar value of the commodity produced on the enrolled field.	
Data type: Decimal	**Select multiple values**: No
Measurement unit: Dollars	**Allowed values:** $1-$10,000,000
Logic: None – all respond	**Required:** Yes
Data collection level: Field	**Data collection frequency:** Quarterly

Field commodity volume

Data element name: Field commodity volume	**Reporting question:** What is the volume of commodity produced on the enrolled field?
Description: The volume of the commodity produced on the enrolled field	
Data type: Decimal	**Select multiple values**: No
Measurement unit: Number	**Allowed values:** 1-10,000,000
Logic: None – all respond	**Required:** Yes
Data collection level: Field	**Data collection frequency:** Quarterly

Field commodity volume unit

Data element name: Field commodity volume unit	**Reporting question:** What is the unit of volume?
Description: The unit associated with the volume of the commodity produced on the enrolled field. If "other" is chosen, enter the appropriate value in the additional column.	
Data type: List	**Select multiple values**: No
Measurement unit: Category	**Allowed values:** • Bushels • Carcass weight pounds • Gallons • Head • Linear feet • Liveweight pounds • Pounds • Tons • Other (specify)
Logic: None – all respond	**Required:** Yes
Data collection level: Field	**Data collection frequency:** Quarterly

Cost of implementation

Data element name: Cost of implementation	**Reporting question:** What is the cost of practice implementation in the field?
Description: Total annual estimated cost per unit of implementing the practice(s) in the enrolled field.	
Data type: Decimal	**Select multiple values**: No
Measurement unit: Dollars	**Allowed values:** $1-$10,000,000
Logic: None – all respond	**Required:** Yes
Data collection level: Field	**Data collection frequency:** Quarterly

Cost unit

Data element name: Cost unit

Reporting question: What is the unit for cost?

Description: The unit associated with the cost of implementing CSAF practices in the field. If "other" is chosen, enter the appropriate value in the additional column.

Data type: List

Select multiple values: No

Measurement unit: Category

Allowed values:

- Per acre
- Per bushel
- Per head
- Per linear foot
- Per pound
- Per ton
- Other (specify)

Logic: None – all respond

Required: Yes

Data collection level: Field

Data collection frequency: Quarterly

Cost coverage

Data element name: Cost coverage

Reporting question: What percent of the practice cost is covered by the incentive?

Description: Estimated proportion of total annual cost of implementing the practice(s) that is covered by project incentives.

Data type: Integer

Select multiple values: No

Measurement unit: Percent

Allowed values: 0-100

Logic: None – all respond

Required: Yes

Data collection level: Field

Data collection frequency: Quarterly

Field GHG monitoring

Data element name: Field GHG monitoring 1-3

Reporting question: How were GHG impacts monitored in this field?

Description: Up to the top three forms of monitoring GHG benefits as part of MMRV requirements. Monitoring is defined as ongoing review and confirmation that the climate-smart practice has been implemented according to the agreed upon standard and documentation of any changes in the site, implementation, or GHG emissions impacts over time. Include up to 3 methods, based on which methods are most commonly used for this field. The worksheet provides three columns with a drop-down list of the allowed values. Choose one value for each column. If fewer than 3 GHG monitoring methods are used, leave unnecessary columns blank. If "other" is chosen, use the additional column to enter other GHG monitoring methods as free text.

Data type: List

Select multiple values: No

Measurement unit: Category

Allowed values:

- Drones
- Ground-level photos and videos
- On-farm inspection
- Plot-based sampling (e.g., soil, water)
- Producer records or attestation
- Satellite monitoring or remote sensing
- Soil metagenomics
- Soil sensors
- Water sensors
- Other (specify)

Logic: None – all respond

Required: Yes

Data collection level: Field

Data collection frequency: Quarterly

Field GHG reporting

Data element name: Field GHG reporting 1-3

Reporting question: How were GHG benefits reported for this field?

Description: Up to the top three forms of reporting on GHG benefits as part of MMRV requirements. Reporting is defined as documenting and sharing monitoring and measurement results with project partners, the recipient, and any third-party verification organization. Include up to 3 methods, based on which methods are most commonly used for this field. The worksheet provides three columns with a drop-down list of the allowed values. Choose one value for each column. If fewer than 3 GHG reporting methods are used, leave unnecessary columns blank. If "other" is chosen, use the additional column to enter other GHG reporting methods as free text.

Data type: List

Select multiple values: No

Measurement unit: Category

Allowed values:

- Automated devices
- Email
- Mobile app
- Paper
- Third-party actors
- Website
- Other (specify)

Logic: None – all respond

Required: Yes

Data collection level: Field

Data collection frequency: Quarterly

Field GHG verification

Data element name: Field GHG verification 1-3

Reporting question: How was implementation of practices to reduce GHG emissions verified for this field?

Description: Up to the top three of verification of GHG benefits as part of MMRV requirements. Verification is defined as independent confirmation that measurement, monitoring and reporting information are complete, accurate and reliable. Include up to 3 methods, based on which methods are most commonly used for this field. The worksheet provides three columns with a drop-down list of the allowed values. Choose one value for each column. If fewer than 3 GHG verification methods are used, leave unnecessary columns blank. If "other" is chosen, use the additional column to enter other GHG verification methods as free text.

Data type: List

Select multiple values: No

Measurement unit: Category

Allowed values:

- Artificial intelligence
- Computer modeling
- Recipient audit
- Photos
- Record audit
- Satellite imagery
- Site or field visit
- Third-party audit
- Other (specify)

Logic: None – all respond

Required: Yes

Data collection level: Field

Data collection frequency: Quarterly

Field GHG calculations

Data element name: Field GHG calculations

Reporting question: What methods are used to calculate GHG benefits in this field?

Description: List the method(s) used to calculate GHG benefits in this field. If yes to direct physical measurements, submit result reports (see *Supplemental Data Submission – Field direct GHG measurement results*).

Data type: List

Select multiple values: No

Measurement unit: Category

Allowed values:
- Models
- Direct field measurements
- Both

Logic: None – all respond

Required: Yes

Data collection level: Field

Data collection frequency: Quarterly

Field official GHG calculation

Data element name: Field official GHG calculation

Reporting question: What method was used to calculate the official GHG benefits in this field?

Description: List the method used to calculate the official GHG benefits in this field that are reported as part of the project's aggregate impact.

Data type: List

Select multiple values: No

Measurement unit: Category

Allowed values:
- Models
- Direct field measurements

Logic: None – all respond

Required: Yes

Data collection level: Field

Data collection frequency: Quarterly

Field official GHG ER

Data element name: Field official GHG emission reductions

Reporting question: What are the estimated total GHG emission reductions (CO2eq) in this field?

Description: Estimated greenhouse gas emission reductions from practice implementation in this field that are reported as part of the project's aggregate impact. This data element must be entered upon practice completion or annually, as appropriate.

Data type: Decimal

Select multiple values: No

Measurement unit: Metric tons CO_2eq

Allowed values: 0-10,000,000

Logic: None – all respond

Required: Yes

Data collection level: Field

Data collection frequency: Quarterly

Field official carbon stock

Data element name: Field official carbon stock

Reporting question: How much carbon has been sequestered in this field?

Description: Estimated total change in carbon stock based on practice implementation in this field. This data element can be reported in any quarter and is cumulative for the year. Conversion rate is one ton of carbon = 3.67 tons of CO_2eq.

Data type: Decimal

Select multiple values: No

Measurement unit: Metric tons CO_2eq

Allowed values: 0-10,000,000

Logic: None – all respond

Required: Yes

Data collection level: Field

Data collection frequency: Quarterly

Field official CO2 ER

Data element name: Field official CO2 emission reductions	**Reporting question:** What are the estimated total CO2 emission reductions in this field?
Description: Estimated total carbon dioxide emission reductions based on practice implementation in this field that are reported as part of the project's aggregate impact. This data element must be entered upon practice completion or annually, as appropriate.	
Data type: Decimal	**Select multiple values**: No
Measurement unit: Metric tons CO_2	**Allowed values:** 0-10,000,000
Logic: None – all respond	**Required:** Yes
Data collection level: Field	**Data collection frequency:** Quarterly

Field official CH4 ER

Data element name: Field official CH4 emission reductions	**Reporting question:** What are the estimated total CH4 emission reductions in this field?
Description: Estimated total methane emission reductions based on practice implementation in this field that are reported as part of the project's aggregate impact. This data element must be entered upon practice completion or annually, as appropriate. Conversion rate is one ton of CH_4 = 25 tons of CO_2eq.	
Data type: Decimal	**Select multiple values**: No
Measurement unit: Metric tons CH4 reduced in CO_2eq	**Allowed values:** 0-10,000,000
Logic: None – all respond	**Required:** Yes
Data collection level: Field	**Data collection frequency:** Quarterly

Field official N20 ER

Data element name: Field official N2O emission reductions	**Reporting question:** What are the estimated total N2O emission reductions in this field?
Description: Estimated total nitrous oxide emission reductions based on practice implementation in this field that are reported as part of the project's aggregate impact. This data element must be entered upon practice completion or annually, as appropriate. Conversion rate is one ton of N_2O = 298 tons of CO_2eq.	
Data type: Decimal	**Select multiple values**: No
Measurement unit: Metric tons N2O reduced in CO_2eq	**Allowed values:** 0-10,000,000
Logic: None – all respond	**Required:** Yes
Data collection level: Field	**Data collection frequency:** Quarterly

