U.S. Department of Agriculture
Natural Resources Conservation Service

NOTICE OF GRANT AND AGREEMENT AWARD

1. Award Identifying Number NR233A750004G031	2. Amendment Number	3. Award /Project Period Date of final signature - 09/13/2027	4. Type of award instrument: 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	COOPERATIVE LEAGUE OF THE UNITED STATES OF AMERICA (THE) 1775 I ST NW FL 8 WASHINGTON DC 20006-2402 UEI Number / DUNS Number: WQJQAFFKMRE7 / 074825878

7. NRCS Program Contact	8. NRCS Administrative Contact	9. Recipient Program Contact	10. Recipient Administrative Contact
Name: ECHO DOMINGUES	Name: SUNDII JOHNSON	Name: MARCUS LAWS	Name: JOSE MOLINA
(b)(6)			

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

15. Project Title/ Description: Expands markets for climate-smart arabica coffee, and also shade, hardwood, and citrus in Puerto Rico and supports farmer implementation and monitoring of climate-smart practices.

16. Entity Type:

17. Select Funding Type

Select funding type:	☒ Federal	☒ Non-Federal
Original funds total	14,999,997.000	$649,500.00
Additional funds total	$0.00	$0.00
Grand total	14,999,997.000	$649,500.00

18. Approved Budget

Personnel	$1,548,839.00	Fringe Benefits	$716,435.00
Travel	$209,928.00	Equipment	$0.00
Supplies	$38,620.00	Contractual	$360,741.00
Construction	$0.00	Other	12,125,434.000
Total Direct Cost	12,645,583.000	Total Indirect Cost	$2,354,414.00
		Total Non-Federal Funds	$649,500.00
		Total Federal Funds Awarded	14,999,997.000
		Total Approved Budget	15,649,497.000

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 KATINA HANSON Acting Senior Advisor for Climate-Smart Commodities	Signature KATINA HANSON	Digitally signed by KATINA HANSON Date: 2023.04.19 15:51:25 -05'00'	Date
Name and Title of Authorized Recipient Representative VALERIA R. ROACH Executive Vice President & Chief Financial Officer	Signature Valeria Roach	Digitally signed by Valeria Roach Date: 2023.04.19 13:14:08 -04'00'	Date April 19, 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 Cooperative League of the United States of America (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 $ 15,649,496.89

TOTAL FEDERAL FUNDS $ 14,999,996.89
PERSONNEL $ 1,012,511.38
FRINGE BENEFITS $468,350.42
TRAVEL $137,234.51
EQUIPMENT $0
SUPPLIES $28,488.61
CONTRACTUAL $247,632.92
CONSTRUCTION (usually n/a) $n/a
OTHER $10,751,364.70 (includes PRODUCER INCENTIVES $5,000,000)
TOTAL DIRECT COSTS $12,645,582.54
INDIRECT COSTS $2,354,414.35

TOTAL NON-FEDERAL FUNDS $649,500.00
PERSONNEL $0
FRINGE BENEFITS $0
TRAVEL $0
EQUIPMENT $0
SUPPLIES $0
CONTRACTUAL $0
CONSTRUCTION (usually n/a) $n/a
OTHER $ $649,500.00
PRODUCER INCENTIVES $0
TOTAL DIRECT COSTS $649,500.00
INDIRECT COSTS $0

Recipient has an approved Negotiated Indirect Cost Rate Agreement (NICRA) with a rate of 42.57 percent on fringe, 30.41 percent on overhead, and 22.56 percent on grant administration.
Base of Application
(a) Total labor costs of US and third country national employees
(b) Total direct costs excluding equipment, nonexpendable property, subcontracts and subgrants, revolving loan and credit guarantee funds, and in-country training
(c) Total direct costs for contracts and grants administered by grant administration departments

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

Link to GT&C

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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I. Executive Summary of Pilot Project

A. Contact Information

M. Alexandre Serrano, Senior Vice-President
National Cooperative Business Association (NCBA CLUSA) 1775
Street NW, 8th Floor, Washington, DC 20006
(202) 383-5476 (office)
(202) 390-9444 (mobile)
ASerrano@ncba.coop

B. Introduction

NCBA CLUSA is pleased to submit this proposal for the USDA Natural Resources Conservation Service (NRCS) Partnerships for Climate-Smart Commodities funding opportunity. NCBA CLUSA will lead a consortium of cooperatives, farmer organizations, and minority serving institutions in Puerto Rico (PR) to pilot a project that provides technical and financial assistance to 2,000 underserved Puerto Rican farmers to voluntarily adopt climate-smart agriculture and forestry (CSAF) practices that meet NRCS practice standards in the production of climate-smart commodities (CSCs), primarily Rust/Climate Change Resistant varietals of arabica coffee, but also shade, hardwood, and citrus on 10,000 acres of land.

The cooperative business model has long been a central strategy for farmers – especially smaller and marginalized farmers – to capture value from their production and solve production problems. In the U.S., 1.8 million farmers are members of 1,744 cooperatives and farm cooperatives generate about $8.4 billion in net income each year.[1] In this context, taking CSAF to scale will require solutions that leverage cooperative businesses' unique business structure to ensure farmers own, control, and benefit from their businesses.

NCBA CLUSA is the apex non-profit cooperative development and trade association in the U.S., with 249 cooperative members in multiple sectors, including farm supply, agricultural production, processing and marketing, financial services, and retail food. Every year, we provide technical assistance, financial assistance, Monitoring and Evaluation (M&E), and oversight that enables 200,000 farmers worldwide to adopt CSAF practices. Our position as the umbrella organization for cooperative business and our capacity to manage agricultural projects at scale makes NCBA CLUSA uniquely suited to contribute to USDA NRCS's Partnerships for Climate- Smart Commodities. We will develop models for scaling voluntary CSAF practice adoption that specifically meet NRCS practice standards verified through engagement with the NRCS Field Office and the NRCS Climate Smart Agriculture & Forestry (CSAF) Mitigation Activities list FY2023. In doing so, NCBA CLUSA will assist local partners such as PROCAFÉ, UPR-AES, and farmer organizations in building markets for climate-smart commodities produced by historically underserved farmers that will serve as an example for expanding the model to other parts of the U.S.

This pilot project will enable Puerto Rican producers to generate quantified and verified outcomes

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[1] USDA, *Agricultural Cooperative Statistics Summary,* https://content.govdelivery.com/accounts/USDARD/bulletins/300bab5

for CSCs and track them through the supply chain so that producers and cooperatives can access new, profitable market opportunities. Through ongoing NCBA CLUSA technical assistance and individual farm visits provided through PROCAFÉ and UPR-AES technical staff trained in NRCS compliant practice standards, the project will ensure that implementation of the practices meets NRCS standards. Cooperative financial institution partners will offer services to participating producers. NCBA CLUSA's cooperative grocer and marketing partners will build markets for CSCs PR farmers increase the quality of their products and traceability and standards rise across these value chains. NCBA CLUSA will support PROCAFÉ in helping PR farmers grow and market higher quality products that meet market demand while increasing farmer climate resilience and reducing greenhouse gas emissions (GHGs). Finally, the market ecosystem we create for participating cooperative businesses and support organizations will allow them to continue to help farmers implement CSAFs beyond the life of the project for the expansion of CSCs.

C. List of Partners

NCBA CLUSA has assembled a robust group of cooperatives, farmer organizations, and minority-serving institutions who together represent and serve significant numbers of cooperatives and producers in the U.S. territory of Puerto Rico. Our subrecipient partners include:
- Productores de Café de Puerto Rico (PROCAFÉ)
- University of Puerto Rico – Agricultural Experiment Station (UPR-AES)
- SustainCERT
- La Liga de Cooperativas de Puerto Rico (La Liga)

NCBA CLUSA will also seek to engage the following actors:

- Caribbean Regenerative Community Development, Inc.'s project Sustainable Market Approaches for Regenerating Territories with Agricultural Goods in Puerto Rico
- Fondo de Inversión y Desarrollo Cooperativo (Fidecoop)
- Puerto Rico Farmers Association (PRFA)
- National Co+op Grocers (NCG)
- Hispanic Federation
- TechnoServe
- Nespresso

D. List of Underserved/Minority Focused Partners

Productores de Café de Puerto Rico (PROCAFÉ) is a non-profit member-owned farmer organization representing more than 600 coffee growers in PR while serving the island's entire coffee sector and recently nominated by the Hispanic Federation and TechnoServe to lead the PR Coffee Task Force to identify sectoral priorities and leverage resources. La Liga de Cooperativas de Puerto Rico (La Liga) is the main trade association representing all types of cooperatives in PR. The Puerto Rico Farmers Association (PRFA), the PR farm bureau, represents thousands of farmers in PR from all agricultural sectors. Fidecoop is a venture capital cooperative organization that provides financial services to cooperatives in PR. The University of Puerto Rico (UPR) is a minority-serving institution and the oldest and largest higher learning institution in the Caribbean.

E. Compelling Need for the Project

NCBA CLUSA USDA NRCS CSC Proposal Narrative – Puerto Rico
No. USDA-NRCS-COMM-22-NOFO0001139   March 7, 2023

Estimated greenhouse gas (GHG) emissions from agricultural production accounts for 10% of the total U.S. emissions driving climate change.[2] Climate change poses enormous risks and challenges to farmers in the continental U.S. and its territories, including: extreme precipitation; heat waves; increased stress on livestock and plants; movement of crop growing regions; intensification of weed, pest, and disease pressure; impacts on crop yields; and adverse health effects for farmers and workers.[3]

Adaptation to and mitigation of climate changes towards enhanced farm resiliency will be key for farms to endure the effects of climate change over the next few decades. However, not all communities have equal access to resources, and without sufficient support, it is challenging for small farmers and underserved agricultural producers to adapt their businesses and livelihoods to the changing climate.

