

# PROJECT STATUS REPORT (PSR)

07/01/2022 - 12/31/2022 - PSR-09473

## PROJECT SUMMARY

Operation number

RG-T3464

Suboperation number

ATN/NV-17700-RG

Project Name

EcoMicro - Carbon, Climate and Coffee: Moving the Needle from Cool Farms to Soil Carbon Premiums

Team Leader

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Executing Agency

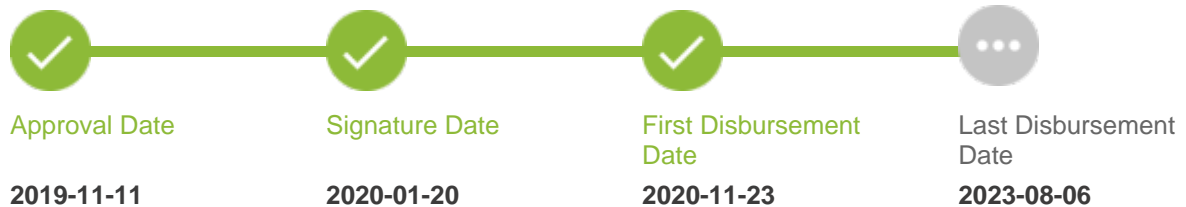
Root Capital

Purpose

To design a carbon premium line of credit for coffee farmers that implement regenerative, organic coffee farming and achieve targeted carbon sequestering "CO2 scores" as a leading strategy for greater climate resiliency.



## Project cycle



## PSR SCORE



- 0 - 1 Red Flag
- 1 - 2 Yellow Flag
- 2 - 4 Green Flag

# LEARNINGS

## 1. Risk and Lessons

### 1.1. Risk

#### 1.1.1. What do you think is the biggest risk that threatens the achievement of the project objectives?

During the first year of this collaborative project (July 2020 to June 2021), Root Capital built and employed an iForm to pilot the collection of offline Cool Farm Tool (CFT)-related data in collaboration with a pilot set of producers across six participating cooperatives (Manos Campesinas, Norandino, COMSA, Pangoa, Sol & Café, and Cenfrocafe). The eventual goal of this work was to create a new, iterated set of questions and answer pre-sets for the CFT's existing perennials module that would be better matched to the reality on coffee farms, and therefore better measure carbon capture and emissions from coffee production. While the availability of this tool is of clear interest to market actors (more information throughout the remainder of this report), the project team members have noted that the biggest risk for the future of the CFT is maintaining interest from the producing side. Below we provide some initial context and project highlights based on each phase of the work, before further explaining the identified risk.

- Phase I: To create the draft iForm, Root Capital worked with Sustainable Food Lab (SFL) to adapt the questions from the existing perennials module of the CFT, updating them so that they would be more relevant for coffee systems. Producers provided feedback about the data collection process.
- Phase II: Root Capital and SFL iterated a second version of the iForm to use for another round of data collection. By the beginning of 2022, the project team had applied the updated iForm in the field, collecting data from 254 farmers in total.
- Data Sharing and Analysis: Root Capital and SFL reviewed phase II data for quality control and analyzed the results before communicating them to project team members and the participating cooperatives in June and July of 2022, via virtual session. Despite some outstanding questions (e.g., certain questions still require more “native” or “local” wording), there is enough confidence in the new questions and answer pre-sets that were tested as part of this project to make them public.
- Next Steps: Cool Farm Alliance (CFA) is moving forward to build out the online and offline version of the drop-down menu for coffee as part of their perennials module. They have confirmed the funding for this work, and expect that the updates will be complete and ready for use by CFT network actors at the end of 2023. Given that CFA is moving at full speed to make the drop-menu public, it is important to keep in mind the producer perspective regarding the tool in order to mitigate the potential risk of lack of farmer interest. During this reporting period, between July and August of 2022, The Chain Collaborative (TCC) worked with Cooperative Coffees to develop and implement qualitative interviews with leaders and staff of the six participating cooperatives. The goal of the interview process was to assess the project experience of producer organizations. In general, the cooperatives understood and believed that being able to quantify their carbon footprint was beneficial for their future. They noted that doing so could help them to better position themselves on the market and that it could open doors for negotiating sales of carbon through various schemes. Additionally, they were energized by the possibility of having an increased understanding of the impact of their own actions, and by the possibility of being able to leverage the knowledge of their carbon footprint to share with certifiers and clients. However, the cooperatives were also aware that carbon accounting is still in its infancy, and while they understood themselves to be frontrunners in the conversation, they noted that to truly encourage ongoing participation/engagement with the CFT even further, their producers needed to begin seeing better returns on their data collection efforts. First, it was suggested that it needed to become clearer to producers how they could be compensated through the CFT—and how this compensation related to the carbon market. Second, they noted that producers should a) be able to visualize on-the-ground impact of potential changes recommended by the tool, and b) be given clarity on recommended upper and lower limits of emissions so they could compare their own emission results to best case scenarios. This feedback demonstrates the importance of ensuring that, moving forward, the