Field offsets produced

Data element name: Field offsets produced	**Reporting question:** How many carbon offsets have been produced in this field?
Description: Total carbon offsets produced in the field during the quarter (not cumulative). Offsets are defined as having been verified and certified using an accepted standard and sold into the carbon marketplace.	
Data type: Decimal	**Select multiple values**: No
Measurement unit: Metric tons CO_2eq	**Allowed values:** 0-10,000,000
Logic: None – all respond	**Required:** Yes
Data collection level: Field	**Data collection frequency:** Quarterly

Field insets produced

Data element name: Field insets produced	**Reporting question:** How many carbon insets have been produced in this field?
Description: Total carbon insets produced in the field during the quarter (not cumulative). Insets are defined as having been verified and certified using an accepted standard and accounted for within Scope 3 emissions for a firm.	
Data type: Decimal	**Select multiple values**: No
Measurement unit: Metric tons CO_2eq	**Allowed values:** 0-10,000,000
Logic: None – all respond	**Required:** Yes
Data collection level: Field	**Data collection frequency:** Quarterly

Other field measurement

Data element name: Other field measurement	**Reporting question:** Were data collected from the field for reasons other than GHG benefit estimation?
Description: Direct physical measurements or data collection taken in the field for any reason other than GHG benefits estimation. These reasons could include calibration of GHG estimation tools or models, tracking other environmental benefits (see Field environmental benefits report), and other reasons. If yes, submit corresponding reports (see *Supplemental data submission - Field direct measurement results*).	
Data type: List	**Select multiple values**: No
Measurement unit: Category	**Allowed values:** • Yes • No • I don't know
Logic: None – all respond	**Required:** Yes
Data collection level: Field	**Data collection frequency:** Quarterly

GHG Benefits - Alternate Modeled

Unique IDs	
Farm ID	Unique Farm ID assigned by FSA
Tract ID	Unique Tract ID assigned by FSA
Field ID	Unique Field ID assigned by FSA
State or territory of field	State name (must match FSA farm enrollment data)
County of field	County name (must match FSA farm enrollment data)

Commodity type

Data element name: Commodity type 1-6 **Reporting question:** What type of commodity(ies) is produced from this field?

Description: Type of commodity(ies) produced in field enrolled in the project. See full list of commodity options in Appendix B. The worksheet provides multiple columns with drop-down lists of the allowed values. Choose one value for each column. Leave unnecessary columns blank

Data type: List **Select multiple values**: No

Measurement unit: Category **Allowed values:** FSA commodity list

Logic: None – all respond **Required:** If project calculates GHG benefits using multiple methods

Data collection level: Field **Data collection frequency:** Annual

Practice type

Data element name: Practice type 1-7 **Reporting question:** What CSAF practice is being implemented by this project?

Description: Which CSAF practice or practices are being implemented in this project? CSAF practices are included in a list in Appendix A. The worksheet provides seven columns for this data element. Enter one value for each column. If there are fewer than 7 practices being implemented by the project, leave unnecessary columns blank.

Data type: List **Select multiple values:** No

Measurement unit: Category **Allowed values:** See list in Appendix A

Logic: None – all respond **Required:** If project calculates GHG benefits using multiple methods

Data collection level: Field **Data collection frequency:** Annual

GHG model

Data element name: GHG model

Reporting question: What model was used for alternate calculation of GHG benefits?

Description: Select the model used for the alternate calculation of the field's GHG benefits.

Data type: List

Select multiple values: No

Measurement unit: Category

Allowed values:

- ACC Calculator
- Agriculture, Forestry and Other Land Use (AFOLU) Carbon Calculator
- AIRES
- APEX
- Bowen Ratio Energy Balance
- Carat-Calculator
- CArPE
- CDFA web-based calculator
- COMET-Farm
- COMET-Planner
- CoolFarm
- Cover Crop Explore
- CropTrak
- CultivateAI's FMIS
- DayCent-CR
- DNDC
- DSSAT
- Earth Optics
- EcoPractices
- EPIC
- Extrapolation based on literature
- FieldPrint
- Granular
- GREET
- gTIR
- IFSM
- IPCC default emissions factors & models
- itree
- Nitrogen Balance
- Nutrient Tracking Tool (NTT)
- RCD Project Tracker
- Revised Universal Soil Loss equation 2 (RUSLE2)
- RuFaS
- SAFE-Link
- SALUS (CIBO)
- SNAPGRAZE
- SquareRoots
- SWAT-C
- SYMFONI
- Truterra Sustainability Tool
- Verra
- WEPP
- YardStick
- Other (specify)

Logic: None – all respond

Required: If project calculates GHG benefits using multiple methods

Data collection level: Field

Data collection frequency: Annual

Model start date

Data element name: Model start date	**Reporting question:** For what time period are the GHG benefits modeled (model start date)?
Description: Date that the model parameters begin.	
Data type: Date	**Select multiple values**: NA
Measurement unit: MM/DD/YYYY	**Allowed values:** 01/01/1950 – 12/31/2030
Logic: None – all respond	**Required:** If project calculates GHG benefits using multiple methods
Data collection level: Field	**Data collection frequency:** Annual

Model end date

Data element name: Model end date	**Reporting question:** For what time period are the GHG benefits modeled (model end date)?
Description: Date that the model parameters end.	
Data type: Date	**Select multiple values**: NA
Measurement unit: MM/DD/YYYY	**Allowed values:** 01/01/2023– 12/31/2030
Logic: None – all respond	**Required:** If project calculates GHG benefits using multiple methods
Data collection level: Field	**Data collection frequency:** Annual

Total GHG benefits estimated

Data element name: Total GHG benefits estimated	**Reporting question:** What is the alternate estimate of the field's total GHG emission reductions?
Description: Total greenhouse gas emission reductions from practice implementation in the field estimated using an alternate model.	
Data type: Decimal	**Select multiple values**: No
Measurement unit: Metric tons CO_2eq	**Allowed values:** 0-10,000,000
Logic: None – all respond	**Required:** If project calculates GHG benefits using multiple methods
Data collection level: Field	**Data collection frequency:** Annual

Total carbon stock estimated

Data element name: Total carbon stock estimated	**Reporting question:** What is the alternate estimate of how much carbon has the field has sequestered?
Description: Total change in carbon stock based on practice implementation in the field estimated using an alternate model. Conversion rate is one ton of carbon = 3.67 tons of CO_2eq.	
Data type: Decimal	**Select multiple values**: No
Measurement unit: Metric tons CO_2eq	**Allowed values:** 0-10,000,000
Logic: None – all respond	**Required:** If project calculates GHG benefits using multiple methods
Data collection level: Field	**Data collection frequency:** Annual

Total CO2 estimated

Data element name: Total CO2 estimated	**Reporting question:** What is the alternate estimate of the field's total CO2 emission reductions?
Description: Total carbon dioxide emission reductions based on practice implementation in the field estimated using an alternate model.	
Data type: Decimal	**Select multiple values**: No
Measurement unit: Metric tons CO_2	**Allowed values:** 0-10,000,000
Logic: None – all respond	**Required:** If project calculates GHG benefits using multiple methods
Data collection level: Field	**Data collection frequency:** Annual

Total CH4 estimated

Data element name: Total CH4 estimated	**Reporting question:** What is the alternate estimate of the field's total CH4 emission reductions?
Description: Total methane emission reductions based on practice implementation in the field estimated using an alternate model. Conversion rate is one ton of CH_4 = 25 tons of CO_2eq.	
Data type: Decimal	**Select multiple values**: No
Measurement unit: Metric tons CH4 reduced in CO_2eq	**Allowed values:** 0-10,000,000
Logic: None – all respond	**Required:** If project calculates GHG benefits using multiple methods
Data collection level: Field	**Data collection frequency:** Annual

Total field N20 estimated

Data element name: Total N2O estimated	**Reporting question:** What is the alternate estimate of the field's total N2O emission reductions?
Description: Total nitrous oxide emission reductions based on practice implementation in the field estimated using an alternate method. Conversion rate is one ton of N_2O = 298 tons of CO_2eq.	
Data type: Decimal	**Select multiple values**: No
Measurement unit: Metric tons N2O reduced in CO_2eq	**Allowed values:** 0-10,000,000
Logic: None – all respond	**Required:** If project calculates GHG benefits using multiple methods
Data collection level: Field	**Data collection frequency:** Annual

GHG Benefits - Measured

Unique IDs

Farm ID	Unique Farm ID assigned by FSA
Tract ID	Unique Tract ID assigned by FSA
Field ID	Unique Field ID assigned by FSA
State or territory of field	State name (must match FSA farm enrollment data)
County of field	County name (must match FSA farm enrollment data)

GHG measurement method

Data element name: GHG measurement method

Reporting question: What measurement method is used to calculate GHG benefits?

Description: Field-based measurement method used to calculate GHG benefits. If "other" is chosen, enter the appropriate value as free text in the additional column.

Data type: List

Select multiple values: No

Measurement unit: Category

Allowed values:

- Emissions measurement unit
- Flux towers
- Litterbags
- Plant measurements
- Portable emissions analyzers
- Soil flux chambers
- Soil samples
- Soil sensors
- Vehicle-mounted sensors
- Other (specify)

Logic: None – all respond

Required: If a project conducts soil samples or takes carbon stock or greenhouse gas emission measurements in this field

Data collection level: Field

Data collection frequency: Annual

Lab name

Data element name: Lab name

Reporting question: What is the name of the lab that processed the measurement samples?

Description: Name of entity that received data and conducted analysis of samples.

Data type: Text

Select multiple values: No

Measurement unit: NA

Allowed values: Free text

Logic: None – all respond

Required: If applicable

Data collection level: Field

Data collection frequency: Annual

Measurement start date

Data element name: Measurement start date

Reporting question: On what date did the measurement start?