PR faces unique challenges compared to the U.S. mainland. 43% of Puerto Rico's 2.7 million inhabitants live at or below the poverty line, compared to the U.S. national poverty rate of 13 percent.[4] As a U.S. territory, PR is often denied access to the same federal funding resources as the 50 states.[5]

As a Caribbean Island, PR is particularly susceptible to more severe hurricanes. In September 2017, two Category 5 hurricanes, Irma and Maria, devastated PR and on September 23 of this year, Hurricane Fiona collapsed the island's power grid with more than 20 inches of rain and an estimated 20% loss of the coffee harvest. These hurricanes destroyed more than twenty-two million trees on the island, including 70% of farmers' coffee and shade trees.[6] PR currently relies on imports for 85% of its food supply, and less than six percent of its land is arable (compared to 17% for the entire U.S), making food security and self-reliance extremely challenging.[7][8] Farmers living in poverty often must balance growing commodities for cash and food crops to feed their families and communities. Adding to these challenges, outmigration has created farm labor shortages, worsening coffee production inefficiencies.[9] The island's relative isolation increases barriers to securing resources to rebuild and thrive. A four-day, island-wide power outage in April 2022 and the aftermath of Hurricane Fiona highlights that the island's infrastructure remains fragile.[10]

In recent years, the destruction of farms and crops by extreme weather, the rising costs of fuel and inputs, the need to adapt to climate change, and the challenges of isolation have inspired some Puerto Rican farmers to adopt agroecological production strategies.[11] NCBA CLUSA will seek to collaborate with Nespresso, TechnoServe, and the Hispanic Federation among other actors that have been promoting similar agronomic and regenerative agriculture practices since 2017 to leverage resources to reach more farmers and acreage under CSAF practices as well as avoid the

[2] https://www.epa.gov/ghgemissions/sources-greenhouse-gas-emissions#agriculture
[3] https://www.usda.gov/sites/default/files/documents/climate_indicators_for_agriculture.pdf
[4] https://borgenproject.org/poverty-in-puerto-rico/
[5] https://www.cnn.com/2022/04/21/politics/puerto-rico-supreme-court-federal-disability-benefits/index.html
[6] https://www.nass.usda.gov/Publications/AgCensus/2017/Full_Report/Outlying_Areas/Puerto_Rico/prv1.pdf, page 111
[7] https://nifa.usda.gov/ uerto-ricos-secretary-agriculture-visits-nifa-addresses-food-security-issues
[8] https://data.worldbank.org/indicator/AG.LND.ARBL.ZS
[9] https://www.census.gov/library/stories/state-by-state/puerto-rico-population-change-between-census-decade.html
[10] https://abcnews.go.com/International/wireStory/ uerto-rico-struggles-emerge-outage-anger-builds-83960706
[11] https://www.theguardian.com/environment/2021/dec/23/puerto-rico-agroecology-farmers

duplication of technical assistance. These actors report that the application of climate-smart production practices has led the 2022 harvest to reach pre-hurricane levels[12], a strong indicator that farmers welcome these practices. NCBA CLUSA will seek to collaborate with these actors and leverage their successes. Producers, scientists, and institutions have identified a simple set of soil care principles which, when applied to agricultural practices, can not only reduce GHG emissions from agricultural production, but draw carbon and nitrogen out of the atmosphere and sequester it in the soil. In addition to climate benefits, studies provide evidence that CSAF practices build soil organic matter, increase soil fertility, reduce the costs of fertilizer and inputs, reduce soil erosion and runoff, improve water infiltration, improve crop nutrition, improve resilience from extreme weather, improve yields, and provide higher returns on investment.[13][14]

Our pilot project will address these challenges by providing technical and financial assistance to farmers in the adoption of CSAF practices and developing markets for CSC. We will improve the return on investment for farmers adopting CSAF practices and help them to access high quality planting materials and inputs which will increase farm productivity while reducing costs through the more efficient use of inputs and water, and soil quality, and more efficient land management. Since this proposal was originally designed to respond primarily to the impacts on the coffee orchards and, to a lesser extent, citrus and plantain orchards from Hurricanes Irma and María, the overall design and objective of the project does not require additional changes or implications related to the impact of Hurricane Fiona. Nevertheless, such disasters highlight the need and urgency for increasing farmers' access to in-kind quality planting materials and technical assistance that increases their capacity to absorb climate shocks, improve soil health and boost market returns.

F. Approach to Minimizing Transaction Costs

Each year, NCBA CLUSA supports one million farmers worldwide through the implementation of projects focused on improving agricultural practices and advancing livelihoods and supports 200,000 of these farmers to adopt CSAF practices. NCBA CLUSA accomplishes this through an extensive infrastructure of project management, finance, and compliance staff and systems. Additionally, our approach is to seek local partners to strengthen capacities and provide TA, ensuring sustainability of project activities and minimizing long-term transaction costs. This approach allows us to achieve economies of scale and create efficiencies in project delivery, strengthen partner capacity, and manage farm financial assistance when working with thousands of historically underserved farmers.

NCBA CLUSA will employ a small local team to manage this pilot project, backstopped by an experienced NCBA CLUSA seasoned Project Lead Administrator with extensive USDA Food for Progress project management experience as well as technical experience relevant to organic input production and coffee value chain development. NCBA CLUSA, through specialized Organic Input and Farmer Field School consultants, will facilitate Training of Trainers (ToT) workshops with project technical staff, including PROCAFÉ and UPR-AES staff located in Adjuntas, on the farmer field school methodology, NRCS practice standards, and promoting business solutions for the local production of non-synthetic and imported climate-smart inputs and practices. NCBA

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[12] https://www.gcrmag.com/nespresso-restores-puerto-ricos-coffee-harvest-to-pre-hurricane-levels/
[13] https://www.academia.edu/59816653/Abating_Climate_Change_and_Feeding_the_World_Through_Soil_Carbon_Sequestration
[14] https://peerj.com/articles/12848/

CLUSA and PROCAFÉ will adapt existing curriculum, training materials already available in Spanish, and proven technologies (e.g., low-cost climate-smart coffee production systems developed in Central America) for promoting NRCS compliant CSAF practice standards within the coffee value chain in PR to reduce costs and accelerate the start-up of project activities. NCBA CLUSA will provide all CSAF farm-level activities and technical assistance through PROCAFÉ using their existing networks of farmer groups, lead farmers, and qualified staff. NCBA CLUSA will strengthen PROCAFÉ's capacity in project management and ensure the quality and delivery of technical and financial assistance to Puerto Rican farmers. NCBA CLUSA, through partner La Liga and support organization PRFA, will use their networks and effective social media outreach to enroll farmers and farmer groups in the project as well as facilitate market connections with local coffee buyers such as PR Co-op grocers and others. Additionally, through La Liga, NCBA CLUSA will provide cooperative development services to nascent farmer cooperatives, associations, and groups to ensure the sustainability of project activities as well as assist farmers to access markets and reduce production costs. NCBA CLUSA through UPR's College of Agricultural Sciences leveraging its Experimental Agriculture & Coffee Research Station in Adjuntas, will support the project and PROCAFÉ with day-to-day measurement, quantification, monitoring of GHG emissions and climate benefit data collection and analysis for participating producers in PR. NCBA CLUSA through SustainCert and the UPR-AES will strengthen PROCAFÉ capacity to support GHG traceability and verification systems as well as adherence to NRCS standards with farmers and farmer groups.

G. Approach to Reducing Producer Barriers to Implement CSAF Practices

There are several barriers to the adoption of CSAF practices. The Puerto Rican coffee farms that the project will target are less than 20 acres on average, which limits the revenue available and heightens the risk of adopting conservation innovations. The learning curve for small operations is just as steep as it is for larger operations, even though access to scale-appropriate technology is more limited and there are fewer private sector service providers. The technical assistance capacity currently available is inadequate for widescale adoption, and financial assistance needs to be targeted to the specific on-the-ground needs and best options for these farmers. Farmers must plan for a one- to three-year transition period as operations and soil ecosystems adapt.
Thus, farmers need access to quality inputs, financial incentives and marketing support to mitigate the risk of adopting new practices.

Our approach to reducing the barriers to implement CSAF practices is threefold: 1) all producer stakeholders – e.g., farmers, farm workers, agronomists, and field staff – will have access to CSAF practices training and PROCAFE manuals that meet NRCS standards detailed in the Caribbean Area Field Office Technical Guide and NRCS's Climate-Smart Agriculture and Forestry (CSAF) Mitigation Activities List FY2023, peer and expert technical assistance, and support to plan and experiment as they adopt CSAF practices; 2) a package of financial assistance will defray the initial costs of adopting CSAF practices and encourage innovation, and this package will include cost share, high quality planting material, and financial incentives; 3) Our Marketing plan will: 1) ensure commercial partnerships increase product quality, standards and access to markets for CSC including engaging the Puerto Rico Farm Bureau's to develop and promote a voluntary "100% Puerto Rican Climate-Smart Coffee" seal as well as promote with NCBA CLUSA members such as the National Co+op Grocers (NCG), and local buyers such as Agro-Comercial and consumer cooperatives as well as participate in industry trade fairs and other relevant activities; 2) improve traceability systems; 3) estimate the economic benefits to producers; and 4) collect data on post-

project potential for scaling commercial ventures, operations and sales to inform future USDA climate-smart commodity work.

Geographic Focus

NCBA CLUSA CSC project activities will take place in the U.S. territory of Puerto Rico. Within Puerto Rico, we will concentrate project activities in ten municipalities of the Central Zone (contiguous among themselves), which fall in four agricultural regions:

The **Utuado Region**: Adjuntas, Ciales, Jayuya and Utuado; The **Lares Region**: Lares, Las Marías, Maricao and San Sebastián; The **San Germán Region**: Yauco; and the **Naranjito Region**: Orocovis.