CFT is not only used as a mechanism for companies to report emissions, but also as a mechanism for farmers to improve their practices. SFL noted that ideally, when the tool is being applied in the field with the support of technical teams, these teams can converse with farmers about why their scores are appearing as they are and make recommendations for improvement. Unfortunately, given that data collection for phases I and II of this project focused mainly on confirming the right questions and answer pre-sets for an improved online version of the tool, and given that technical teams were often learning about carbon emission calculation for the first time through this engagement, capacity to recommend improvements to farmers in real time was limited. Relatedly, the project demonstrated that in order for technical teams to leverage the CFT data collection process to make recommendations about best practices, they themselves needed more training on carbon cycling.

## 1.2. Greatest Achievement or Failure

### 1.2.1. What has been the greatest achievement or failure in the last semester that affected the implementation of the project?

Similar to the previous reporting period for this project, this semester saw continued discussion about quality control and data verification. Regarding quality control, the project partners noted that as CFT data is reviewed for quality throughout the entire process of collection and analysis, this can constitute a certain degree of “quality control.” However, the six participating cooperatives also expressed concern that data quality is consistently challenged when their technical teams do not have total clarity on how to answer some of the questions posed by the CFT, and because of the simple fact that input errors are always possible. One cooperative required two individuals to input CFT data for improved data quality, but the project partners noted that such an approach is not entirely scalable. The tool itself can create upper and lower limits for data input in some cases, but there is little else the tool can establish for quality control. Over time, and with improved technical support and use of guidance documents, the project partners hope that there will be improved clarity with regard to the CFT questions, and therefore improved data quality at the cooperative level. Regarding verification, while project partners previously discussed using parallel tools like remote sensing and soil sampling to verify CFT data, these additional approaches were ultimately deemed not cost effective as required verification techniques. Unfortunately, no other verification mechanisms have been identified, which is probably the greatest failure of the project so far. This is especially relevant because when using CFT data for formal emissions claims, answers provided by farmers—when they do not come with another degree of verification—may be unacceptable on the carbon market. Quantis, for example, noted that Geographic Information System (GIS) reporting may be needed to back up farmer claims about land use change (LUC). Understanding how and under what circumstances the CFT can be used toward net zero claims and reporting must thus be an ongoing topic of conversation.

## 1.3. Findings and Lessons

1.3.1. What are the most useful findings and lessons from this project that when taken into consideration could improve the execution and results of existing projects and the design of similar projects in the future? A finding describes an action, circumstance or decision that was critical in determining the positive or negative evolution of the project (for example, switching from the development of a blockchain platform to a web-based shared database reduced the cost and time devoted to implementing the traceability capabilities required by the project). A lesson is a concrete, actionable proposal based on a finding that, in similar circumstances, would facilitate problem solving, risk mitigation, and the achievement of results (for example, Develop guidelines and criteria to identify candidates that could benefit from the implementation of a blockchain platform, and assess during the design if the selected project satisfies the criteria before committing to develop one).

Finding #1: When this project was initially designed, the assumption was that data collection and analysis would lead to clarity on how to compensate individual farmers for their carbon capture. Unfortunately, the results of data collection showed that not all farmers were net sequestering, and taken as a whole, only two of the six cooperatives were net sequestering on average, especially when LUC was taken into account. Because LUC had such an impact on