Description: Date that the measurements began. If it was a single point in time, use the same date for start date and end date. If multiple measurements took place over a time period, use the date that the measurements first began.

Data type: Date

Select multiple values: No

Measurement unit: MM/DD/YYYY

Allowed values: 01/01/2023 – 12/31/2030

Logic: None – all respond

Required: If a project conducts soil samples or takes carbon stock or greenhouse gas emission measurements in this field

Data collection level: Field

Data collection frequency: Annual

Measurement end date

Data element name: Measurement end date

Reporting question: On what date did the measurement end?

Description: Date that the measurements began. If it was a single point in time, use the same date for start date and end date. If multiple measurements took place over a time period, use the date that the measurements were completed.

Data type: Date

Select multiple values: No

Measurement unit: MM/DD/YYYY

Allowed values: 01/01/2023– 12/31/2030

Logic: None – all respond

Required: If a project conducts soil samples or takes carbon stock or greenhouse gas emission measurements in this field

Data collection level: Field

Data collection frequency: Annual

Total CO2 reduction calculated

Data element name: Total CO2 reduction calculated

Reporting question: What are the total measured CO2 emission reductions?

Description: Total annual CO2 emission reductions based on practice implementation in the field calculated from in-field measurements.

Data type: Decimal

Select multiple values: No

Measurement unit: Metric tons CO_2

Allowed values: 0-10,000,000

Logic: None – all respond

Required: If a project takes carbon stock or greenhouse gas emission measurements in this field

Data collection level: Field

Data collection frequency: Annual

Total field carbon stock measured

Data element name: Total field carbon stock measured

Reporting question: What is the total amount of carbon sequestered based on repeat measurements in this field?

Description: Change in carbon stock based on practice implementation in the field calculated from repeat soil sampling in this field. (Results for initial field soil samples should be reported in the 'Soil sample result' and 'Measurement type" columns.) Conversion rate is one ton of carbon = 3.67 tons of CO_2eq.

Data type: Decimal

Select multiple values: No

Measurement unit: Metric tons CO_2eq

Allowed values: 0-10,000,000

Logic: None – all respond

Required: If a project conducts soil samples or takes carbon stock measurements in this field

Data collection level: Field

Data collection frequency: Annual

Total CH4 reduction calculated

Data element name: Total CH4 reduction calculated	**Reporting question:** What are the total measured CH4 emission reductions?
Description: Total annual methane emission reductions based on practice implementation in the field calculated from in-field measurements. Conversion rate is one ton of CH_4 = 25 tons of CO_2eq.	
Data type: Decimal	**Select multiple values**: No
Measurement unit: Metric tons CH4 reduced in CO_2eq	**Allowed values:** 0-10,000,000
Logic: None – all respond	**Required:** If a project conducts soil samples or takes carbon stock or greenhouse gas emission measurements in this field
Data collection level: Field	**Data collection frequency:** Annual

Total N20 reduction calculated

Data element name: Total N2O reduction calculated	**Reporting question:** What are the total measured N2O emission reductions?
Description: Total annual nitrous oxide emission reductions based on practice implementation in the field calculated from in-field measurements. Conversion rate is one ton of N_2O = 298 tons of CO_2eq.	
Data type: Decimal	**Select multiple values**: No
Measurement unit: Metric tons N2O reduced in CO_2eq	**Allowed values:** 0-10,000,000
Logic: None – all respond	**Required:** If a project conducts soil samples or takes carbon stock or greenhouse gas emission measurements in this field
Data collection level: Field	**Data collection frequency:** Annual

Soil sample result

Data element name: Soil sample result	**Reporting question:** What is the numeric result from this soil sample?
Description: Results of measurement(s) taken to determine the carbon stock of a soil (the tons of carbon found in a specified volume of soil).	
Data type: Decimal	**Select multiple values**: No
Measurement unit: Amount	**Allowed values:** .00001-100,000
Logic: None – all respond	**Required:** If a project conducts soil samples in this field
Data collection level: Field	**Data collection frequency:** Annual

Soil sample result unit

Data element name: Soil sample result unit

Reporting question: What is unit for the soil sample result?

Description: Unit for the corresponding soil sample result. The worksheet provides a drop-down list of choices for this data element. If "other" is chosen, use the additional column to enter the appropriate yield unit as free text.

Data type: List

Select multiple values: No

Measurement unit: Category

Allowed values:

- Percent
- Ppm
- Grams
- Grams per cubic centimeter
- Other (specify)

Logic: None – all respond

Required: If a project conducts soil samples in this field

Data collection level: Field

Data collection frequency: Annual

Measurement type

Data element name: Measurement type

Reporting question: What type of analysis was conducted for this soil sample?

Description: Type of soil analysis conducted. The worksheet provides a drop-down list of choices for this data element. If "other" is chosen, use the additional column to enter the appropriate yield unit as free text.

Data type: List

Select multiple values: No

Measurement unit: Category

Allowed values:

- Organic matter
- Total organic carbon
- Bulk density
- Other (specify)

Logic: None – all respond

Required: If a project conducts soil samples in this field

Data collection level: Field

Data collection frequency: Annual

Additional Environmental Benefits

Unique IDs	
Farm ID	Unique Farm ID assigned by FSA
Tract ID	Unique Tract ID assigned by FSA
Field ID	Unique Field ID assigned by FSA
State or territory of field	State name (must match FSA farm enrollment data)
County of field	County name (must match FSA farm enrollment data)

Environmental benefits

Data element name: Environmental benefits

Reporting question: Are environmental benefits other than GHGs being tracked in the field?

Description: Tracking of environmental benefits other than greenhouse gas emission reductions and carbon sequestration in the enrolled field. Tracking means at a minimum using some form of monitoring and reporting that can quantify benefits.

Data type: List

Select multiple values: No

Measurement unit: Category

Allowed values:

- Yes
- No
- I don't know

Logic: None – all respond

Required: Yes

Data collection level: Field

Data collection frequency: Annual

Reduction in nitrogen loss

Data element name: Reduction in nitrogen loss

Reporting question: Are reductions in nitrogen losses being tracked in the field?

Description: Tracking reductions in nitrogen losses in the enrolled field. Tracking means at a minimum using some form of monitoring and reporting that can quantify benefits.

Data type: List

Select multiple values: No

Measurement unit: Category

Allowed values:

- Yes
- No
- I don't know

Logic: Respond if yes to 'Environmental benefits'

Required: Yes

Data collection level: Field

Data collection frequency: Annual

Reduction in nitrogen loss amount

Data element name: Reduction in nitrogen loss amount

Reporting question: How much reduction in nitrogen losses have been measured in the field?

Description: Total amount of reduction in nitrogen losses that is measured and reported in the enrolled field.

Data type: Decimal

Select multiple values: No

Measurement unit: Amount

Allowed values: 0-1,000,000

Logic: Respond if yes to 'Reduction in nitrogen loss'

Required: Yes

Data collection level: Field

Data collection frequency: Annual

Reduction in nitrogen loss amount unit

Data element name: Reduction in nitrogen loss amount unit	**Reporting question:** What is the unit for how much reduction in nitrogen losses have been measured in the field?
Description: Unit for the total amount of reduction in nitrogen losses that is measured and reported in the enrolled field. If "other" is chosen, enter the appropriate value as free text in the additional column.	
Data type: List	**Select multiple values**: No
Measurement unit: Category	**Allowed values:** • Kilograms • Metric tons • Pounds • Other (specify)
Logic: Respond if yes to 'Reduction in nitrogen loss'	**Required:** Yes
Data collection level: Field	**Data collection frequency:** Annual

Reduction in nitrogen loss purpose

Data element name: Reduction in nitrogen loss purpose	**Reporting question:** What is the purpose of tracking reduction in nitrogen losses?
Description: Purpose of tracking reduction in nitrogen losses in the enrolled field. If "other" is chosen, enter the appropriate value as free text in the additional column.	
Data type: List	**Select multiple values**: No
Measurement unit: Category	**Allowed values:** • Commodity marketing • Producing insets • Producing offsets • I don't know • Other (specify)
Logic: Respond if yes to 'Reduction in nitrogen loss'	**Required:** Yes
Data collection level: Project	**Data collection frequency:** Annual

Reduction in phosphorus loss

Data element name: Reduction in phosphorus loss	**Reporting question:** Are reductions in phosphorus losses being tracked in the field?
Description: Tracking of reductions in phosphorus losses in the enrolled field. Tracking means at a minimum using some form of monitoring and reporting that can quantify benefits.	
Data type: List	**Select multiple values**: No
Measurement unit: Category	**Allowed values:** • Yes • No • I don't know
Logic: Respond if yes to 'Environmental benefits'	**Required:** Yes
Data collection level: Field	**Data collection frequency:** Annual

Reduction in phosphorus loss amount

Data element name: Reduction in phosphorus loss amount	**Reporting question:** How much reduction in phosphorus losses have been measured in the field?
Description: Total amount of reduction in phosphorus losses that is measured in the field.	
Data type: Decimal	**Select multiple values**: No
Measurement unit: Amount	**Allowed values:** 0-1,000,000
Logic: Respond if yes to 'Reduction in phosphorus loss'	**Required:** Yes
Data collection level: Field	**Data collection frequency:** Annual

Reduction in phosphorus loss amount unit

Data element name: Reduction in phosphorus loss amount unit	**Reporting question:** What is the unit for the reduction in phosphorus losses measured in the field?
Description: Unit for the total amount of reduction in phosphorus losses that is measured in the enrolled field. If "other" is chosen, enter the appropriate value as free text in the additional column.	
Data type: List	**Select multiple values**: No
Measurement unit: Category	**Allowed values:** • Kilograms • Metric tons • Pounds • Other (specify)
Logic: Respond if yes to 'Reduction in phosphorus loss'	**Required:** Yes
Data collection level: Field	**Data collection frequency:** Annual