H. Partner Project Management Capacity

NCBA CLUSA designs and implements agricultural development programs in the U.S. and around the world that provide services – including climate adaptation and mitigation, agricultural productivity and trade (including improving marketing and access to new markets), cooperative development, and resilience – to one million agricultural producers, including 200,000 producers engaged in CSAF practices, every year. In 2021, NCBA CLUSA managed a portfolio of $150 million in programs, including three USDA projects and multiple partner sub-awards. Over the last ten years NCBA CLUSA has managed 100 sub-awards totaling $40 million. NCBA CLUSA also has extensive experience establishing and managing grant and enterprise development funds like the CSAF financial assistance (cost share) fund proposed under this project. NCBA CLUSA has U.S. government approved grant templates and a grant manual that is easily adapted to specific contexts and awards. We have the financial systems to support grant management and database experience to process, issue, track, and close out these types of assistance. Over the last five years NCBA CLUSA managed over $20 million in direct financial assistance grant funds. NCBA CLUSA also has significant experience enrolling farmers and cooperatives, and tracking, monitoring, and reporting project activities, outputs, and outcomes.

> NCBA CLUSA's success in the Coffee Stabilization and Agricultural Diversification Project funded by USDA in El Salvador stands as an example of the economic benefits we have created for farmers. Our Climate-Smart, Low-Cost Production System increased coffee yields by 140% (2.7 bags/hectare to 6.5 bags/hectare) for 7,500 farmers in Central America as well as reduced production costs by 30-60%. As a result of our efforts to establish a global network of linkages between farmer groups & local markets, exporters and international buyers, farmers earned $94.8 million in coffee sales, plus $3.77 million in sales of diversified crops.

PROCAFÉ, a subawardee partner, is a non-profit association of coffee producers in PR incorporated in 2019. The organization is member run, with members from every link in the coffee value chain, e.g., growers, processors, aggregators, roasters, and retailers. PROCAFÉ has 600 members who

employ 1,200 farm workers and an additional 1,800 seasonal workers during the September-to-March harvest season. Over the last three years PROCAFÉ implemented three agricultural development projects: the Hispanic Federation-funded *Revive el Cafetal Puertorriqueño* project, which distributed two million seedlings to 1,139 farmers, provided technical assistance, and supported farmers to complete applications and digital data entry; *Proyecto Para la Montaña* with support from ConPRmetidos, which distributed 750,000 coffee seedlings, fertilizers, provided training and a best practices manual to 500 farmers; and *Plátanos para la Montaña* with ConPRmetidos, which distributed 78,400 plantain seedlings, and organic fertilizers and pesticides to 100 farmers.

UPR's College of Agricultural Sciences, a subawardee partner, has extensive experience promoting and monitoring programs in tropical agriculture that safeguard the sustainability of food production and the conservation of the environment while improving the quality of life and conserving natural resources in PR and the Caribbean. UPR's College of Agricultural Sciences, as a land grant college institution, integrates in a single unit: the Faculty of Agricultural Sciences, the Agricultural Experimental Station (AES) and the Agricultural Extension Service under the direction of the Dean and Director. This administrative and programmatic structure allows the integration of teaching, research, and extension within the daily activities of UPR.

SustainCERT, a subawardee partner, is a technology-driven verification and certification company that helps businesses and investors efficiently and credibly quantify the impacts from a wide range of sustainability programs and investments, including corporate supply chain interventions in farming communities. SustainCERT is an official certification company for the Gold Standard, a globally recognized standards body for climate and Sustainable Development Goal (SDG) impact assessment.

La Liga de Cooperativas de Puerto Rico, a subawardee partner, is an organization that has worked for 74 years representing, defending, and promoting cooperatives in Puerto Rico. They provide programs and services to all PR cooperatives. An educational department promotes research to meet and find solutions for affiliates' needs. La Liga provides outreach and impacts to the whole island through its organizational structures and, also, gathers the cooperatives by their sector. Agriculture is one of the areas that Puerto Rico needs to reinforce to achieve food security. La Liga is committed to the Sustainable Development Goals (SDGs), adopted by the United Nations in 2015.

II. Plan to Pilot Climate-Smart Agriculture and/or Forestry Practices on a Large Scale

A. Description of CSAF Practices

For perennial cropping systems, such as coffee, the relative lack of soil disturbance and the range of available climate-smart practices offer substantial opportunities to sequester carbon and build soils. In PR, the 2017 storms Irma and Maria destroyed an estimated 22.8 million trees – including 70% of farmers' coffee and shade trees – and caused 40,000 landslides in the island. [15][16] Hurricane Fiona in September 2022 deluged the island with reports of up to 30 inches of rain and landslides that devastated agricultural production. NCBA CLUSA's CSC project will use climate-smart

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[15] https://www.nass.usda.gov/Publications/AgCensus/2017/Full_Report/Outlying_Areas/Puerto_Rico/prv1.pdf, page 111

[16] https://www.usgs.gov/supplemental-appropriations-for-disaster-recovery-activities/landslides-triggered-hurricane-maria

agroforestry practices as an integral mechanism for renovating and re-establishing critical coffee plantings, achieving climate benefits, and meeting other resource conservation needs.

The adoption of climate-smart agroforestry practices offers substantial benefits from increased soil carbon and soil health. Increased infiltration and water holding capacity can improve fertility, reduce nutrient loss, and increase drought resilience. Those benefits result in reduced input costs, greater productivity in the face of climate impacts, and long-term return on investment and farm viability. NCBA CLUSA and PROCAFÉ will develop specifications for the practices with the support of UPR-AES experts & extension staff in consultation with NRCS, and conservation district experts that are compliant and verifiable with NRCS conservation practice standards. Ensuring the implementation of the practices meet NRCS standards will be criteria for grant payments verified through PROCAFE and UPR monitoring and evaluation services. NCBA CLUSA, through PROCAFÉ field staff, will be responsible for verifying the implementation of the practices as part of their services and UPR the measurement, monitoring and quantification of the GHG emissions.

NCBA CLUSA proposes implementing practices on land that is only currently used for agricultural production and does not involve concentrated animal feeding operations (CAFOs). The primary climate-smart practice will be the use of a polyculture **Multi-Story Cropping** systems which fall under NRCS's CSAF Agroforestry, Forestry and Upland Wildlife Habitat Climate Change Mitigation Practice Categories[17]. Recent studies have found that these systems have lower carbon footprints and much higher carbon stocks in the vegetation than unshaded monocultures.[18]/[19] In PR, coffee was traditionally grown as an understory plant, however producers began to intensify their production in the 1970s and 1980s, removing overstory trees and growing monoculture coffee unshaded in full sun. Due to climate change and market demand, more sustainable and premium coffees have expanded in recent years, which has increased farmer interest in shifting back to shade-grown coffee in addition to added climate resilience.

Adoption of the Multi-Story Cropping system will help 2,000 underserved Puerto Rican coffee farmers build back their farms. Through NCBA CLUSA, farmers will receive and replant approximately 2.75 million trees including 2.6 million shade-variety coffee trees in a Multi-Story Cropping system. Whereas the lifespan of a full-sun variety of coffee tree is 6 to 8 years, shade-grown coffee trees can live 18 to 24 years, reducing the loss of soil carbon when replacing and renovating trees, and reducing inputs and the other costs of replacing orchards.[20] Farmers will also receive and plant approximately one hundred and fifty thousand other tree varietals, including shade and other non-coffee trees, to respond to farmers' expressed desire to restore the diverse crop systems their farms had before the hurricanes, both to feed their families and to generate additional sources of revenue. These trees will include perennial crops, including citrus, plantains, bananas, cacao, and hardwoods for lumber. Since the project will be distributing approximately 2.75 million trees, equivalent to 13% of the tree loss from Hurricanes Maria & Irma, the proper site preparation for this quantity of trees will involve limited ground disturbance potentially below the plow line.

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[17] Natural Resources Conservation Service, Climate-Smart Agriculture and Forestry (CSAF) Mitigation Activities List [1] FY2023
[18] Henk Rikxoort, Götz Schroth, Peter Läderach, Beatriz Rodríguez-Sánchez. Carbon footprints and carbon stocks reveal climate-friendly coffee production. Agronomy for Sustainable Development, Springer Verlag/EDP Sciences/INRA, 2014, 34 (4), pp.887-897. ff10.1007/s13593-014-0223-8ff. ffhal-01234838f
[19] Specialty Coffee Association (SCA) "", 2022
[20] Carbon Farming Handbook, Eric Toensmeier, 2016, page 101.

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In addition, the NCBA CLUSA and PROCAFÉ will support farmers with the adoption of the following **Climate-Smart Agriculture and Forestry (CSAF) Mitigation Practices** detailed in NRCS Climate-Smart Agriculture and Forestry (CSAF) Mitigation Activities List FY2023. Although low-till or no-till management will be encouraged by the project but not evaluated for incentive payment eligibility, many of the standard conservation practices such as windbreaks and tree/shrub preparation will require minimal ground disturbance. The final selection of the practices will vary from farm to farm based on on-the-ground circumstances as determined by participating producers with technical assistance from NCBA CLUSA, through PROCAFÉ staff.

The set of **Climate-Smart Agriculture & Forestry Standard Practices** that will be adopted on 10,000 acres of land include those listed below in Table 1-CSC Practice Standards for Adoption:

Table 1 – CSC Practice Standards for Adoption

#	Conservation Practice Standard Name*	Code
1	Climate Smart Advanced Soil Health	B000CPL25
2	Conservation Cover	327
3	Conservation Crop Rotation	328
4	Contour Buffer Strips	332
5	Cover Crop	340
6	Field Borders	386
7	Mulching	484
8	Vegetative Barriers	601
9	Alley cropping	311
10	Critical Area Planting	342
11	Multistory Cropping/Forest Farming	379
12	Windbreaks/shelterbelt Establishment and Renovation	380
13	Riparian Forest Buffers	391
14	Hedgerow Planting	422
15	Tree/Shrub Establishment	612
16	Nutrient Management	590
17	Upland Wildlife Habitat Management	645
18	Forest Stand Improvement	666

*Source: Natural Resources Conservation Service - Climate-Smart Agriculture and Forestry (CSAF) Mitigation Activities List [1] FY2023

This set of practices will provide the means for coffee farmers to increase soil health and biomass carbon stocks; limit soil-disturbing activities that improve soil carbon retention and minimizes carbon emissions from soil; more precisely manage the amount, source, timing, placement, and form of nutrient and soil amendments and reduce N_2O emissions to the atmosphere; and increase net carbon storage in woody biomass and soils. NCBA CLUSA does not propose implementing any practices that involve ground disturbance below the plow zone other than tree planting.