emissions for the six participating cooperatives, a conversation arose as to the influence and relevance of this category for the coffee sector. It was noted, for example, that cooperative members manage their coffee and forest plots in ways that are very country- and context-specific. One of the cooperatives in Peru, for instance, explained that decades ago, many of their farmers began to occupy land that had been previously deforested by other actors. While previous deforestation of land (even when that deforestation happened at the hands of previous owners) has a scientific impact on the land's current carbon emission and sequestration scenario, it was not clear to the project partners whether farmers should be responsible for these emissions in an ethical sense. Additionally, this same cooperative noted that some laws in Peru require farmers to deforest land in order to occupy it and receive a land title, and that the country promotes the establishment of specific forest lots separate from coffee-plots that the perennials module of the CFT intentionally does not account for as they are considered outside the boundary of the coffee farm. Given these above realities and more, Cooperative Coffees believed that at the present time, it was better to use their premium funds to compensate the cooperatives per pound for participation in this project, and decided on an initial participation reward of \$0.03 per pound for all coffees purchased by their roasters from the six cooperatives. This translated to about 4.5 million pounds of coffee, or approximately \$135,000 total spread out across the six participating cooperatives. Of note, while the initial goal amount for premiums was \$200,000, this was only an estimate at the beginning of the project. Cooperative Coffees had always planned to confirm premiums based on Cool Farm Tool results and other market considerations. For this reason, the total amount provided to cooperatives was lower than anticipated. However, Cooperative Coffees plans to continue providing premiums to the participating cooperatives for their environmental services each year/harvest season, so over time, the amount provided will increase.

**Finding #2:** As of the last report, all data collection with cooperatives was complete, and the project partners were successful in both reviewing data from the field and analyzing it for emissions results. In terms of system compatibility, the cooperatives voiced concerns that many questions in the iForm overlapped with questions relevant to their internal inspections for organic and other certifications. One concern was that such overlap could disincentivize producers from using the CFT going forward if they felt that they were being asked too many of the same questions over and over again. At the beginning of the project, Root Capital did look into the possibility of not creating a new iForm but rather building off existing certification-related data collection systems; they considered first identifying common—or shared—questions and then adding only new questions that were additionally required by the CFT. However, the team found that there was minimal overlap (less than 10% of questions) and determined a separate survey would be the simplest path forward.

**Lesson #1:** Related to the first finding, during this reporting period and especially during the closing workshops, the participating cooperatives revealed that in general, paying any farmer individually for their carbon capture was not ideal. The cooperatives noted that they preferred to apply premiums to project-based work, in order to increase resilience to climate change for producers overall. This is in part because the cooperatives recognized that even when taken to scale, given cost and time constraints, the CFT could only be applied with a small number of farmers at a time, and thus would ignore other farmers also doing great work to sequester carbon in their fields. As a result, the cooperatives suggested it would be better if payment was instead shared amongst everyone in some form. Doing so would also remove the incentive for cooperatives to only measure the fields of their best performers—which, if used to present a cooperative average, would skew their data. The cooperatives also understood that sequestering carbon in most cases requires best practice adoption, which some farmers need more training to do, or more resources to do. This can be especially true for female farmers. As a result, in order to support equity and integrity in measurement and related follow-up, the cooperatives noted that it was important to build policy that went beyond rewarding best performers, and rather increased performance overall; best performers could be rewarded in additional ways, either via recognition and leadership, and/or by serving as trainers. Lastly, the cooperatives themselves spent a lot of time conducting the data collection for this project, and in some cases, they had to hire additional staff to keep up with the work. They thus suggested that part of any premium would need to go to cooperative staff to cover their costs.

**Lesson #2:**



As mentioned in previous reports, the full gender assessment of each cooperative has already been completed in both English and Spanish, and a shortened, summarized version of the report has also been completed. These were shared with the cooperatives during the first year of the project. The larger report focused on the basic gender make-up of the cooperatives and the experiences of female members to date. It also made recommendations about how to best take gender equity into account during the application of the CFT. The shorter report focused mainly on how to take gender equity into account throughout the lifetime of the CFT project. During this reporting period in particular, as mentioned, members of the project team conducted interviews with each cooperative to discuss their experience of the project so far; such discussions also took place during the closing workshops. At this time, the cooperatives were able to share their gender considerations for the project and for the CFT in general. Their main point of feedback was that very often, the people who were best able to answer the questions for the iForm were the female members of farming households. In many cases, the cooperatives noted, the male family members—even those who held the land title—were not aware of how to answer certain questions. Project team members thus noted the importance of ensuring that all family members are present in training related to the CFT—and present during data collection—as those most responsible for the related activities are not always the male farm owners.

## **2. Scalability and replicability**

### **2.1. Scalability Plan**

2.1.1. Now that the Project is in the execution phase, have you developed any concrete plan or action that will allow it to reach a greater number of users/clients/beneficiaries (or broader environmental or resilience to climate change and natural disasters impacts) in the future?