Reduction in phosphorus loss purpose

Data element name: Reduction in phosphorus loss purpose	**Reporting question:** What is the purpose of tracking reductions in phosphorus losses?
Description: Purpose of tracking reduction in phosphorus losses in the enrolled field. If "other" is chosen, enter the appropriate value as free text in the additional column.	
Data type: List	**Select multiple values**: No
Measurement unit: Category	**Allowed values:** • Commodity marketing • Producing insets • Producing offsets • I don't know • Other (specify)
Logic: Respond if yes to 'Reduction in phosphorus loss'	**Required:** Yes
Data collection level: Field	**Data collection frequency:** Annual

Other water quality

Data element name: Other water quality	**Reporting question:** Are other water quality metrics being tracked in the field?
Description: Project tracking of other water quality metrics in the enrolled field. Tracking means at a minimum using some form of monitoring and reporting that can quantify benefits.	
Data type: List	**Select multiple values**: No
Measurement unit: Category	**Allowed values:** • Yes • No • I don't know
Logic: Respond if yes to 'Environmental benefits'	**Required:** Yes
Data collection level: Field	**Data collection frequency:** Annual

Other water quality type

Data element name: Other water quality type	**Reporting question:** What type of other water quality metric have been measured in the field?
Description: Type of other water quality metric (besides nitrogen loss and phosphorus loss reductions) that is measured in the field. If "other" is chosen, enter the appropriate value as free text in the additional column.	
Data type: List	**Select multiple values**: No
Measurement unit: Category	**Allowed values:** • Sediment load reduction • Temperature • Other (specify)
Logic: Respond if yes to 'Other water quality'	**Required:** Yes
Data collection level: Field	**Data collection frequency:** Annual

Other water quality amount

Data element name: Other water quality amount	**Reporting question:** How much reduction in other water quality metrics have been measured in the field?
Description: Total amount of reduction in other water quality metrics that is measured in the enrolled field.	
Data type: Decimal	**Select multiple values**: No
Measurement unit: Amount	**Allowed values:** 0-1,000,000
Logic: Respond if yes to 'Other water quality'	**Required:** Yes
Data collection level: Field	**Data collection frequency:** Annual

Other water quality amount unit

Data element name: Other water quality amount unit	**Reporting question:** What is the unit for the reduction in other water quality metrics measured in the field?
Description: Unit for the total amount of reduction in other water quality metrics that is measured in the enrolled field. If "other" is chosen, enter the appropriate value as free text in the additional column.	
Data type: List	**Select multiple values**: No
Measurement unit: Category	**Allowed values:** • Degrees F • Kilograms • Kilograms per liter • Metric tons • Pounds • Other (specify)
Logic: Respond if yes to 'Other water quality'	**Required:** Yes
Data collection level: Field	**Data collection frequency:** Annual

Other water quality purpose

Data element name: Other water quality purpose	**Reporting question:** What is the purpose of tracking other water quality benefits?
Description: Purpose of tracking other water quality benefits in the enrolled field. If "other" is chosen, enter the appropriate value as free text in the additional column.	
Data type: List	**Select multiple values**: No
Measurement unit: Category	**Allowed values:** • Commodity marketing • Producing insets • Producing offsets • I don't know • Other (specify)
Logic: Respond if yes to 'Other water quality'	**Required:** Yes
Data collection level: Field	**Data collection frequency:** Annual

Water quantity

Data element name: Water quantity	**Reporting question:** Is water conservation being tracked in the field?
Description: Tracking of water conservation or reduction in use in the enrolled field. Tracking means at a minimum using some form of monitoring and reporting that can quantify benefits.	
Data type: List	**Select multiple values**: No
Measurement unit: Category	**Allowed values:** • Yes • No • I don't know
Logic: Respond if yes to 'Environmental benefits'	**Required:** Yes
Data collection level: Field	**Data collection frequency:** Annual

Water quantity amount

Data element name: Water quantity amount	**Reporting question:** How much water conservation has been measured in the field?
Description: Total amount of water conservation or reduction that is measured in the field.	
Data type: Decimal	**Select multiple values**: No
Measurement unit: Amount	**Allowed values:** 0-1,000,000
Logic: Respond if yes to 'Water quantity'	**Required:** Yes
Data collection level: Field	**Data collection frequency:** Annual

Water quantity amount unit

Data element name: Water quantity amount unit	**Reporting question:** What is the unit for the amount of water conservation measured in the field?
Description: Unit for the total amount of water conservation or reduced use that is measured and reported in the enrolled field. If "other" is chosen, enter the appropriate value as free text in the additional column.	
Data type: List	**Select multiple values**: No
Measurement unit: Category	**Allowed values:** • Acre-feet • Cubic feet • Other (specify)
Logic: Respond if yes to 'Water quantity'	**Required:** Yes
Data collection level: Field	**Data collection frequency:** Annual

Water quantity purpose

Data element name: Water quantity purpose	**Reporting question:** What is the purpose of tracking water conservation?
Description: Purpose of tracking water conservation or reductions in water use in the enrolled field. If "other" is chosen, enter the appropriate value as free text in the additional column.	
Data type: List	**Select multiple values**: No
Measurement unit: Category	**Allowed values:** • Commodity marketing • Producing insets • Producing offsets • I don't know • Other (specify)
Logic: Respond if yes to 'Water quantity'	**Required:** Yes
Data collection level: Field	**Data collection frequency:** Annual

Reduced erosion

Data element name: Reduced erosion	**Reporting question:** Is reduced soil erosion being tracked in the field?
Description: Tracking of reduced soil erosion in the enrolled field. Tracking means at a minimum using some form of monitoring and reporting that can quantify benefits.	
Data type: List	**Select multiple values**: No
Measurement unit: Category	**Allowed values:** • Yes • No • I don't know
Logic: Respond if yes to 'Environmental benefits'	**Required:** Yes
Data collection level: Field	**Data collection frequency:** Annual

Reduced erosion amount

Data element name: Reduced erosion amount	**Reporting question:** How much erosion reduction has been measured in the field?
Description: Total amount of erosion reduction that is measured in the enrolled field.	
Data type: Decimal	**Select multiple values**: No
Measurement unit: Amount	**Allowed values:** 0-1,000,000
Logic: Respond if yes to 'Reduced erosion'	**Required:** Yes
Data collection level: Field	**Data collection frequency:** Annual

Reduced erosion amount unit

Data element name: Reduced erosion unit	**Reporting question:** What is the unit for the amount of erosion reduction measured?
Description: Unit for the total amount of erosion reduction from enrolled fields that is measured and reported by the project. If "other" is chosen, enter the appropriate value as free text in the additional column.	
Data type: List	**Select multiple values**: No
Measurement unit: Category	**Allowed values:** • Tons • Other (specify)
Logic: Respond if yes to 'Reduced erosion'	**Required:** Yes
Data collection level: Field	**Data collection frequency:** Annual

Reduced erosion purpose

Data element name: Reduced erosion purpose	**Reporting question:** What is the purpose of tracking reduced erosion in the field?
Description: Purpose of tracking reduced erosion the enrolled field. If "other" is chosen, enter the appropriate value as free text in the additional column.	
Data type: List	**Select multiple values**: No
Measurement unit: Category	**Allowed values:** • Commodity marketing • Producing insets • Producing offsets • I don't know • Other (specify)
Logic: Respond if yes to 'Reduced erosion'	**Required:** Yes
Data collection level: Field	**Data collection frequency:** Annual

Reduced energy use

Data element name: Reduced energy use	**Reporting question:** Is reduced energy use being tracked in the field?
Description: Tracking of reduced energy use in the enrolled field. Tracking means at a minimum using some form of monitoring and reporting that can quantify benefits.	
Data type: List	**Select multiple values**: No
Measurement unit: Category	**Allowed values:** • Yes • No • I don't know
Logic: Respond if yes to 'Environmental benefits'	**Required:** Yes
Data collection level: Field	**Data collection frequency:** Annual

Reduced energy use amount

Data element name: Reduced energy use amount	**Reporting question:** How much energy use reduction has been measured in the field?
Description: Total amount of energy use reduction that is measured in the enrolled field.	
Data type: Decimal	**Select multiple values**: No
Measurement unit: Amount	**Allowed values:** 0-1,000,000
Logic: Respond if yes to 'Reduced energy use'	**Required:** Yes
Data collection level: Field	**Data collection frequency:** Annual

Reduced energy use amount unit

Data element name: Reduced energy use unit	**Reporting question:** What is the unit for the energy use reduction measured in the field?
Description: Unit for the total amount of energy use reduction that is measured in the enrolled field. If "other" is chosen, enter the appropriate value as free text in the additional column.	
Data type: List	**Select multiple values**: No
Measurement unit: Category	**Allowed values:** • Kilowatt hours • Other (specify)
Logic: Respond if yes to 'Reduced energy use'	**Required:** Yes
Data collection level: Field	**Data collection frequency:** Annual

Reduced energy use purpose

Data element name: Reduced energy use purpose

Reporting question: What is the purpose of tracking reduced energy use in the field?

Description: Purpose of tracking reduced energy use in the enrolled field. If "other" is chosen, enter the appropriate value as free text in the additional column.

Data type: List

Select multiple values: No

Measurement unit: Category

Allowed values:

- Commodity marketing
- Producing insets
- Producing offsets
- I don't know
- Other (specify)

Logic: Respond if yes to 'Reduced energy use'

Required: Yes

Data collection level: Field

Data collection frequency: Annual

Avoided land conversion

Data element name: Avoided land conversion

Reporting question: Is avoided land conversion being tracked in the field?