B. Plan to Recruit Producers and Landowners, Including Estimated Scale of the Project

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Farmers will be initially identified and recruited by NCBA CLUSA through PROCAFÉ's detailed database of 1,500 coffee producers, including 600 of PROCAFÉ's members. The project will also collaborate with the Cooperativa Agro-Comercial, which has 568 coffee producers, to identify and recruit their coffee farmers to participate in the project. Support partners, La Liga and PRFA, will act as outreach partners, leading a campaign to promote voluntary participation among producer cooperatives and their farmers in this pilot project.

NCBA CLUSA will recruit an initial cohort in Year 1 consisting of 350 farmers through PROCAFÉ and support partners' outreach efforts. By demonstrating success in this initial phase of the pilot project and through ongoing outreach efforts, NCBA CLUSA and PROCAFÉ will attract subsequent cohorts of interested coops and farmers for a second round of CSAF training, implementation, and assessment starting in Year 2. Early adopters, successful farmers, will become mentors to each additional round of farmers looking to adopt CSAF practices.

The outreach partners will effectively communicate to cooperatives the benefits and responsibilities that cooperatives, farmers, and field staff can expect while participating in the pilot project. NCBA CLUSA and PROCAFÉ will also design a farmer support package that includes technical assistance, financial assistance, trees, seeds, organic fertilizer, and verification of GHG benefits. NCBA CLUSA in partnership with PROCAFÉ, La Liga, and PRFA will then conduct outreach and promotion to recruit producer cooperatives interested in participating in this pilot project from their respective networks. Interested farmer cooperatives that have agreed to participate will in turn support additional outreach to recruit farmers. To help overcome barriers to participation, outreach partners will provide staff to assist farmers in filling out applications and providing the documentation necessary for project participation and to receive financial assistance.

Several agricultural producer organizations in PR have already expressed interest in participating in this project, including those that support coffee (*Agro-Comercial*), citrus (*Productores de la Montaña de Cítricos*), and annual crop farmers.

C. Plan to Provide Technical Assistance, Outreach, and Training

NCBA CLUSA is responsible for all technical assistance, outreach and training. As previously mentioned, NCBA CLUSA will provide specialized ToT training and capacity building to Puerto Rican organizations PROCAFE, UPR-AES, and La Liga to ensure continuity and sustainability of those technical methodologies beyond the life of this project. NCBA CLUSA, through PROCAFÉ, will provide farmer-level technical assistance, outreach, and training to encourage and verify the adoption of CSAF practices among farmers enrolled in the project; and collect data to be used for the monitoring, evaluation, and verification of CSC Practices that will feed into UPR's GHG monitoring and quantification services. Relying on its in-house sustainability program and working relationships with NRCS, UPR extension services, and conservation districts, PROCAFÉ will draw on extensive expertise and support to provide technical assistance, training, and other critical support for farmers in adopting climate-smart practices.

NCBA CLUSA through its experience with coffee and CSAF will strengthen PROCAFÉ's capacity to deliver technical assistance to farmers in the pilot projects. NCBA CLUSA will provide start-up technical assistance to PROCAFÉ in the first three months of the project in conservation and climate-smart practice selection and design, the production of organic fertilizers, data collection, planning and reporting; the development of Farmer Field Schools (FFS) and innovative approaches

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for farmer involvement, practice adoption and simplification; and support in farm data management to that will reduce transaction costs for farmers adopting climate-smart practices. The increased capacity at PROCAFÉ will allow for: increased and effective outreach to large numbers of coffee farmer members; the effective implementation of pilot efforts, creating a knowledge base for expansion of adoption in Years 2 – 4; provide proof of concept for the technical assistance model so that it can be readily replicated; and develop the platform for data collection reporting and verification that can be easily expanded to involve other farmers and cooperatives and create wider market opportunities. The long-term working relationships among PROCAFÉ partners will not only make for an effective project, but also create the model and knowledge sharing necessary to expand adoption while shortening the learning curve and transaction costs for subsequent efforts. NCBA CLUSA through PROCAFÉ, UPR, and support farmers will launch an outreach campaign starting in quarter 1, Year 1, of project implementation. The first cohorts of farmers will be selected by month 3, Year 1. PROCAFÉ has identified field staff they will hire for this project experienced in working with farmers in the region. By month 3, Year 1, all field staff will have been recruited. Following recruitment, these field staff will receive training in the pilot project process (month 3, Year 1): conducting farm audit; technical assistance in the specific CSAF practices appropriate for the project; implementation of the incentives program; documentation and data collection for project and GHG purposes. The training will be administered by NCBA CLUSA, through PROCAFÉ and UPR. Considering that PROCAFÉ has a database of approximately 500 pre-identified farmers, the project will begin working with a portion of these during quarter 1 startup in order to take advantage of the primary planting season starting in May/June. However, by month 3, Year 1, NCBA CLUSA through PROCAFÉ's field staff will begin working with farmers to develop individual plans for technical assistance. Once plans are developed, by month 7, field staff will begin farmer orientation, organizing farmer field schools, facilitate access to and use of incentives for CSAF practices and provide technical assistance in practice implementation. This process will continue into year two for the first cohort of farmers. Starting in month 2, Year 2, the project will recruit a second cohort of farmers and repeat the process described above.

Each year NCBA CLUSA, through PROCAFE, will document participation in pilot activities, on farm results, and practice adoption for the farmer and the project. During Year 1, and in subsequent years, PROCAFÉ will conduct field demonstrations; use written, and visual, guidance tailored to farmers (e.g., Spanish-language); and organize farmer-led workshops, trainings and seminars using FFS-style hands-on "learn by doing" approaches to transfer knowledge, disseminate information and exchange lessons learned, trouble-shoot on-farm challenges to adopting climate-smart practices.

D. Plan to Provide Financial Assistance for Producers to Implement CSAF Practices

NCBA CLUSA has extensive experience in the design and implementation of financial assistance for sustainable and organic agriculture, managing tens of thousands of direct payments to farmers totaling more than $20 million in the last five years. NCBA CLUSA is 2 CFR Part 200 compliant, which allows the organization to design specific financial assistance plans for different target groups and purposes, scale up activities in compliance with USDA regulations, and reach producers who may not have this capacity.

This pilot project will provide financial assistance to participating coffee producers to implement CSAF practices through its partnership with PROCAFÉ in two ways:

1. **In-Kind Supplies to Encourage the Adoption of Multi Story Cropping** – NCBA CLUSA will provide the targeted 2000 farmers with a total of 2,744,750 trees as in-kind incentives valued at $2,667,500 (avg. $0.97/tree) with farmers contributing $649,500 of in-kind or monetary resources (cost share). The trees will consist of 2,600,000 arabica coffee (1,300 per farmer) seedlings (Rust/Climate Change Resistant Varieties) and 144,750 other types of trees including, shade and hardwood (NRCS approved for shade, wind barriers/boundaries/watersheds) and citrus (certified free of viruses/grafted) saplings (avg. 72 trees per farmer) for planting in Years 1 – 4.

In-Kind Supplies	Year 1	Year 2	Year 3	Year 4	Total
# of Coffee trees	455,000	1,040,000	975,000	130,000	2,600,000
# of Shade trees	14,000	32,000	30,000	4,000	80,000
# of Hardwood trees	7,000	16,000	15,000	2,000	40,000
# of Citrus & other trees	4,331	9,900	9,281	1,238	24,750
Total In-Kind Incentives – Avg. 1,372 Trees Per Farmer	480,331	1,097,900	1,029,281	137,238	2,744,750
Value of In-Kind Incentives	$466,813	$1,067,000	$1,000,313	$133,375	$2,667,500

PROCAFÉ typically requires a 20% contribution from farmers. This pilot project will take into consideration farmers' land, equipment, and labor when calculating their contributions. PROCAFÉ will be responsible for tracking and documenting farmer contributions. This will enable coffee farmers to renovate severely damaged coffee farms using shade practices that are typically more expensive, but environmentally sound and climate smart. Total farmer in-kind and monetary resources contributions is estimated at a total of $649,500 in cost-share over the life of the project.

NCBA CLUSA applied our Grant Administration rate (see below) to the $2,667,500 In-Kind Incentives per our approved NICRA.

2. **Cost Share Cash Payments for Climate-Smart Practice Adoption** – Participating farmers will have access to cost share cash payments for the implementation of CSAF practices on their operations. A $500 payment per acre will be made for the adoption of a minimum of three of the CSAF practices detailed in Table 1 - CSC Practice Standards for Adoption. Over the life of the project a total of $5,000,000 will be paid to 2,000 farmers for the adoption of CSAF practices that are compliant with NRCS practice standards on 10,000 acres. NCBA CLUSA, through PROCAFÉ, will develop specifications in compliance with NRCS standards for the practices, in close consultation with NRCS and UPR extension and conservation district experts. A simple practice agreement will be developed for each farm operation and its practices, outlining expectations and responsibilities tailored to the specific capacity of small farms. NCBA CLUSA will distribute the cost-share payments while the PROCAFÉ team, with the assistance of UPR, will be responsible for tracking and verifying the implementation of the practices as part of their services to coffee farmers.

Payments	Year 1	Year 2	Year 3	Year 4	Total
Project cost-grant/Acre	$500				$500
# Of Acres CSAF Practices	1,000	2,500	3,500	3,000	10,000
Total Cost Share	$500,000	$1,250,000	$1,750,000	$1,500,000	$5,000,000

As project activities are planned and implemented, and prior to payments, project management staff will consult with NRCS staff to ensure compliance with Climate-Smart practice standards as detailed on NRCS's website[21] and in keeping with all appropriate confidentiality requirements, the project will ensure that practices implemented on acreage under NRCS contracts are not included for payment by the project.