During the next and final reporting period, the project partners plan to develop a public-facing report that can highlight lessons learned from this project and provide guidance for coffee industry actors wishing to use the updated version of the CFT perennials module in the future (once it becomes officially available). In this public-facing document, the project partners plan to a) highlight the upgrades the project contributed to and b) offer insight into data collection and data interpretation. The document will also make policy suggestions, and express how companies and producers can potentially use the CFT to make emissions claims as well as payments to farmers for eco-system services. In particular, the project partners will highlight the following in the report: -The issue of productivity. Often, the more productive (i.e., lucrative) a farm is, the more emitting it can be. This does not always have to be the case, but it is important to highlight these complications when making recommendations about the use of the CFT and how to leverage it for decision-making. -Ongoing, parallel research that is helping to improve the CFT. Currently, there are still questions related to water usage and wastewater emissions reporting, and CFA is conducting additional research to answer some of these outstanding concerns. -How to best highlight good agricultural practices that have either a) no impact on GHG emissions, or b) a negative impact (such as the use of fertilizer and compost). Also, how to interpret the impact of residue management and biochar—two things that were of interest to cooperatives. -The fact that cooperatives and others are still looking for the best approach to scale, based on client demand and a cost-benefit analysis. In other words, cooperatives want to understand how the CFT can lead to equitable means of compensation without burdensome data collection. In short, the public-facing report will highlight lessons learned as well as ongoing challenges and questions, and it will recommend continued dialogue among industry actors so that these concerns can be addressed in future collaborative projects. It will share the importance of this project in supporting CFA to make the drop-down menu for coffee available as part of the perennials module. Indeed, this is perhaps the most relevant aspect of scale. As such, the public-facing report will be an important document, especially given that the future of some other outputs are still in-flux. As noted in the previous reports, during the first 18 months of this collaborative project, Cooperative Coffees collaborated with Root Capital and SFL to develop a user guide that would support cooperatives to better understand how to collect data for the iForm while they were in the field. The user guide was developed in both English and Spanish in time for phase II, and served as an additional

resource for producer organization staff while they were applying the CFT. As of the previous report, some participating cooperatives noted that the user guide was very useful. Improvements, however, were recommended, in order to provide greater clarity on how to answer certain questions. Unfortunately, during the qualitative interviews with the cooperatives, some producer organizations noted that they did not employ the user guide or lacked awareness of it. This points to a potential breakdown in communication throughout the life of the project, and it means that the dissemination of any user guide would need to be improved in the future. The project partners also noted that it would be particularly critical going forward to make updates to the user guide based on feedback provided by the cooperatives themselves. In particular, the cooperatives pointed to the fact that the user guide should support technical assistants to better communicate with producers about how the CFT works. They also wanted to be able to share how it differs from other models. Of course, such updates will need to be a part of a future project iteration, as while the project partners considered improving the user guide during this current iteration, ultimately it was decided that this was not relevant. Further development of the existing user guide would only make sense should more companies or organizations want to use iForm to collect data in the future, or should Root Capital plan to scale the use of the CFT-related iForm with their clients. Because Root Capital is still planning their next moves with regard to the CFT, and because it is not clear that all future users of the CFT (company or cooperative) will want to use iForm in particular for CFT-related data collection, the current state of the user guide was deemed appropriate for the time being. Once the coffee-specific specifications for the CFT are taken to scale, CFA's own guides will be adapted to better support users, leveraging additional financial support from their network. Should Root Capital decide to engage further with the CFT, they can thus rely on CFA's updates to improve their own user guide for clients and funding partners.

## 2.2. Costs and Partners to Scale

2.2.1. Now that the project is in the execution phase, do you know how much it costs to offer your product / service per user / client / beneficiary? Is this a factor that could affect reaching a greater number of users / clients / beneficiaries in the future? Has any public or private institution requested this information from you, looking for scaling or replicating the model / product / service?