Description: Tracking of avoided land conversion in the enrolled field. Tracking means at a minimum using some form of monitoring and reporting that can quantify benefits. Land conservation means land use changing from agricultural uses to non-agricultural uses.

Data type: List

Select multiple values: No

Measurement unit: Category

Allowed values:

- Yes
- No
- I don't know

Logic: Respond if yes to 'Environmental benefits'

Required: Yes

Data collection level: Field

Data collection frequency: Annual

Avoided land conversion amount

Data element name: Avoided land conversion amount

Reporting question: How much avoided land conversion has been measured in the field?

Description: Total amount of avoided land conversion that is measured in the enrolled field.

Data type: Decimal

Select multiple values: No

Measurement unit: Amount

Allowed values: 0-1,000,000

Logic: Respond if yes to 'Avoided land conversion'

Required: Yes

Data collection level: Field

Data collection frequency: Annual

Avoided land conversion amount unit

Data element name: Avoided land conversion unit

Reporting question: What is the unit for the amount of avoided land conversion measured in the field?

Description: Unit for the total amount of avoided land conversion that is measured in the enrolled field. If "other" is chosen, enter the appropriate value as free text in the additional column.

Data type: List

Select multiple values: No

Measurement unit: Category

Allowed values:

- Acres
- Other (specify)

Logic: Respond if yes to 'Avoided land conversion'

Required: Yes

Data collection level: Field

Data collection frequency: Annual

Avoided land conversion purpose

Data element name: Avoided land conversion purpose

Reporting question: What is the purpose of tracking avoided land conversion in the field?

Description: Purpose of tracking avoided land conversion in the enrolled field. If "other" is chosen, enter the appropriate value as free text in the additional column.

Data type: List

Select multiple values: No

Measurement unit: Category

Allowed values:

- Commodity marketing
- Producing insets
- Producing offsets
- I don't know
- Other (specify)

Logic: Respond if yes to 'Avoided land conversion'

Required: Yes

Data collection level: Field

Data collection frequency: Annual

Improved wildlife habitat

Data element name: Improved wildlife habitat

Reporting question: Are improvements to wildlife habitat being tracked in the field?

Description: Tracking of improvements to wildlife in and around the enrolled field. Tracking means at a minimum using some form of monitoring and reporting that can quantify benefits.

Data type: List

Select multiple values: No

Measurement unit: Category

Allowed values:

- Yes
- No
- I don't know

Logic: Respond if yes to 'Environmental benefits'

Required: Yes

Data collection level: Field

Data collection frequency: Annual

Improved wildlife habitat amount

Data element name: Improved wildlife habitat amount

Reporting question: How much improved wildlife habitat has been measured in the field?

Description: Total amount of improved wildlife habitat that is measured in and around the enrolled fields.

Data type: Decimal

Select multiple values: No

Measurement unit: Amount

Allowed values: 0-1,000,000

Logic: Respond if yes to 'Improved wildlife habitat'

Required: Yes

Data collection level: Field

Data collection frequency: Annual

Improved wildlife habitat amount unit

Data element name: Improved wildlife habitat unit

Reporting question: What is the unit for the amount of improved wildlife habitat measured in the field?

Description: Unit for the total amount of improved wildlife habitat that is measured in and around enrolled fields. If "other" is chosen, enter the appropriate value as free text in the additional column.

Data type: List

Select multiple values: No

Measurement unit: Category

Allowed values:

- Acres
- Linear feet
- Other (specify)

Logic: Respond if yes to 'Improved wildlife habitat'

Required: Yes

Data collection level: Field

Data collection frequency: Annual

Improved wildlife habitat purpose	
Data element name: Improved wildlife habitat purpose	**Reporting question:** What is the purpose of tracking improved wildlife habitat in the field?
Description: Purpose of tracking improved wildlife habitat in the enrolled field. If "other" is chosen, enter the appropriate value as free text in the additional column.	
Data type: List	**Select multiple values**: No
Measurement unit: Category	**Allowed values:** • Commodity marketing • Producing insets • Producing offsets • I don't know • Other (specify)
Logic: Respond if yes to 'Improved wildlife habitat'	**Required:** Yes
Data collection level: Field	**Data collection frequency:** Annual

CSAF Practice Sub-questions

For some CSAF practices, there is an additional set of questions that are unique to each practice. Responses to these questions are needed to verify estimated GHG benefits of these practices. If a field is implementing a CSAF practice with an NRCS CPS code in Table 11, answer the follow-up questions listed next to the relevant practice name in the table. Use the *Supplemental Reporting Workbook – CSAF Practice Sub-questions* to report the required information.

Table 11. Follow-on questions for select CSAF practices

Practice name and code	Follow-up question	Options (select one)
Alley Cropping (CPS 311)	Species category (select most common/extensive type if using more than one)	Coniferous trees Deciduous trees Shrubs
	Species density (number of trees planted per acre)	1-10,000
Anaerobic Digester (CPS 366)	Waste storage system prior to installing anaerobic digester	Aerobic lagoon Anaerobic digester (complex mix) with energy generation Anaerobic digester (plug flow) with energy generation Anaerobic lagoon Composting Covered lagoon (no energy generation or flaring) Covered lagoon with energy generation Covered lagoon with flaring Daily spread Deep bedding pack Deep pit Dry lot Dry stacking/solid storage Pasture/range/paddock Poultry with bedding Poultry without bedding (e.g., high rise) Slurry tank/basin
	Digester type	Covered lagoon with energy generation Covered lagoon with flaring Covered lagoon (no energy generation or flaring) Complex mix with energy generation Plug flow with energy generation Other (specify)
	Additional feedstock source (select most common if using more than one)	Food waste Straw or bedding Wastewater Other (specify)

Combustion System Improvement (CPS 372)	Fuel type before installation	Coal Diesel Electricity Gasoline Kerosene Liquified petroleum gas (LPG) Natural gas Propane Wood Other (specify)
	Fuel amount before installation	0-1,000,000
	Fuel amount unit before installation	Cubic feet (natural gas) Gallons (diesel, gasoline, propane, LPG, kerosene) Kilowatt-hours (electricity) Pounds (wood, coal) Other (specify)
	Fuel type after installation	Coal Diesel Electricity Gasoline Kerosene Liquified petroleum gas (LPG) Natural gas Propane Wood Other (specify)
	Fuel amount after installation	0-1,000,000
	Fuel amount unit after installation	Cubic feet (natural gas) Gallons (diesel, gasoline, propane, LPG, kerosene) Kilowatt-hours (electricity) Pounds (wood, coal) Other (specify)
Conservation Cover (CPS 327)	Species category (select most common/extensive type if using more than one)	Brassicas Grasses Legumes Non-legume broadleaves Shrubs

Conservation Crop Rotation (CPS 328)	Conservation crop type	Brassica Broadleaf Cool season Grass Legume Warm season
	Change implemented	Added perennial crop Reduced fallow period Both
	Conservation crop rotation tillage type	Conventional (plow, chisel, disk) No-till, direct seed Reduced till Strip till None Other (specify)
	Total conservation crop rotation length in days	1-120
Contour Buffer Strips (CPS 332)	Strip width (feet)	1-100
	Species category	Grasses Forbs Mix
Cover Crop (CPS 340)	Species category (select most common/extensive type if using more than one)	Brassicas Forbs Grasses Legume Non-legume broadleaves
	Cover crop planned management	Grazing Haying Termination
	Cover crop termination method	Burning Herbicide application Incorporation Mowing Rolling/crimping Winter kill/frost
Critical Area Planting (CPS 342)	Species category (select most common/extensive type if using more than one)	Grass Grass legume/forb mix Herbaceous woody mix Perennial or reseeding Shrubs Trees
Feed Management (CPS 592)	Crude protein (percent)	0-100
	Fat (percent)	0-100
	Feed additives/supplements	Chemical Edible oils/fats Seaweed/kelp Other (specify)
Field Border (CPS 386)	Species category (select most common/extensive type if using more than one)	Forbs Grasses Mix Shrubs

Filter Strip (CPS 393)	Strip width (feet)	20-1,000
	Species category (select most common/extensive type if using more than one)	Forbs Grasses Mix Shrubs
Forest Farming (CPS 379)	Land use in previous year	Forest Multi-story cropping Pasture/grazing land Row crops Other agroforestry
Forest Stand Improvement (CPS 666)	Purpose for implementation	Maintain or improve forest carbon stocks Maintain or improve forest health and productivity Maintain or improve forest structure and composition Maintain or improve wildlife, fish, and pollinator habitat Manage natural precipitation more efficiently Reduce forest pest pressure Reduce forest wildfire hazard
Grassed Waterway (CPS 412)	Species category (select most common/extensive type if using more than one)	Flowering Plants Forbs Grasses
Hedgerow Planting (CPS 422)	Species category (select most common/extensive type if using more than one)	Grasses Shrubs Trees
	Species density (number of trees planted per acre)	1-10,000
Herbaceous Wind Barriers (CPS 603)	Species category (select most common/extensive type if using more than one)	Forbs Grasses Mix Shrubs
	Barrier width (feet)	1-1,000
	Number of rows	1-100
Mulching (CPS 484)	Mulch type	Gravel Natural Synthetic Wood
	Mulch cover (percent of field)	0-100