A participating farmer will participate in training activities; implement a minimum of three CSAF practices on five acres of their operation; for a flat per acre cost share rate; provide farm, CSAF practice implementation, and production data for project-level evaluation; and cooperate in verification of CSAF practice implementation and GHG benefits. In addition to the in-kind incentives and climate-smart practice financial support, farmers will receive technical assistance from NCBA CLUSA through PROCAFÉ and UPR, as appropriate, for out-of-pocket expenses related to participation in pilot project trainings, trade shows, meetings, and workshops. In addition to the $7.6 million of in-kind supplies and cash payments, the total value of NCBA CLUSA's technical assistance package is approximately $1.4 million over the duration of the project which includes specialist consultant fees as well as contractual services, trainings, workshops, inputs, and other technical assistance provided through PROCAFÉ, UPR, and La Liga. The total value of farmer direct assistance is approximately $9.1 million over the life of the project (approximately $911 per acre or $4,555 per farmer).

In addition, the project will foster connections and opportunities for partnering with farm credit institutions, local credit unions, and community banks, to provide financial packages and loan education to support farmers during and after the completion of the financial assistance provided by the project. For example, Fidecoop, a support partner on the project, will provide loans to producer coops, as well as review farmers' loan applications, and refer them to credit unions for on-farm and market investments beyond the scope of the project.

E. Plan to Enroll Underserved and Small Producers

As noted above, our pilot project partnership includes subawardees PROCAFÉ, La Liga, and UPR, organizations that support and represent the interests of Puerto Rican farmers. NCBA CLUSA will also engage resource partners the PRFA, AgroComercial, NCG and others. Our strategy for enrolling underserved producers to expand the production of CSCs is to work with these partners who are currently supporting underserved producers. NCBA CLUSA will help these partners strengthen their infrastructure and capacity to reach farmers in their communities, both during and beyond the project period. PROCAFÉ estimates that this project will enroll 2,000 coffee farmers in PR (where the vast majority of producers are underserved), starting with 350 farmers in Year 1.

Producer enrollment will proceed after this first cohort with producers that meet the following eligibility requirements: being a coffee producer for at least the past 3 years, owning their land, and willingness to enter into an agreement to adopt CSAF practices.

III. Measurement/Quantification, Monitoring, Reporting and Verification

A. Approach to Greenhouse Gas Benefit Quantification

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[21] https://www.nrcs.usda.gov/resources/guides-and-instructions/conservation-practice-standards

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NCBA CLUSA will partner with SustainCert and UPR to design and implement the project's GHG emissions and climate benefit data collection and analysis for participating producers. UPR will train PROCAFÉ field staff and producers in data collection and data entry. Field staff, with the support of NCBA CLUSA and UPR oversight, will gather data alongside farmers during farm audits and FFS sessions, and feed data collected into a standardized record-keeping system.

The USDA's COMET Planner does not have the capability to generate GHG benefits estimates for PR, the U.S. Virgin Islands, or other U.S. Territories. As such, we will plan to use the Agriculture, Forestry and Other Land Use (AFOLU) Carbon Calculator (http://afolucarbon.org). Developed by the United States Agency for International Development (USAID) and Winrock International, the AFOLU Carbon Calculator (ACC) uses Intergovernmental Panel on Climate Change (IPCC)-based accounting methods to assess and quantify CO_2 sequestration potential of a range of AFOLU practices, including agroforestry, cropland management, and grazing land management. Additionally, NCBA CLUSA will use i-Tree (https://www.itreetools.org/), a state-of-the art, peer reviewed software suite from the USDA Forest Service for assessing and managing the GHG benefits from tree plantations.

NCBA CLUSA will use the ACC for Puerto Rican coffee plantings as a low-cost method of quantifying, reporting, and tracking GHGs and water quality benefits from CSAF practice implementation, and to develop a methodology that helps track those benefits through the supply chain.

B. Approach to Monitoring of Practice Implementation, Including the Anticipated Number of Farms and Acres Reached through Project Activities

We anticipate that 2,000 farmers will participate in this pilot project over the four years. The project will implement CSAFs on 10,000 acres (10,309 cuerdas), the traditional unit of land measurement in PR) of coffee fields. For a sample of the quantitative quarterly Benchmarks and milestones, please see **Annex 1 – Quarterly Benchmarks/Milestones**.

NCBA CLUSA with support from PROCAFÉ's and UPR's field staff, will use the 3-month admin startup and value chain envisioning workshops to determine the appropriate practices to promote and a baseline of data available that will guide their work with each farmer's operation. That data will be aggregated to provide data sets for the number of farmers involved, the work planned and in progress, current agricultural practices in use, number of acres, and federal and local incentives provided.

NCBA CLUSA will train PROCAFÉ's field staff to facilitate FFS training sessions on a biweekly basis and obtain producer-level data (trees planted, acreage, input use, economic data, etc.) on a quarterly basis, at a minimum. This pilot project will make improvements to and use PROCAFÉ's existing data collection and management system on the Microsoft Office 365 platform, collecting the data in an Excel spreadsheet, storing, and transmitting data using SharePoint, and creating and publishing dashboards on a Power BI site.

NCBA CLUSA's M&E experts will provide support to PROCAFÉ in the development of quality M&E processes and protocols, as well as assuring data quality, preparing periodic reports to USDA, and facilitating learning exchange. NCBA CLUSA will also promote the creation of a

comprehensive knowledge management practice within the project that will create a dynamic dialogue between learning and implementation, which will in turn also require project management to refine activities as implementation progresses and maximize project results.

NCBA CLUSA will manage the design, development, collection, and use of public relations materials including notes from the field, photos, and graphics, and where relevant and necessary, prepare specialized presentations of data including but not limited to lessons learned and best practices.

C. Approach to Reporting and Tracking of Greenhouse Gas Benefits

As noted above in Section III. A: Approach to Greenhouse Gas Benefit Quantification, the project will quantify, report, and track GHG benefits that are concurrent with those detailed in USDA's Entity-Scale Methods, that are based on peer-reviewed science, and that are replicable by third parties. With the data collected from farmers on their farms, implementation of CSAF practices, commodity yields, and pilot project expenditures, we will track and report GHG benefits per farm (emission reductions or removals generated), per project, per commodity produced, per dollar expended, and on the anticipated longevity of GHG benefits. Data to be provided to USDA will be guided by producer data privacy agreements. Outcomes will be reported at an aggregated level on a quarterly basis per program requirements.

D. Approach to Verification of Greenhouse Gas Benefits

Third-party verifier SustainCERT will verify the greenhouse gas benefits generated by the project and its associated processes. SustainCERT is a technology-driven verification and certification company that helps businesses and investors efficiently and credibly quantify the impacts produced by sustainability programs, including supply chain interventions in farming communities. They are also an official certification company for the Gold Standard, a globally recognized standards body for climate and Sustainable Development Goal (SDG) impact assessment.

In their role as a third-party verifier for the project's coffee value chain interventions, SustainCERT will certify GHG reductions, which will be critical to project success. They will evaluate the project monitoring reports and assess the extent to which methods and procedures, including monitoring procedures, have been implemented in accordance with the validated project description; ensuring conformance with the monitoring plan; and that GHG emission reductions and removals reported in the monitoring report are materially accurate. As an impartial third-party, SustainCERT, will also act as a "registry" for the GHG reductions/removals generated from the project to safeguard against double counting.

E. Agreement to Participate in the Partnerships Network

NCBA CLUSA is eager to exchange knowledge gained and lessons learned with the USDA, other grantees, and other members of the Learning Network including the CSC project Sustainable Market Approaches for Regenerating Territories with Agricultural Goods in Puerto Rico led by Caribbean Regenerative Community Development, Inc. NCBA CLUSA will provide at least one representative – the Lead Project Administrator – to participate in the USDA NRCS's Partnerships for Climate-Smart Commodities Learning Network on a quarterly basis.

IV. Plan to Develop and Expand Markets for Climate-smart Commodities Generated as a Result of

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Project Activities

A. Partnerships Designed to Market Resulting Climate-Smart Commodities

In PR and around the world, cooperatives have served as laboratories for new ways of thinking about the way we eat, from healthy food to organic agriculture, and fair trade certifies goods to systems for the distribution and retailing of bulk products.

PR coffee farmers meet about 15% (4 million pounds) of PR's total green coffee demand (2.8 million pounds).[22] In 2016, PR struggled to produce 28% of local coffee consumption.[23] The PR government imports the remaining semi-roasted coffee to meet the remaining local demand.

The PR Department of Agriculture's Administración para el Desarrollo Empresas Agropecuarias (ADEA) currently runs the "Coffee Purchase/Sale Program." The program, which has been running for over 70 years, purchases coffee from PR farmers at a guaranteed price, sells the washed/milled/de-pulped coffee to local roasters, and supplies roasters with the remainder of their raw material needs with semi-roasted coffee imported exclusively by ADEA. PR regulations require roasters (processors) to identify on their packaging whether their coffee is totally or partially imported.[24] Establishing relationships with PR coffee roasters will enable the project to leverage this labeling program and encourage differentiation of the climate smart coffee produced by project farmers.