As mentioned, SFL has already secured the funding they need to build the new tool features and ensure its coffee-specific specifications can be programmed into the web version of the CFT. These funds have been made available by a variety of industry partners. Once the updates are completed, access will be granted to all paying CFA members, who can then share the tool with their supply chain partners and cooperative allies. Individual farmers will additionally have access to five free assessments. At present, the cost to CFA members does not seem prohibitive, nor does it seem to be a risk factor for future use. The interest of private institutions to fund the technical upgrades instead demonstrates a market willingness to pay for this solution. However, the question still remains as to the willingness of origin actors to continue engaging. As noted several times in this report, cooperatives, and in particular producers, are requesting greater detail about a) what their emission profile means, b) how they can improve, and c) where they can improve (i.e., under what emissions categories). Producers would like to be able to visualize whether their emissions per category are lower than average or higher than average—and if the latter—how they can reduce. Developing a system or methodology to provide this kind of detail may likely be part of a phase III of the project and will of course require collaboration with cooperative technical teams. However, it is perhaps important to note that unless their needs are met—and their other questions answered—cooperatives and producers might assume that the costs of data collection for the CFT outweigh the benefits. Of note, parallel to this project, Root Capital has been working with other funding partners to pilot both a new loan and grant product for climate action. These products derive in part from Root Capital's climate finance innovation agenda, launched in 2020, which reviewed climate finance needs and opportunities within their Latin American coffee portfolio. To build the new grant product in particular, Root Capital leveraged their small grant infrastructure to launch "Resilience Grants" to a) meet urgent cash flow and crisis-related

needs, and b) incentivize adaptation plans/actions that are harder to fund given their experimental nature. In 2021 and 2022, Root Capital disbursed a total of \$275,000 USD spread across the participating cooperatives in this project—alongside others in Latin America—in order to support their adaptation plans and to cover costs associated with the application of the CFT. The participating cooperatives may be able to leverage more Root Capital funding for their adaptation plans in the future (which were updated during this project’s closing workshops, more information below), but it is important to note here that there is indeed a cost to data collection that will need to be covered should the cooperatives aim to take the CFT to scale.

## 2.3. Facilitating or Hindering Factors

2.3.1. Has any of these factors affected the number of users/clients/beneficiaries (more/fewer) reached by the project compared to what was originally planned (or environmental or resilience to climate change and natural disasters impacts)?

[Complexity of the solution (high number of actors involved/interaction of many parts/components), Market size that could be reached, Proposed solution responds to key/persistent/priority problem]

## 2.4. Scalability Scope

2.4.1. How feasible it is that the organization could reach a number of users/clients/beneficiaries 5, 10 or 100 times the number originally planned in the project design, five years after the project ends?

[It could reach more than 100 times the number of users/clients/beneficiaries originally planned in the project design five years after its closure.]

2.4.2. How likely is the organization to reach that number five years after the project ends?

[Highly probable (above 90% chance)]

## 2.5. IDB Group business relation

2.5.1. Has a business relation been created with another part of the IDB Group different from IDB Lab?

No additional business relationship has been created with another part of the IDB Group different from IDB Lab as a specific result of this project.

## 2.6. Replicability Partners

2.6.1. Are you aware of any other entity at a national or international level that has copied / replicated completely or partially the business model of the project? Did you collaborate in the process with that entity?

[No]

If Yes, Explain

At this point, the project partners are not aware of any other entity that has copied or replicated the exact CFT model. However, similar to the last reporting period, this reporting period saw a lot of discussion about parallel efforts taking place to support emissions and removals tracking at the farm level, in order to support claims and payments for ecosystem services. Perhaps the most exciting update to share in this regard is that throughout 2022, the project partners were invited by Rabobank to submit a case study to the GHG Protocol (GHGP) alongside the Acorn platform. The goal of the case study was to share guidance on how to pay individual farmers for their carbon capture using the CFT as the measurement tool/methodology. This was a huge opportunity for the project partners, as GHGP sets the standard for emissions tracking globally; the outcomes and recommendations of this project could thus set important precedent for carbon premium payment. Despite premiums ultimately being used for this project in ways that differed from the project’s initial expectations, the project partners believe that they can still support other industry actors in understanding how individual farmers can best be compensated for their environmental services.

## 2.7. Replicability Scope

2.7.1. Number of users / clients / beneficiaries reached by entities that have fully or partially replicated / copied the business model / products / services implemented with the support of the project?

[Less than 2 times the number of users / clients / beneficiaries planned in the original project design]

2.7.2. Have you experienced, in the last year, significant expansion (50% or more) of the reach of the business model of the project beyond what was expected in the original project design (due to increasing of the organizational size, operational scope or geographic spread)?