Nutrient management (CPS 590)	Nutrient type with CPS 590	Biosolids Commercial fertilizers Compost EEF (nitrification inhibitor) EEF (slow or controlled release) EEF (urease inhibitor) Green manure Liquid animal manure Organic by-products Organic residues or materials Solid/semi-solid animal manure Wastewater
	Nutrient application method with CPS 590	Banded Broadcast Injection Irrigation Surface application Surface application with tillage Variable rate
	Nutrient application method in the previous year	Banded Broadcast Injection Irrigation Surface application Surface application with tillage Variable rate
	Nutrient application timing with CPS 590	Single pre-planting Single post-planting Split pre- and post-planting Split post-planting
	Nutrient application timing in the previous year	Single pre-planting Single post-planting Split pre- and post-planting Split post-planting
	Nutrient application rate with CPS 590	0-20,000
	Nutrient application rate unit with CPS 590	Gallons per acre Pounds per acre
	Nutrient application rate change	Decrease compared to previous year Increase compared to previous year No change
Pasture and Hay Planting (CPS 512)	Species category (select most common/extensive type if using more than one)	Cool-season broadleaf Cool-season grass Warm-season broadleaf Warm-season grass
	Termination process	Grazing Haying (i.e., cutting and baling) Other (specify)
Prescribed Grazing (CPS 528)	Grazing type	Cell grazing Deferred rotational Management intensive Rest-rotation

Range Planting (CPS 550)	Species category (select most common/extensive type if using more than one)	Forbs Grasses Legumes Shrubs Trees
Residue and Tillage Management – No-till (CPS 329)	Surface disturbance	None Seed row only
Residue and Tillage Management – Reduced Till (CPS 345)	Surface disturbance	None Seed row/ridge tillage for planting Shallow across most of the soil surface Vertical/mulch
Riparian Forest Buffer (CPS 391)	Species category (select most common/extensive type if using more than one)	Coniferous trees Deciduous trees Shrubs
	Species density (number of trees planted per acre)	1-10,000
Riparian Herbaceous Cover (CPS 390)	Species category (select most common/extensive type if using more than one)	Ferns Forbs Grasses Legumes Rushes Sedges
Roofs and Covers (CPS 367)	Roof/cover type	Concrete Flexible geomembrane Metal Timber Other (specify)
Silvopasture (CPS 381)	Species category (select most common/extensive type if using more than one)	Coniferous trees Deciduous trees Forage Shrubs
	Species density (number of trees planted per acre)	1-10,000
Stripcropping (CPS 585)	Strip width (feet)	1-1,000
	Crop category (select most common/extensive type if using more than one)	Erosion resistant crops Fallow Sediment trapping crops
	Number of strips	2-100
Tree/Shrub Establishment (CPS 612)	Species category (select most common/extensive type if using more than one)	Coniferous trees Deciduous trees Shrubs
	Species density (number of trees planted per acre)	1-10,000
Vegetative Barrier (CPS 601)	Species category (select most common/extensive type if using more than one)	Grasses Grass forb mix Grass legume mix
	Barrier width (feet)	3-1,000

Waste Separation Facility (CPS 632)	Separation type	Chemical (e.g., salts, polymers) Mechanical (e.g., screens, presses) Settling basin
	Most common use of solids	Bedding Field applied Other (specify)
Waste Storage Facility (CPS 313)	Waste storage system prior to installing your waste storage facility	Aerobic lagoon Anaerobic digester (complex mix) with energy generation Anaerobic digester (plug flow) with energy generation Anaerobic lagoon Composting Covered lagoon (no energy generation or flaring) Covered lagoon with energy generation Covered lagoon with flaring Daily spread Deep bedding pack Deep pit Dry lot Dry stacking/solid storage Pasture/range/paddock Poultry with bedding Poultry without bedding (e.g., high rise) Slurry tank/basin
Waste Treatment (CPS 629)	Treatment type	Biological Chemical Mechanical
Waste Treatment Lagoon (CPS 359)	Waste storage system prior to installing waste treatment lagoon	Aerobic lagoon Anaerobic digester (complex mix) with energy generation Anaerobic digester (plug flow) with energy generation Anaerobic lagoon Composting Covered lagoon (no energy generation or flaring) Covered lagoon with energy generation Covered lagoon with flaring Daily spread Deep bedding pack Deep pit Dry lot Dry stacking/solid storage Pasture/Range/Paddock Poultry with bedding Poultry without bedding (e.g., high rise) Slurry tank/basin
	Is there a lagoon cover/crust?	Yes No
	Is there lagoon aeration?	Yes No

Windbreak/Shelterbelt Establishment and Renovation (CPS 380)	Species category (select most common/extensive type if using more than one)	Coniferous trees Deciduous trees Shrubs
	Species density (number of trees planted per acre)	1-10,000

Appendix A: Climate-smart Agriculture and Forestry Practices

All NRCS Practice Standards (not limited to climate-smart practices)

309, Agrichemical Handling Facility
311, Alley Cropping
313, Waste Storage Facility
314, Brush Management
315, Herbaceous Weed Treatment
316, Animal Mortality Facility
317, Composting Facility
318, Short Term Storage of Animal Waste and By-Products
319, On-Farm Secondary Containment Facility
320, Irrigation Canal or Lateral
324, Deep Tillage
325, High Tunnel System
326, Clearing and Snagging
327, Conservation Cover
328, Conservation Crop Rotation
329, Residue and Tillage Management, No Till
330, Contour Farming
331, Contour Orchard and Other Perennial Crops
332, Contour Buffer Strips
333, Amending Soil Properties with Gypsum Products
334, Controlled Traffic Farming
336, Soil Carbon Amendment
338, Prescribed Burning
340, Cover Crop
342, Critical Area Planting
345, Residue and Tillage Management, Reduced Till
348, Dam, Diversion
350, Sediment Basin
351, Well Decommissioning
353, Monitoring Well
355, Groundwater Testing
356, Dike and Levee
359, Waste Treatment Lagoon
360, Waste Facility Closure
362, Diversion
366, Anaerobic Digester
367, Roofs and Covers
368, Emergency Animal Mortality Management
371, Air Filtration and Scrubbing
372, Combustion System Improvement
373, Dust Control on Unpaved Roads and Surfaces
374, Energy Efficient Agricultural Operation
375, Dust Management for Pen Surfaces
376, Field Operations Emissions Reduction
378, Pond
379, Forest Farming
380, Windbreak/Shelterbelt Establishment and Renovation
381, Silvopasture
382, Fence
383, Fuel Break
384, Woody Residue Treatment
386, Field Border
388, Irrigation Field Ditch
390, Riparian Herbaceous Cover
391, Riparian Forest Buffer
393, Filter Strip
394, Firebreak
395, Stream Habitat Improvement and Management
396, Aquatic Organism Passage
397, Aquaculture Pond
398, Fish Raceway or Tank
399, Fishpond Management
400, Bivalve Aquaculture Gear and Biofouling Control
402, Dam
410, Grade Stabilization Structure
412, Grassed Waterway
420, Wildlife Habitat Planting
422, Hedgerow Planting
423, Hillside Ditch
428, Irrigation Ditch Lining
428A, Irrigation Water Conveyance, Ditch and Canal Lining, Plain Concrete
428B, Irrigation Water Conveyance, Ditch and Canal Lining, Flexible Membrane
428C, Irrigation Water Conveyance, Ditch and Canal Lining, Galvanized Steel
430, Irrigation Pipeline
432, Dry Hydrant
436, Irrigation Reservoir
441, Irrigation System, Microirrigation
442, Sprinkler System
443, Irrigation System, Surface and Subsurface
447, Irrigation and Drainage Tailwater Recovery
449, Irrigation Water Management
450, Anionic Polyacrylamide (PAM) Application
453, Land Reclamation, Landslide Treatment
455, Land Reclamation, Toxic Discharge Control
457, Mine Shaft and Adit Closing
460, Land Clearing
462, Precision Land Forming and Smoothing
464, Irrigation Land Leveling
466, Land Smoothing
468, Lined Waterway or Outlet
472, Access Control
484, Mulching
490, Tree/Shrub Site Preparation
500, Obstruction Removal
511, Forage Harvest Management
512, Pasture and Hay Planting
516, Livestock Pipeline
520, Pond Sealing or Lining, Compacted Soil Treatment
521, Pond Sealing or Lining, Geomembrane or Geosynthetic Clay Liner
521A, Pond Sealing or Lining, Flexible Membrane
521B, Pond Sealing or Lining, Soil Dispersant
521C, Pond Sealing or Lining, Bentonite Sealant