NCBA CLUSA will work with several commodity buyers to market CSCs produced through this pilot project. Potential buyers include the Coffee Cooperative Agro-Commercial, cooperative supermarkets Famcoop and Supermercados Mi Gente, as well as high-end supermarkets Econo and Selectos, and the National Restaurant Association (ASORE) which includes the hospitality sector (hotels, restaurants, all-inclusive resorts, and coffee shops) in PR, and McDonalds, which pays a premium for local quality coffee in PR. The PRFA has a "100% Puerto Rico" seal that allows its members to use for locally produced products and has agreed to extend the seal for 100% PR Climate-Smart Coffee for differentiation from those producers that are PRFA members. NCBA CLUSA will use its extensive experience in marketing and brand improvements to assist with the branding of PR Climate-Smart Coffee. Under the USAID/Peru Cooperative Development Program (CDP) program, NCBA CLUSA has implemented its online Cooperative Marketing School which provides services to coffee and cacao producers and cooperatives and in FY22 completed 21 courses with over 6,600 participants on various digital marketing and social media topics. The CDP program also facilitated a partnership between cooperatives and local Peruvian retailer Thika Thani, which now provides market access for 10 CDP-supported cooperatives. Approximately 30% of Thika Thani's products are now sourced from cooperatives. In addition, NCBA CLUSA's USDA FFPr project in El Salvador trained 715 coffee producer organizations in marketing techniques and facilitated 8 promotional campaigns resulting in 39 new contracts from 12 distinct markets for a value of $94.8 million in coffee sales.

Rainforest Alliance (RA) is a leading third-party certifier of coffee around the world which focuses on producers' efforts to support healthy forests, CSCs, human rights, and livelihoods. NCBA CLUSA technical assistance will comply with RA standards and the project will promote

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[22] October 15, 2020 Coffee Industry Data
[23] https://perfectdailygrind.com/2016/03/puerto-rican-coffee-the-bittersweet-history-rise-of-specialty/
[24] Regla 7(b) from the Regulation for Coffee Price Control (Reg. 8578)

certification with producers that may be interested for export to external markets. If there is high demand for certification, the project will seek opportunities to engage RA for certification training to take place around Years 3 or Year 4 of the project.

We will also work with National Co+op Grocers (NCG), an NCBA CLUSA member and the leading business services cooperative for retail food cooperatives located throughout the U.S. NCG represents 148 food cooperatives operating over 200 stores in 38 states with combined sales serving over 1.3 million consumer-owners. NCG will support the marketing of CSCs produced by cooperatives in PR and assist with the marketing and branding strategies to promote CSCs in their member stores.

Throughout the life of the project, the UPR will be conducting research on CSC practices and will be submitting research on an annual basis for publication in peer reviewed journals. These publications will serve to market the CSCs as well as inform USDA about future activities.

Furthermore, we will seek to engage with the CSC project *Sustainable Market Approaches for Regenerating Territories with Agricultural Goods in Puerto Rico* led by Caribbean Regenerative Community Development, Inc. to collaborate and leverage resources including the development of a unique Puerto Rican branded climate-smart coffee label and voluntary program.

Additionally, NCBA CLUSA will seek to participate in the *Sustainable Coffee Challenge*, a collaborative effort of companies, governments, NGOs, research institutions and other actors seeking to make the coffee sector sustainable. It was originally conceived by Conservation International and Starbucks in 2015 with 18 founding partners dedicated to stimulating greater demand for sustainable coffee, but has since grown to more than 155 international partners. NCBA CLUSA's participation will promote Climate-Smart Coffee production practices in Puerto Rico as well as seek new markets for CSC coffee products.

B. A Plan to Track CSC Through Supply Chain

A project supply-chain specialist will assist PROCAFÉ and cooperatives to establish a traceability system for tracking CSCs through the supply chain at each link in the value chain as a critical component of expanding market opportunities for project-produced CSCs that is verified through UPR and SustainCert services. Ongoing expert staff, training, and technical assistance on coffee related climate-smart practices including rehabilitation, renovation, locally sourced input production, tree maintenance, traceability and others will be provided by NCBA CLUSA during years 1 and 3 of the project. PROCAFÉ field staff will be responsible for collecting CSC production data at the farm level, and that data will be aggregated using PROCAFÉ's existing record-keeping system developed for previous projects. NCBA CLUSA will ensure PROCAFÉ, cooperatives and farmers involved have ownership of the supply chain tracing process and can tailor it to meet their goals of expanding market opportunities.

C. Estimated Economic Benefits for Participating Producers, Including Market Returns

NCBA CLUSA estimates that farmers participating in this pilot project will (in aggregate) realize the following economic benefits from the production of CSCs:

- PR coffee farmers increase productivity from about 6.5 quintals/cuerda (67,008

qt/10,309cuerdas) to 15 q/cuerda (154,635q/10,309 cuerdas), using climate-smart agriculture and forestry practices. This is expected to produce 87,627 quintals of additional coffee on the targeted 10,000 acres past the life of the project, a 130% increase.

- A reduction in costs by 25% due to the more efficient use of inputs and water, and more efficient land management, comparable to results experienced on NCBA CLUSA's USDA's FFPr Coffee Stabilization and Agricultural Rehabilitation project which when combined with locally produced inputs, low-cost nurseries and mechanization, producers experienced 30-60% reductions in production costs according to consultant reports.[25] This project also enabled access to 12 new markets for Salvadoran coffees and exports valued at $98 million.

- A revenue increase from approximately $14 million today to $50 million from the production of climate-smart coffee in PR by the end of the project from production improvements from existing trees due to improved fertilizer management, soil health, and tree management in addition to production from new plantings by years 3 and 4 as well as the reduction in costs.

- Beyond the quantifiable benefits to farmers' bottom lines, the diversification of crops grown in Multi-story Perennial Cropping systems will increase resilience for smallholder Puerto Rican coffee farmers, their families, and their communities. Given that Puerto Ricans rely on imports for 85% their food supply[26], farmers' ability to expand into citrus, plantains, bananas, cacao, and other crops for local and for home consumption has significant economic and food security benefits.[27]

D. Post-Project Potential, including anticipated ability to scale project activities, likelihoods of long-term viability beyond project period, and ability to inform future USDA actions to encourage climate-smart commodities

As the result of iterative rounds of farmer enrollment, training and support to implement CSAF practices, verification of practice implementation and GHG sequestration/mitigation, and data-backed results in terms of yield and premiums, the project will create a proven model for expanding the production and marketing of CSCs through the voluntary adoption of CSAF practices by small and underserved farmers that can be scaled in the future.

Our project partnership will seek to develop a suite of tools (e.g., program manuals, enterprise budgets, resources on and relationships with service providers, data on success, case studies, communications, and promotional materials) in quarters 1-2 of year 1 that can be used or adapted to replicate our successful model with other cooperatives, communities, and commodities across PR. We will share our tools with USDA and members of the Partnerships for Climate-Smart Commodities Learning Network to inform future USDA actions that encourage CSCs.

As noted above, through this pilot project, we seek to build the capacity of PROCAFÉ's in-house sustainability program so that it can continue to train PR farmers on the voluntary adoption of CSAF practices and link them to CSC markets beyond the project period and the 500 farmers they already assist. Examples include:

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[25] Aldana, Marco, IMPACTO ECONÓMICO DE "TÉCNICAS DE BAJO COSTO", PROMOVIDAS POR NCBA CLUSA, EN LA RENOVACIÓN DE ÁREAS DE CAFÉ, Junio 2017

[26] André Zollinger, "Food Security and Debt: Rebooting Puerto Rican Agriculture as a Path Out of Crisis," https://jpia.princeton.edu/news/food-security-and-debt-rebooting-puerto-rican-agriculture-path-out-crisis, April 14, 2022.

[27] Alicia Kennedy, "Why Puerto Rico Is Betting Big on Mushrooms," https://foreignpolicy.com/2022/10/09/puerto-rico-climate-food-sovereignty-mushrooms/, October 9, 2022.

- Providing funding to hire additional agronomists with experience in agroforestry, regenerative and climate-smart agricultural practices as well as funding for lead farmers to promote the project's activities.
- Building upon PROCAFÉ's existing programming with the TA from NCBA CLUSA regarding input manufacturing the farmer fields schools and UPR on carbon emissions monitoring and verification, facilitate the development of training programs tailored to the needs, interests, and capacities of PR coffee farmers
- Working with cooperatives and implementing partners to develop low-cost monitoring, evaluation, and verification processes.
- Improve engagement with current allies working in coffee production and research including the Horticultural Science Department from the University of Florida-Gainesville's Institute for Food and Agricultural Sciences as well as World Coffee Research.
- Strengthening PROCAFÉ financial and administrative capacities to manage larger funding opportunities and sources of capital (revenue share from e.g., increased commodity production, carbon, and ecosystem services markets) to continue training farmers.
- Strengthening PROCAFÉ's capacity to improve their eligibility to receive larger direct awards from USDA.
- Strengthening PROCAFÉ relationships with other USDA projects and programs including the CSC Caribbean Regenerative Community Development, Inc.'s project Sustainable Market Approaches for Regenerating Territories with Agricultural Goods in Puerto Rico.

In addition to PROCAFÉ, the agreements with SustainCert and the Agricultural Experiment Station of the University of Puerto Rico (AES-UPR) will strengthen local capacities for climate-smart agricultural practices research, and the measurement/quantification, and verification of carbon and greenhouse gas emissions. The PROCAFÉ and AES-UPR currently engage with the NRCS's Puerto Rico office and will therefore be able to better inform future USDA actions on climate-smart commodities in Puerto Rico. Furthermore, the Farmer cooperative strengthening services provided by the La Liga de Cooperatives de Puerto Rico will leave farmer groups financially and administratively stronger to provide improved services to their members including the promotion of climate-smart production practices that meet current and future market demands.