[No]

2.7.3. Number of users / clients / beneficiaries reached as of the end of the year?

[Less than 2 times the number of users / clients / beneficiaries planned in the original project design]

## 2.8. Sustainability

2.8.1. How do you think the project will continue once the IDB Lab financing ends? Examples: it has identified external financing sources to continue operating, it has reached the breakeven point through the sale of services and products, it has obtained the support of public institutions or the private sector, it will adjust the business model to remain viable (via franchises, etc.)

Without a doubt, the CFT will continue to be leveraged by a variety of coffee sector actors going forward, especially once the new coffee-specific specifications are made available to CFA network actors. In preparation for this launch, at this point in time, the goal of the project partners is to continue sharing lessons learned from the project, and encourage ongoing financing and collaborative initiative to answer outstanding questions about how best to use and leverage the CFT for claims, reporting, farmer payments, and improved practice. To this end, Cooperative Coffees held an internal webinar in December 2022 to share the final phase II results of the CFT project with their individual cooperative members. At this time, Cooperative Coffees' roaster members also discussed how the results related to their own net-zero commitment, and they proposed ways forward for leveraging the CFT as part of their impact fund and broader climate justice efforts. Meanwhile, Melissa Wilson, Cooperative Coffees' Impact Manager, joined a webinar held by the Specialty Coffee Association (SCA) in early December 2022. This webinar sought to highlight a recent carbon and coffee report that was published by SCA in partnership with TCC and Whittier College. Because TCC highlighted Cooperative Coffees and the CFT project in the publication, SCA invited Melissa to share more about Cooperative Coffees' existing efforts during the one-hour event, alongside Caravela Coffee and RCG, who also use the CFT. Another exciting development that happened during this reporting period is that SFL was able to complete a final results report for the CFT project. The document first provides an overview and history of the CFT's perennials module and is followed by a summary of the goals of this specific project (i.e., the development of new coffee-specific elements for the perennials module). The report then includes an explanation of the survey design and data gathering process used for the project, with a summary of how the survey sought to capture information related to the following data inputs: parcel size, fertilizer use, coffee and shade tree density, residue management, pruning, wastewater, and transportation. Each cooperative's data for each of these categories are then offered in graphic and narrative form. Next, the report shares how the data translates to emission results, and each cooperative's emission scenario is provided in aggregate. The document leverages this information to then define a) the largest drivers of emissions on coffee farms, b) opportunities for reduction, and c) ongoing areas of uncertainty. Overall, the report shares the potential for carbon sequestration on coffee plots and offers insight into how various sector-wide actors can interpret the specific data points that are collected by the CFT. This report will serve as a critical input to the development of the final public-facing report, which will encourage ongoing use of the CFT beyond the lifetime of this project.

## 3. Implementation

### 3.1. Facilitating or Hindering Factors



3.1.1. What specific aspects have (positively or negatively) affected the implementation of the project the most?

[Coordination with third parties, Complexity or breadth of the proposed activities, Public recognition / award]

3.1.2. Explain in detail how these factors that you identified have made the implementation of the project easier or more difficult

**Hindering Factors: Complexity and Coordination** As mentioned several times throughout this report, the major challenges of this project have been a) the complexity of data collection for the CFT and b) the primary focus being on coordinating with cooperatives to confirm the best questions and answer pre-sets for coffee systems rather than on improving practice. This complexity and focus delayed the results analysis and reduced time spent on making the results public in a timely manner. However, as of the previous reporting period, SFL did work with both Root Capital and Cooperative Coffees to develop an aggregated fact sheet for each cooperative outlining their emissions, as well as individual producer profiles. During the closing workshops, the cooperatives noted that they would have appreciated if these fact sheets—especially the individualized ones—had provided more detail and direction on how producers could improve their scores. At present, the CFT project team is thus discussing ways to make these sheets more user-friendly as well as public-facing. Ideally, insight into the former can inform a potential future phase of this project, whereby project partners could pilot the development of improved fact sheets that could a) be shared with producers and b) be created and/or leveraged by technical teams who are using the CFT. Regarding the latter, based on the aggregated and individual farmer fact sheets created by team members, Cooperative Coffees plans to develop photo stories, producer profiles, and marketing materials for this project in order to place this information on their new website. This work will take place during the next and final reporting period. The goal of making the results public via public-facing fact sheets is that industry actors will better understand the emission scenario of small, organic farming conducted under agroforestry systems. Ideally, industry actors will be more encouraged to finance adoption of similar practices, especially if this would support their net zero and/or carbon neutral efforts and/or claims. Of course, Cooperative Coffees will need to keep the rules of data sharing in mind, ensuring data is only shared in aggregate among all cooperatives, and that individual names are not shared unless permission is granted.