521D, Pond Sealing or Lining, Compacted Clay Treatment
522, Pond Sealing or Lining - Concrete
527, Sinkhole Treatment
528, Prescribed Grazing
533, Pumping Plant
543, Land Reclamation, Abandoned Mined Land
544, Land Reclamation, Currently Mined Land
548, Grazing Land Mechanical Treatment
550, Range Planting
554, Drainage Water Management
555, Rock Wall Terrace
557, Row Arrangement
558, Roof Runoff Structure
560, Access Road
561, Heavy Use Area Protection
562, Recreation Area Improvement
566, Recreation Land Improvement and Protection
570, Stormwater Runoff Control
572, Spoil Disposal
574, Spring Development
575, Trails and Walkways
576, Livestock Shelter Structure
578, Stream Crossing
580, Streambank and Shoreline Protection
582, Open Channel
584, Channel Bed Stabilization
585, Stripcropping
587, Structure for Water Control
588, Crosswind Ridges
589, Cross Wind Trap Strips
590, Nutrient Management
591, Amendments for Treatment of Agricultural Waste
592, Feed Management
595, Pest Management Conservation System
600, Terrace
601, Vegetative Barrier
602, Equitable Relief
603, Herbaceous Wind Barriers
604, Saturated Buffer
605, Denitrifying Bioreactor
606, Subsurface Drain
607, Surface Drain, Field Ditch
608, Surface Drain, Main or Lateral
609, Surface Roughening
610, Salinity and Sodic Soil Management
612, Tree/Shrub Establishment
614, Watering Facility
620, Underground Outlet
629, Waste Treatment
630, Vertical Drain
632, Waste Separation Facility
633, Waste Recycling
634, Waste Transfer
635, Vegetated Treatment Area
636, Water Harvesting Catchment
638, Water and Sediment Control Basin
640, Waterspreading
642, Water Well
643, Restoration of Rare or Declining Natural Communities
644, Wetland Wildlife Habitat Management
645, Upland Wildlife Habitat Management
646, Shallow Water Development and Management
647, Early Successional Habitat Development-Mgt
649, Structures for Wildlife
650, Windbreak/Shelterbelt Renovation
654, Road/Trail/Landing Closure and Treatment
655, Forest Trails and Landings
656, Constructed Wetland
657, Wetland Restoration
658, Wetland Creation
659, Wetland Enhancement
660, Tree-Shrub Pruning
666, Forest Stand Improvement
670, Energy Efficient Lighting System
672, Energy Efficient Building Envelope
736, Crop By-Product Transfer, interim
724, Water Treatment Facility, interim
735, Waste Gasification Facility, interim
737, Reduced Water and Energy Coffee Conveyance System, interim
740, Pond Sealing and Lining, Soil Cement, interim
751, Individual Terrace, interim
753, Infiltration Ditch, interim
755, Well Plugging, interim
770, Livestock Confinement Facility, interim
775, Drainage Ditch Covering, interim
782, Phosphorus Removal System, interim
800, Controlling Existing Flowing Wells, interim
803, Water Well Disinfection, interim
805, Amending Soil Properties with Lime, interim
808, Soil Carbon Amendment, interim
809, Conservation Harvest Management, interim
810, Annual Forages for Grazing Systems, interim
812, Raised Beds, interim
815, Groundwater Recharge Basin or Trench, interim
817, On-Farm Recharge, interim
818, Water Conservation System, interim
821, Low Tunnel Systems, interim
823, Organic Management, interim

Other CSAF Practices
Traditional or cultural practices
Microbial products
Solar power generation
Grain bin construction
Pre-season drainage

Appendix B: Commodity List

CROPS
ALFALFA
ALMONDS
AMARANTH GRAIN
APPLES
APRICOTS
ARONIA (CHOKEBERRY)
ARTICHOKES
ASPARAGUS
ATEMOYA
AVOCADOS
BAMBOO SHOOTS
BANANAS
BARLEY
BEANS
BEETS
BIRDSFOOT/TREFOIL
BLUEBERRIES
BREADFRUIT
BROCCOFLOWER
BROCCOLI
BROCCOLINI
BRUSSEL SPROUTS
BUCKWHEAT
CABBAGE
CACAO
CACTUS
CAIMITO
CALABAZA MELON
CALALOO
CAMELINA
CANARY MELON
CANARY SEED
CANEBERRIES
CANISTEL
CANOLA
CANTALOUPES
CARAMBOLA (STAR FRUIT)
CARROTS
CASHEW
CASSAVA
CAULIFLOWER
CELERIAC
CELERY
CHERIMOYA
CHERRIES
CHESTNUTS
CHICORY/RADICCHIO
CHINESE BITTER MELON
CHRISTMAS TREES
CHUFAS
CINNAMON
CLOVER
COCONUTS
COFFEE
CORN
COTTON ELS
COTTON UPLAND
CRANBERRIES
CRENSHAW MELON
CRUSTACEAN
CUCUMBERS
CURRANTS
DASHEEN
DATES
DURIAN
EGGPLANT
EINKORN
ELDERBERRIES
EMMER
FIGS
FINFISH
FLAX
FLOWERS
FORAGE SOYBEAN/SORGHUM
GAILON
GARLIC
GENIP
GINGER
GINSENG
GOOSEBERRIES
GOURDS
GRAPEFRUIT
GRAPES
GRASS
GREENS
GROUND CHERRY
GUAMABANA/SOURSOP
GUAR
GUAVA
GUAVABERRY
GUAYULE
HAZEL NUTS
HEMP
HERBS
HESPERALOE
HONEY
HONEYBERRIES
HONEYDEW
HOPS
HORSERADISH
HUCKLEBERRIES
HYBRID POPLAR TREES
IDLE
INDIGO
ISRAEL MELONS
JACK FRUIT
JERUSALEM ARTICHOKES
JICAMA
JOJOBA
JUJUBE
JUNEBERRIES
KENAF
KHORASAN
KIWIBERRY
KIWIFRUIT
KOCHIA (PROSTRATA)
KOHLRABI
KOREAN GOLDEN MELON
KUMQUATS
LAMBS EAR
LEEKS
LEMONS
LENTILS
LESPEDEZA
LETTUCE
LIMES
LONGAN
LOQUATS
LYCHEE
MANGOS
MANGOSTEEN
MAPLE SAP
MAYHAW BERRIES
MEADOWFOAM
MILKWEED
MILLET
MIXED FORAGE
MOHAIR
MOLLUSK
MORINGA
MULBERRIES
MUSHROOMS
MUSTARD
NECTARINES
NIGER SEED
NONI
OATS
OKRA
OLIVES
ONIONS
ORANGES
PAPAYA

PARSNIP
PASSION FRUITS
PAWPAW
PEACHES
PEANUTS
PEARS
PEAS
PECANS
PENNYCRESS
PEPPERS
PERENNIAL PEANUTS
PERIQUE TOBACCO
PERSIMMONS
PINE NUTS
PINEAPPLE
PISTACHIOS
PITAYA/DRAGONFRUIT
PLANTAIN
PLUMCOTS
PLUMS
POMEGRANATES
POTATOES
POTATOES SWEET
PRUNES
PSYLLIUM
PUMMELO
PUMPKINS
QUINCES
QUINOA
RADISHES
RAISINS
RAMBUTAN
RAPESEED
RHUBARB
RICE
RICE SWEET
RICE WILD
RUTABAGA
RYE
SAFFLOWER
SAPODILLA
SAPOTE
SCALLIONS
SESAME
SHALLOTS
SORGHUM
SORGHUM DUAL PURPOSE
SORGHUM FORAGE
SOYBEANS
SPELT
SQUASH
STAR GOOSEBERRY
STRAWBERRIES
SUGAR BEETS
SUGARCANE
SUNFLOWERS
SUNN HEMP
TANGELOS
TANGERINES
TANGORS
TANGOS
TANNIER
TARO
TEA
TEFF
TI
TOBACCO CIGAR WRAPPER
TOBACCO BURLEY
TOBACCO BURLEY 31V
TOBACCO CIGAR BINDER
TOBACCO CIGAR FILLER
TOBACCO CIGAR FILLER BINDER
TOBACCO DARK AIR CURED
TOBACCO FIRE CURED
TOBACCO FLUE CURED
TOBACCO MARYLAND
TOBACCO VIRGINIA FIRE CURED
TOMATILLOS
TOMATOES
TREES TIMBER
TRITICALE
TRUFFLES
TURNIPS
VETCH
WALNUTS
WAMPEE
WASABI
WATERMELON
WAX JAMBOO FRUIT
WHEAT
WILLOW SHRUB
WINTER MELON
WOLFBERRY/GOJI
YAM

LIVESTOCK
ALPACAS
BEEF COWS
BEEFALO
BUFFALO OR BISON
CHICKENS (BROILERS)
CHICKENS (LAYERS)
DAIRY COWS
DEER
DUCKS
ELK
EMUS
EQUINE
GEESE
GOATS
HONEYBEES
LLAMAS
REINDEER
SHEEP
SWINE
TURKEYS

Partnerships for Climate-Smart Commodities Additional Specific Terms and Conditions February 2023

I. Overarching Statement

The following award terms and conditions are applicable to Partnerships for Climate-Smart Commodities agreements and are in addition to the USDA FPAC General Terms and Conditions. The award recipient must abide by all terms of this grant including, but not limited to, the General Terms and Conditions, the terms in the Funding Opportunity and associated Frequently Asked Questions, and this addendum. The recipient must also deliver on the planned objectives in the project narrative and budget narrative associated with this grant.

II. Eligibility and Highly Erodible Lands and Wetlands Compliance

In order to be eligible for an incentive payment as a part of the Partnerships for Climate-Smart Commodities, a producer must:

- Establish Farm Records with the Farm Service Agency (FSA) (have farm, tract, and field numbers in place);
- Complete an AD-2047 (Customer Data Worksheet to facilitate the collection of customer data for Business Partner Record);
- Certify highly erodible land conservation (HEL) and wetland conservation (WC) compliance via Form AD-1026, Highly Erodible Land Conservation (HELC) and Wetland Conservation (WC) Certification; and
- Certify that they are not a foreign person or entity.

Farm, tract, and field numbers are required for the producer, and ultimately the Partnerships for Climate-Smart Commodities recipient, to report climate-smart practice implementation to USDA, as well as to certify and maintain HELC/WC compliance. This will require that some producers who do not already have these numbers, like perennial crop growers or feedlots, establish these records with USDA's FSA. Farm, tract, field numbers, producer name, and Core Customer I.D. (CCID) will be provided by the recipient to the National Program Officer as a part of routine grant reporting. Recipients must ensure that producers receiving financial assistance or incentives through this project use the same name as is included in the relevant FSA Business File for that Farm ID in any contracts or similar documentation kept by the recipient.

Producers are not bound by the payment limitations and the adjusted gross income (AGI) limitations that are in place for other USDA programs.