Annex 1 – Quarterly Quantitative Benchmarks/Milestones

#	Required Quantitative Targets by Quarter (Cumulative)	Type	Units	Total	Year 1 Q1	Q2	Q3	Q4	Year 2 Q1	Q2	Q3	Q4	Year 3 Q1	Q2	Q3	Q4	Year 4 Q1	Q2	Q3	Q4	Total
1	Number of producers involved	Individuals		2,000	50	175	75	50	300	300	100	100	300	300	100	50	50	50	-	-	2,000
2	Number of underserved producers involved	Individuals		2,000	50	175	75	50	300	300	100	100	300	300	100	50	50	50	-	-	2,000
3	Number of acres involved	Acres	5	10,000	-	100	350	550	625	625	625	625	875	875	875	875	1,500	1,500	-	-	10,000
4	Number of trees distributed to farmers	Trees	1,372	2,744,750	68,619	240,166	102,928	68,619	411,713	411,713	137,238	137,238	411,713	411,713	137,238	68,619	68,619	68,619	-	-	2,744,750
5	Number of head involved (Avg household = 3 include farmer + 2 farm workers)	Individuals	5	10,000	250	875	375	250	1,500	1,500	500	500	1,500	1,500	500	250	250	250	-	-	10,000
6	Dollars provided to producers / Acre applied w/ practices	USD	$ 500	$ 5,000,000	$ -	$ 50,000	$ 175,000	$ 275,000	$ 312,500	$ 312,500	$ 312,500	$ 312,500	$ 437,500	$ 437,500	$ 437,500	$ 437,500	$ 750,000	$ 750,000	$ -	$ -	$ 5,000,000
7	Cost-share / tree	USD	$ 0.24	$ 649,500	$ 16,238	$ 56,831	$ 24,356	$ 16,238	$ 97,425	$ 97,425	$ 32,475	$ 32,475	$ 97,425	$ 97,425	$ 32,475	$ 16,238	$ 16,238	$ 16,238	$ -	$ -	$ 649,500
8	GHG Benefits (MT CO2 Equivalent Sequestered/qtr) Trees + Practices	New	0.47	40,320.33	14.23	110.82	295.95	567.58	945.58	1,323.95	1,645.13	1,966.23	2,466.62	2,978.66	3,423.89	3,852.57	4,602.43	5,364.33	5,381.16	5,395.43	40,320.33
9	Accumulated GHG Benefits (MT CO2 equivalent Sequestered/qtr) Trees + Practices	Cumulative			14.23	125.04	421.00	988.58	1,934.16	3,258.11	4,903.24	6,869.47	9,336.09	12,314.75	15,738.63	19,591.20	24,193.63	29,557.96	34,939.12	40,334.55	204,505.52
10	Number of new marketing channels* established			34	0	0	2	3	2	0	2	8	2	1	2	6	2	2	2	0	34
11	Number of marketing channels* expanded			76	0	0	0	10	10	0	0	10	10	1	1	10	10	2	2	10	76
12	Number of measurement tools utilized	Tools		4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
	*Note: Marketing channels can be a wide range e.g. selling to food processors, distributers, direct to consumer.																				
13	Total Outreach, Training, and Technical Assistance Activities				105	327	231	289	690	692	423	436	752	734	465	382	337	295	-	-	6,158
	Outreach	NCBA CLUSA / PROCAFE / UPR / LA LIGA	Activities		26	40	15	39	40	26	14	36	40	24	12	12	12	0	0	-	336
	Training	Workshops / Group Trainings / etc.	Min/biweekly		29	92	71	90	200	216	159	150	212	210	153	120	75	45	0	-	1,822
	Technical Assistance	Farm Visits / Practice Validation & GHG Quant			50	195	145	160	450	450	250	250	500	500	300	250	250	250	0	-	4,000
14	Estimated Project Expenses	USD		$ 14,999,997	$ 465,030	$ 581,288	$ 988,189	$ 871,932	$ 1,336,283	$ 1,333,795	$ 834,528	$ 834,528	$ 1,468,037	$ 1,468,037	$ 1,000,526	$ 883,648	$1,100,312	$1,100,312	$ 484,137	$ 249,414	$ 15,000,000

Annex 2 – Other Required Quarterly Benchmarks/Milestones that may be quantitative or qualitative

#	Other Required Benchmarks that may be quantitative or qualitative	Type	Units	Total	Year 1 Q1	Q2	Q3	Q4	Year 2 Q1	Q2	Q3	Q4	Year 3 Q1	Q2	Q3	Q4	Year 4 Q1	Q2	Q3	Q4	Total
1	Other MMRV and supply chain traceability attributes	N/A																			
2	Other measurements of work related to marketing of commodities						NCBA CLUSA & Procafe create label/seal for "100% Puerto Rico Climate-Smart Coffee" / Creation of CSC Info Campaign with Partners and PRFA / 2x Marketing exchanges with potential buyers (NCBA CLUSA members (ex. National Coop Grocers) or coffee traders/roasters/etc) / Consultant for coffee market study	1x Months of promotion of Info Campaign and 100% CSC / 1 x Participation in specialty Coffee Trade Shows	3x Months of promotion of Info Campaign and 100% PR CSC / 2x Marketing Exchanges / Stakeholder Envisioning Workshop / 2x participation in Specialty coffee trade shows	3x Months of promotion of Info Campaign and 100% PR CSC / 1.x participation in specialty coffee trade shows	3x Months of promotion of Info Campaign and 100% PR CSC / 2x participation in Specialty coffee trade shows	3x Months of promotion of Info Campaign and 100% PR CSC / 2x Marketing Exchanges	3x Months of promotion of Info Campaign and 100% PR CSC / 2x marketing participation in Specialty Coffee Trade Shows	3x Months of promotion of Info Campaign and 100% PR CSC	3x Months of promotion of Info Campaign and 100% PR CSC / 2x Marketing Exchanges / 2x participation in specialty coffee trade shows	3x Months of promotion of Info Campaign and 100% PR CSC / 2x participation in specialty coffee trade shows	3x Months of promotion of Info Campaign and 100% PR CSC / 2x Marketing Exchanges / 2x participation in specialty coffee trade shows	3x Months of promotion of Info Campaign and 100% PR CSC / 2x Marketing Exchanges	3x Months of promotion of Info Campaign and 100% PR CSC
3	Demonstrated engagement of major partners																				
	NCBA CLUSA	General Activities			Project Startup / Overall Project Financial/Administrative Management & quarterly Reporting / In-person Partnership Network participation (tentatively April & June) / Negotiate & Sign subawards / Facilitate 2 Stakeholder envisioning workshops / Facilitate initial Work Plan & Technical design workshop / Facilitate consultant training to project technical staff on NRCS Environmental Evaluation CPA-52 Worksheet, Tools and Training / Negotiate tree procurement for distribution	Overall Project Financial/Administrative Management & quarterly Reporting / Engagement with marketing channels / Review compliance documentation for incentive payment/grant distribution to qualifying farmers / outreach	Overall Project Financial/Administrative Management & quarterly Reporting / In-Person Partnership Network participation/ Engagement with marketing channels / Facilitate stakeholder envisioning workshop / Review compliance documentation for incentive payment/grant distribution to qualifying farmers / outreach	Overall Project Financial/Administrative Management & quarterly Reporting / Engagement with marketing channels / Virtual Partnership Network participation / Review compliance documentation for incentive payment/grant distribution to qualifying farmers / outreach	Overall Project Financial/Administrative Management & quarterly Reporting / Engagement with marketing channels / Facilitate annual workplan update retreat / In-person partnership network participation / Review compliance documentation for incentive payment/grant distribution to qualifying farmers / outreach	Overall Project Financial/Administrative Management & quarterly Reporting / Engagement with marketing channels / Virtual partnership network engagement / Review compliance documentation for incentive payment/grant distribution to qualifying farmers / outreach	Overall Project Financial/Administrative Management & quarterly Reporting / In-person Partnership Network Engagement / Engagement with marketing channels / Review compliance documentation for incentive payment/grant distribution to qualifying / outreach	Overall Project Financial/Administrative Management & quarterly Reporting / Engagement with marketing channels / Virtual Partnership Network engagement / Review compliance documentation for incentive payment/grant distribution to qualifying farmers / outreach	Overall Project Financial/Administrative Management & quarterly Reporting / Engagement with marketing channels / Facilitate annual workplan update retreat / Facilitate consultant training to project technical staff on NRCS Environmental Evaluation CPA-52 Worksheet, Tools and Training / Review compliance documentation for incentive payment/ outreach	Overall Project Financial/Administrative Management & quarterly Reporting / Engagement with marketing channels / Virtual Partnership Network Engagement / Review compliance documentation for incentive payment/grant distribution to qualifying farmers / outreach	Overall Project Financial/Administrative Management & quarterly Reporting / Engagement with marketing channels / In-Person Partnership Network Engagement / Review compliance documentation for incentive payment/grant distribution to qualifying farmers / outreach	Overall Project Financial/Administrative Management & quarterly Reporting / Engagement with marketing channels / Virtual Partnership Network Engagement / Review compliance documentation for incentive payment/grant distribution to qualifying farmers / outreach	Overall Project Financial/Administrative Management & quarterly Reporting / Engagement with marketing channels / Virtual Partnership Network Engagement / Review compliance documentation for incentive payment/grant distribution to qualifying farmers / outreach	Overall Project Financial/Administrative Management & quarterly Reporting / In-Person Partnership Network Engagement / Engagement with marketing channels / Review compliance documentation for incentive payment/grant distribution to qualifying farmers / outreach	Overall Project Financial/Administrative Management & quarterly Reporting / In-Person Partnership Network Engagement / Engagement with marketing channels / Review compliance documentation for incentive payment/grant. Finalize project documentation for closeout
	PROCAFE	General Qtrly Activities			Negotiate & Sign subaward / Participate in Organic Input ToT / Initiate Outreach to 500 farmers in existing database	Conduct outreach, Training, and technical assistance to farmers / Facilitate tree distribution / Farm visit and practice validation	Conduct outreach, Training, and technical assistance to farmers / Facilitate tree distribution / Farm visit and practice validation	Conduct outreach, Training, and technical assistance to farmers / Facilitate tree distribution / Farm visit and practice validation	Participate in Annual Workplan Retreat / Conduct outreach, Training, and technical assistance to farmers / Facilitate tree distribution / Farm visit and practice validation	Conduct outreach, Training, and technical assistance to farmers / Facilitate tree distribution / Farm visit and practice validation	Conduct outreach, Training, and technical assistance to farmers / Facilitate tree distribution / Farm visit and practice validation	Conduct outreach, Training, and technical assistance to farmers / Facilitate tree distribution / Farm visit and practice validation	Participate in Annual Workplan Retreat / Conduct outreach, Training, and technical assistance to farmers / Facilitate tree distribution / Farm visit and practice validation	Conduct outreach, Training, and technical assistance to farmers / Facilitate tree distribution / Farm visit and practice validation	Conduct outreach, Training, and technical assistance to farmers / Facilitate tree distribution / Farm visit and practice validation	Conduct outreach, Training, and technical assistance to farmers / Facilitate tree distribution / Farm visit and practice validation	Participate in Annual Workplan Retreat / Conduct outreach, Training, and technical assistance to farmers / Facilitate tree distribution / Farm visit and practice validation	Conduct outreach, Training, and technical assistance to farmers / Facilitate tree distribution / Farm visit and practice validation	Conduct outreach, Training, and technical assistance to farmers / Facilitate tree distribution / Farm visit and practice validation etc.	Conclude project participation, generate final reports.
	University of Puerto Rico-AES	General Qtrly Activities			Negotiate & sign subaward/ Participate in Workplan & Design retreat/ Design Quarterly GHG Quantification methodology	Farm visit and GHG Quantification	Farm visit and GHG Quantification	Farm visit and GHG Quantification	Participate in Annual Workplan Retreat/ Farm visit and GHG Quantification / CSC Research applicable to Puerto Rico	Farm visit and GHG Quantification / CSC Research applicable to Puerto Rico	Farm visit and GHG Quantification / CSC Research applicable to Puerto Rico	Farm visit and GHG Quantification / CSC Research applicable to Puerto Rico	Participate in Annual Workplan Retreat/Farm visit and GHG Quantification / CSC Research applicable to Puerto Rico	Farm visit and GHG Quantification / CSC Research applicable to Puerto Rico	Farm visit and GHG Quantification / CSC Research applicable to Puerto Rico	Farm visit and GHG Quantification / CSC Research applicable to Puerto Rico	Conclude project participation generate final reports, etc.			
	SustainCert	General Qtrly Activities			Negotiate & Sign Subaward/ Intervention Assessment; Initiate Virtual Capacity Building sessions for Project Technical Staff (ProCafe & UPR-AES)	Initiate Virtual Discovery Sessions (per Intervention Assessment phase)	Continue and Conclude Virtual Discovery Sessions (per Intervention Assessment phase)	Preliminary Review of project design via Value Chain-Impact Verification Platform (VC-IVP); Initiate Scope 3 Software (S3S) Onboarding	Initiate validation of project design via VC-IVP; audit plan creation and performance of desk audit	Conclude validation; initiate verification of GHG outcomes via VC-IVP, conduct site visit	verification of GHG outcomes, onboard verified outcomes into S3S for registration/emission factor calculation/transfer of impacts	Initiate Design change/Re-Validation (add new farms to existing program) via VC-IVP for Y2 cycle	Conclude design change/re-validation; initiate verification of GHG outcomes via VC-IVP	Conduct site visit, conclude verification of GHG outcomes	Onboard verified outcomes into S3S for registration/emission factor calculation/transfer of impacts	Initiate Design change/Re-Validation (add new farms to existing program) via VC-IVP for Y3 cycle	Conclude design change/re-validation; initiate verification of GHG outcomes via VC-IVP	Conduct site visit, conclude verification of GHG outcomes	Onboard verified outcomes into S3S for registration/emission factor calculation/transfer of impacts	Conclude project participation, generate final reports, etc.
	Liga de Cooperativas de Puerto Rico	General Qtrly Activities			Annual Introductory Training to Producer Cooperatives about project objectives. / Interactive seminars and technical assistance training to farmers and producer cooperatives on associativity and climate smart production.	Cooperative Field Study and Project Promotion within Cooperative sector.	Interactive seminars and technical assistance training to farmers and producer cooperatives on associativity and climate smart production.	Farmer Training Seminars on the importance of the cooperative economy and climate-smart production practices	Interactive seminars and technical assistance training to farmers and producer cooperatives on associativity and	Farmer Training Seminars on the importance of the cooperative economy and climate-smart production practices	Interactive seminars and technical assistance training to farmers and producer cooperatives on associativity and climate smart production.	Farmer Training Seminars on the importance of the cooperative economy and climate-smart production practices	Annual Introductory Training to Producer Cooperatives about project objectives. / Interactive seminars and technical assistance training to farmers and producer cooperatives on associativity and climate smart production.	Cooperative Field Study and Project Promotion within Cooperative sector.	Interactive seminars and technical assistance training to farmers and producer cooperatives on associativity and climate smart production.	Farmer Training Seminars on the importance of the cooperative economy and climate-smart production practices	Annual Introductory Training to Producer Cooperatives about project objectives. / Interactive seminars and technical assistance training to farmers and producer cooperatives on associativity and climate smart production.	Interactive seminars and technical assistance training to farmers and producer cooperatives on associativity and climate smart production.		18
4	Climate smart technologies employed (if applicable) (Min 3 CSAF Practices)/acre	Practice	3	3	-	300	1,050	1,650	1,875	1,875	1,875	1,875	2,625	2,625	2,625	4,500	4,500	-			30,000