**Facilitating Factors: Public Recognition/Award** While the project partners worried that delaying the publication of results from the CFT project would reduce market demand or interest for the solution, they were able to maintain public recognition through a variety of outreach opportunities. During this reporting period in particular, the following activities took place: -Cooperative Coffees hired a videographer to attend the October closing workshop and film for a 3-5-minute video. During this time, the videographer spent time filming B-roll on coffee farms and otherwise interviewed several of the cooperative participants as well as members of the CFT project team. Based on script guidance from Cooperative Coffees, the videographer then developed a final version of the video. -TCC authored a blog post on the gender considerations for the CFT project, available [here](#), while Daily Coffee News (DCN) published an article about Cooperative Coffee's climate efforts to date, available [here](#). Naturally, the CFT project was mentioned in the DCN article, and some preliminary results of the phase II data collection process were shared. Also, during this reporting period, the project partners collaborated on the development of a blog post to share phase II results more broadly and robustly. The plan is to publish this results-oriented blog post during the next and final reporting period. -Cooperative Coffees applied to present at the B Corps Champions Retreat, taking place at the end of November/early December 2022 in Philadelphia, Pennsylvania. While the larger panel proposal was not accepted, B Corps did ask that one of the producers from COMSA present on climate justice. Fredy Perez accepted and was present at the conference in Philadelphia, and spoke about how agroecology, agroforestry, and small producers are contributing to climate justice. He also mentioned the CFT and explained how using this tool for carbon measurement and reduction was part of best practice. -Monika Firl participated in a conference in Seoul, where she was able to describe the CFT, highlighting the challenges of its use. She also highlighted the incredible learning that took

place as a result of this project, and encouraged ongoing conversation about the CFT. -Project partners applied to present a panel at the Specialty Coffee Association (SCA)'s upcoming Global Coffee Expo, taking place in Portland, Oregon, USA at the end of April 2023.

### 3.2. Novel Technologies Factors

3.2.1. If the project makes use of novel technologies or methodologies, what factors have facilitated or hindered the implementation of the technological solution initially proposed by the project?

[Previous experience of the executing agency / client with the technology, Access to subject matter experts by executing agency/client, Public recognition of the innovation of the project, Interest from industry experts or academics outside the executing agency / client, Interest from other companies / government in the technology]

## 4. Development Outcomes (Quantitative)

4.0 Has your project contributed to any of the following indicators in the last 12 months (last year)?

[4.6. Not contribute]

## 5. Development Outcomes (Qualitative)

5.1. Target population identified in the design

Is the target population that was identified in the design being reached by the project? Select the target population actually reached by the project that was originally identified in the project design.

[SMEs, Women, Rural population]

5.2. Population served NOT identified in the project design

5.2.1. Select if there are Groups that were NOT originally identified in the project design but are being reached in the execution phase?

[SMEs, Women, Rural population]

5.3. Facilitating or Hindering Factors

5.3.1. Factors that have affected (facilitated or hindered) reaching these groups, or the resilience/environmental impacts, in the numbers/dimensions that the project had originally planned.

[Adaptation of the product/service to the needs of the clients/users/beneficiaries, Communicating to customers/users/beneficiaries the advantages of the products offered]

5.3.2. Explain in detail how these factors that you have identified have affected the ability of the project to reach the groups (achieve resilience/environmental impacts) in the numbers/dimensions originally expected

Facilitating Factors: Communicating to customers/users/beneficiaries the advantages of the products offered and Adapting the service to their needs In addition to conducting the qualitative interviews with cooperatives, this reporting period also saw the project team partners leading two closing workshops in northern Peru to discuss project learning and the advantages of the CFT in general. The first workshop was held in Piura from September 8-11 and was hosted by Root Capital. At this time, the technical teams and key decision makers of each of the six participating cooperatives were brought together to discuss their CFT data and develop plans to either reduce their emissions or sequester even more carbon. In total, 23 representatives from the six participating cooperatives were present, in addition to 10 members of the Root Capital team. On the first day of the three-day event, Root Capital provided a lecture about the carbon cycle and the ways in which coffee is generally considered to contribute to greenhouse gas (GHG) emissions. The Root Capital team then explained how the CFT works to measure emissions as well as to identify opportunities for reduction. Next, representatives from SFL presented the CFT results of each cooperative virtually, and cooperative staff were able to ask questions about their data and exchange lessons learned. Some key takeaways from the first day were that the cooperatives wanted to focus more on data quality and farmer selection should the CFT be scaled, and they wanted more training on the background of carbon cycling. They also noted that they wanted more information on how