In order to demonstrate HELC/WC compliance for Partnerships for Climate-Smart Commodities incentive payments, producers will need to request a copy of their subsidiary print from their

USDA FSA field office. The Subsidiary Print includes print year specific eligibility related information about a selected producer. The producer will then provide this documentation to the Partnerships for Climate-Smart Commodities recipients as proof of compliance. A current year subsidiary print will be required for each crop year that the producer receives a payment, and HELC/WC eligibility information is provided under the AD-1026 and Conservation Compliance sections of subsidiary (determined by year, which can change at any time during the year or in a subsequent year). As is the case already, field offices will not be expected to provide documentation to anyone besides the producer themselves (and must always comply with Section 1619 limitations if they ever do provide documentation to third parties). Producers must have control of the land for the term of their beneficiary contract.

Recipients are responsible for determining producer eligibility within the funding opportunity requirements. Recipients must inform producers of eligibility requirements and direct them to local USDA offices for requested information as necessary, including but not limited to, farm and tract establishment and Highly Erodible Land and Wetland Compliance determinations. Privacy of producers is a priority throughout this process, and recipients are responsible for maintaining producer privacy in the process.

At minimum, the recipient will collect and review subsidiary reports from participating producers. They will ensure that the producer is listed as "compliant" in all sections of the conservation compliance portion of subsidiary and "certified" for AD-1026 before an incentive payment is made. If payments to a producer span more than one Federal fiscal year, the recipient will review an updated subsidiary print each fiscal year to ensure that the status is still compliant.

III. Other Environmental and Cultural Resources Reviews

A Finding of No Significant Impact (FONSI) was signed by USDA NRCS on August 26, 2022. A copy of the Programmatic Environmental Assessment for Partnerships for Climate-Smart Commodities is available at www.usda.gov/climate-smart-commodities . USDA may determine that additional environmental and cultural resources review is needed for any particular action under Partnerships for Climate-Smart Commodities. The recipient must not execute any beneficiary contracts under this grant agreement prior to receipt of a letter from USDA that specifically details:

1) further procedures deemed appropriate by the Agency to ensure a completed National Environmental Policy Act (NEPA) review and all appropriate consultation requirements are met, and
2) additional instructions for any unanticipated discoveries or conditions.

A resolution of support is required for projects on Tribal lands from the governing body of the Tribe with jurisdiction over that land, if the applicant is not the Tribe nor an entity owned or

operated by that Tribe. USDA may approve alternative documentation for resolutions when USDA deems necessary and legally sufficient.

IV. Producer Benefits

USDA encourages the recipient to disclose to participating producers the manner and amount for which any market premiums derived from the development of the relevant climate-smart commodity will be shared between participating parties, including producers. USDA will be monitoring producer benefits, in particular those to small and underserved producers, throughout the grant period. Recipients agree that their project(s) will implement a plan for engaging small and underserved producers as laid out in this agreement.

V. Producer Data Protection and Disclosure

Recipients must ensure each producer has convenient access to any data collected from that producer or the producer's land and any associated modeling as part of the project. The recipient must provide each producer applying for benefits under this grant a description in writing of how their information, including but not limited to data about their farm and commodities, will be utilized, protected and shared as applicable.

VI. Other Data and Reporting Requirements

In addition to the reporting information provided in the statement of work and General Terms and Conditions, USDA will provide a template for the Detailed Progress Report, also known as the Partnerships for Climate-Smart Commodities (PSCS) Project Reporting Workbook. Within 30 calendar days of execution of this grant, a copy of this workbook will be posted at www.usda.gov/climate-smart-commodities or an alternative location provided to the recipient by the National Program Officer. USDA may provide updates to the PCSC Project Reporting Workbook or submission methods to streamline the data collection process and/or reduce the burden on the recipient throughout the grant period. Generally, these updates will be provided at least 3 months in advance of any required changes. The recipient must not transfer any data to foreign governments or foreign entities without prior approval from USDA.

USDA will provide a Technical Contact for this grant. The Technical Contact will have the responsibility of technical oversight for USDA for the project. The recipient is responsible for providing the technical assistance required to successfully implement and complete the project. The recipient must comply with any requests for information from the Technical Contact. The Technical Contact for this award is the National Program Officer assigned to this grant.

Prior to execution of this grant, the recipient must provide a shapefile depicting the project boundary for enrollment under this grant. Producer enrollment may not occur outside this boundary without modification of this grant.

Within 30 calendar days of execution of this grant, the recipient must provide to the National Program Officer a website address where enrollment information will be posted for producers for the project associated with this grant. Recipients will be responsible for the following reports:

- Submit quarterly performance reports that include a written progress report, as well as additional reporting on specific data elements contained in the most up-to-date version of the Partnerships for Climate-Smart Commodities Project Reporting Workbook. Additional information about each reported element is described in the Data Dictionary.
- Submit supplemental reports required to validate greenhouse gas (GHG) benefit data, including: (1) an initial project MMRV plan, (2) field-modeled GHG benefit reports, and (3) field-direct GHG measurement results, as applicable. Additional information about these reports is in included in the Data Dictionary.
- Submit copies of project outputs and deliverables (e.g., fact sheets, reports) as attachments in ezFedGrants along with quarterly performance reports.
- Report the version of COMET-Planner used to estimate GHG benefits of the project within each quarterly performance report. As COMET-Planner is updated, recipients must adopt the latest version of the tool as directed by USDA for use in performance reports.

Recipients must designate an individual as a member of the USDA Partnerships for Climate-Smart Commodities Learning Network (Partnerships Network); this representative should be identified in the Project Narrative for this grant. Each project includes a plan for up to two Partnerships Network virtual meetings and two in-person meetings a year during the project duration. Dates and other details on events will be posted at www.usda.gov/climate-smart-commodities or an alternative location provided to the recipient by the National Program Officer.

The Partnerships Network will be co-chaired by representative from the USDA Office of the Chief Economist and the Farm Production and Conservation Mission Area. The Partnerships Network will inform synthesis reports to be assembled by USDA on a range of topics related to the implementation of Partnerships for Climate-Smart Commodities projects, including:

- Lessons-learned as projects are implemented;
- Options for providing technical assistance;
- Procedures for measurement/quantification, monitoring, reporting, and verifying GHG benefits;
- Options for tracing climate-smart commodities through the supply chain;
- Mechanisms for reducing costs of implementation;
- A forum for discussion and learning regarding approaches to climate-smart agriculture and forestry implementation (including but not limited to deployment and

measurement/quantification, monitoring, reporting, tracking, and verification of associated greenhouse gas benefits and marketing of climate-smart commodities).
- Synthesis of outcomes; and
- Opportunities for USDA and others to inform future approaches to generating new and expanded markets for climate-smart commodities.

The Partnerships Network topics to be discussed will cover at minimum the areas described in previous FAQs and will evolve with USDA's ongoing project data analysis efforts and with input from the project recipients on the kinds of sessions that will be most helpful to them in building the diverse climate-smart markets associated with their projects. Participation may include at least one interview a year and include questions related to the following areas:

- Technical assistance approaches, methods, and successes and/or challenges
- Producer outreach approaches, methods, and successes and/or challenges
- Monitoring, measurement, reporting, and verification (MMRV) approaches, methods, and successes and/or challenges
- Marketing approaches, methods, and successes and/or challenges
- Partnership approaches, methods, and successes and/or challenges
- Data collection and storage approaches, methods, and successes and/or challenges
- Supply chain approaches, methods and successes and/or challenges, including approaches to traceability
- Supply chain benefits and demand for climate-smart commodities
- Perspectives on program design, climate-smart commodity definitions, and future approaches or opportunities
- Project successes and stories

USDA may also request producer exit reports at a later date. Additional marketing and branding-related requirements may be provided by USDA, including signage related to Partnerships for Climate-Smart Commodities.

VII. Competition and Anti-Competitive Practices

In connection with this grant, recipients may not prohibit or otherwise limit a producer from changing the provider of other services or materials not included as part of this grant. Recipients may not condition, limit, steer, or discriminate in their provision or sale of non-project business functions or products to producers based on their participation or non-participation in or use of any services provided as part of this grant. Additionally, funds in this agreement shall not be used for purposes or activities related to mergers or acquisitions.

VIII. Suspension and Disbarment

The provisions governing Suspension and Disbarment in subsection 1.a.8 shall also apply to fraud, embezzlement, theft, forgery, bribery, falsification, or destruction of records, making false statements, or violations of the Federal civil antitrust or unfair trade practice laws.

IX. Special provisions for awards to for-profit entities as recipients

This section contains provisions that apply to awards to for-profit entities. These provisions are in addition to other applicable provisions of these terms and conditions, or they make exceptions from other provisions of the terms and conditions for awards to for-profit entities. For-profit entities that receive awards have two options regarding audits:

1) A financial related audit of a particular award in accordance with Generally Accepted Government Auditing Standards issued by the Comptroller General of the United States, in those cases where the for-profit entity receives awards under only one USDA program; or, if awards are received under multiple USDA programs, a financial related audit of all awards in accordance with Generally Accepted Government Auditing Standards issued by the Comptroller General of the United States; or

2) An audit that meets the requirements contained in 2 CFR 200 subpart F.

For-profit entities that receive annual awards totaling less than the audit requirement threshold in 2 CFR 200 subpart F are exempt from USDA audit requirements for that year, but records must be available for review by appropriate officials of Federal agencies or the Government Accountability Office.

X. Non-Disparagement

Recipients may not engage in any advertising deemed by USDA as disparaging to another agricultural commodity or competing product, or in violation of the prohibition against false and misleading advertising. Disparagement is defined as anything that depicts other commodities in a negative or unpleasant light via overt or subjective video, photography, or statements. Comparative advertising is allowable, provided the presentation of facts is truthful, objective, not misleading, and supported by a reasonable basis.