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
327	Conservation Cover
328	Conservation Crop Rotation
329	No Till
332	Contour Buffer Strips
340	Cover Crop
345	Reduced Till
386	Field Borders
484	Mulching
601	Vegetative Barriers
311	Alley cropping
342	Critical Area Planting
379	Multistory Cropping/Forest Farming
380	Windbreaks/shelterbelt Establishment and Renovation
391	Riparian Forest Buffers
422	Hedgerow Planting
612	Tree/Shrub Establishment
590	Nutrient Management
595	Pest Management Conservation System
645	Upland Wildlife Habitat Management
666	Forest Stand Improvement

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

Practice Name	Alternative Practice Standards
None	

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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."

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

<u>Project Summary</u>
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

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<u>Partner Activities</u>

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

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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

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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

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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)

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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

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<u>Field Summary</u>

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

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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

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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

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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.

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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

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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

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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 (CO_2eq) 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

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<u>Partner Activities</u>

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

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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

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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

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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

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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

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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

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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

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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

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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

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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

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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

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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

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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

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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

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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

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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

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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

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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

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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

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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

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<u>Field Enrollment</u>

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

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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

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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.

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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

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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

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USDA Partnerships for Climate-Smart Commodities Data Dictionary for Recipients
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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

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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

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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

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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

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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

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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

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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

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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

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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

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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

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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

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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

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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

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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

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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

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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

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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

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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

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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

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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

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<u>CSAF Practice Sub-questions</u>
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

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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

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	Strip width (feet)	20-1,000
Filter Strip (CPS 393)	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

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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

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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

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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

USDA Partnerships for Climate-Smart Commodities Data Dictionary for Recipients
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<u>Other CSAF Practices</u>
Traditional or cultural practices
Microbial products
Solar power generation
Grain bin construction
Pre-season drainage

USDA Partnerships for Climate-Smart Commodities Data Dictionary for Recipients
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Appendix B: Commodity List

CROPS

ALFALFA	CINNAMON	HYBRID POPLAR TREES
ALMONDS	CLOVER	IDLE
AMARANTH GRAIN	COCONUTS	INDIGO
APPLES	COFFEE	ISRAEL MELONS
APRICOTS	CORN	JACK FRUIT
ARONIA (CHOKEBERRY)	COTTON ELS	JERUSALEM ARTICHOKES
ARTICHOKES	COTTON UPLAND	JICAMA
ASPARAGUS	CRANBERRIES	JOJOBA
ATEMOYA	CRENSHAW MELON	JUJUBE
AVOCADOS	CRUSTACEAN	JUNEBERRIES
BAMBOO SHOOTS	CUCUMBERS	KENAF
BANANAS	CURRANTS	KHORASAN
BARLEY	DASHEEN	KIWIBERRY
BEANS	DATES	KIWIFRUIT
BEETS	DURIAN	KOCHIA (PROSTRATA)
BIRDSFOOT/TREFOIL	EGGPLANT	KOHLRABI
BLUEBERRIES	EINKORN	KOREAN GOLDEN MELON
BREADFRUIT	ELDERBERRIES	KUMQUATS
BROCCOFLOWER	EMMER	LAMBS EAR
BROCCOLI	FIGS	LEEKS
BROCCOLINI	FINFISH	LEMONS
BRUSSEL SPROUTS	FLAX	LENTILS
BUCKWHEAT	FLOWERS	LESPEDEZA
CABBAGE	FORAGE SOYBEAN/SORGHUM	LETTUCE
CACAO	GAILON	LIMES
CACTUS	GARLIC	LONGAN
CAIMITO	GENIP	LOQUATS
CALABAZA MELON	GINGER	LYCHEE
CALALOO	GINSENG	MANGOS
CAMELINA	GOOSEBERRIES	MANGOSTEEN
CANARY MELON	GOURDS	MAPLE SAP
CANARY SEED	GRAPEFRUIT	MAYHAW BERRIES
CANEBERRIES	GRAPES	MEADOWFOAM
CANISTEL	GRASS	MILKWEED
CANOLA	GREENS	MILLET
CANTALOUPES	GROUND CHERRY	MIXED FORAGE
CARAMBOLA (STAR FRUIT)	GUAMABANA/SOURSOP	MOHAIR
CARROTS	GUAR	MOLLUSK
CASHEW	GUAVA	MORINGA
CASSAVA	GUAVABERRY	MULBERRIES
CAULIFLOWER	GUAYULE	MUSHROOMS
CELERIAC	HAZEL NUTS	MUSTARD
CELERY	HEMP	NECTARINES
CHERIMOYA	HERBS	NIGER SEED
CHERRIES	HESPERALOE	NONI
CHESTNUTS	HONEY	OATS
CHICORY/RADICCHIO	HONEYBERRIES	OKRA
CHINESE BITTER MELON	HONEYDEW	OLIVES
CHRISTMAS TREES	HOPS	ONIONS
CHUFAS	HORSERADISH	ORANGES
	HUCKLEBERRIES	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.