CFT data would or could relate to certification, and they were interested in understanding how to combine the CFT with other models that required less time spent on shade tree measurement. The second and third days of the workshop focused on building climate investment plans based on best practice analysis, climate risk analysis, and the CFT results. Root Capital first provided training on climate risk assessment/analysis, and each cooperative then worked together to develop and present their climate investment plans. Root Capital was also able to lead a discussion on the cooperatives' ongoing climate-related concerns, the cost and benefit of certain tools or approaches, and the practices that are the most important to continue promoting. Next, in October, the cooperatives once again came together in northern Peru, this time for a three-day event in Jaen hosted by Cooperative Coffees. In total, there were 37 attendees present, including cooperative staff, project partners, and some of Cooperative Coffees' roasters. The first day focused on the sharing of lessons learned from the project, and each cooperative was able to present in plenary their best agricultural practices and how these practices related to their CFT results. The first day also saw a presentation from Kathleen Draper from the International Biochar Initiative; Kathleen discussed the uses of biochar and the potential it holds for soil health and carbon emission reduction and sequestration. Meanwhile, on the second day of the event, all participants visited a Sol y Café affiliated producer who was a part of the CFT project and had provided data related to his parcel. During the visit, Sol y Café led a question-and-answer session with the producer, which allowed event participants to understand his practices and experiences with the CFT project to date. Then, in the afternoon of the second day of the event, Kathleen led a field demonstration on how to create biochar. Finally, on the third and last day of the event, participants discussed the possibility of scaling the CFT and developed related action plans, and they also heard from Jose Zarate, an expert on agroecology. Overall, key takeaways included the challenges of data collection, and the importance of supporting technical teams to collect the most relevant data and leverage this data to provide improved field-level assistance. To this end, Cooperative Coffees also suggested that farmers and cooperatives need to be more involved in the development of future CFT surveys before they are tested, and that technical assistance packages need to be adapted and improved in order for cooperatives to truly be able to use the CFT for decision-making rather than only claims. The project team members believe that creating time for these discussions has ensured that the cooperatives understand the advantages of the CFT, and that it can be adapted to their needs going forward. This will only serve to reach more beneficiaries in the future.

## INDICATORS

 Overachieved
  Achieved
  Pending
  In process
  Overdue

### C1: Implementation and Adaptation of Data Tools

**Weight:** 40%

**Qualification:** High Satisfactory














100%

Indicators	Planned	Achieved	Status
I1	1 ( 2021-01-20)	1 ( 2021-04-30)	
I2	2 ( 2023-01-20)	2 ( 2021-12-31)	
I3	12 ( 2023-01-20)	16 ( 2021-12-31)	
I4	275 ( 2022-01-20)	355 ( 2022-01-31)	
I5	1 ( 2021-01-20)	1 ( 2021-07-29)	

## C2: Carbon Premiums and Knowledge Management

Weight: 40%




Qualification: High Satisfactory

61%		39%	
Indicators	Planned	Achieved	Status
I1	250 ( 2022-01-20)	254 ( 2022-06-30)	
I2	200000 ( 2023-01-20)	135000 ( 2022-06-30)	
I3	15000 ( 2023-01-20)	15000 ( 2022-12-31)	
I4	12500 ( 2023-01-20)	11684 ( 2022-12-31)	
I6	Report on GHG emissions avoided through adoption of regenerative, carbon-sequestering organic practices	2 ( 2023-08-06)	
I7	250 ( 2023-01-20)	254 ( 2022-12-31)	
I8	6 ( 2023-01-20)	6 ( 2022-12-31)	
I9	24 ( 2023-01-20)	28 ( 2022-10-31)	
I10	1 ( 2022-01-20)	1 ( 2023-01-31)	
I11	400000 ( 2023-01-20)	445200 ( 2023-01-31)	
I12	15 ( 2023-01-20)	6 ( 2021-12-31)	
I13	1 ( 2023-01-20)	2 ( 2022-10-31)	
I14	Report on tonnes of carbon sequestered through adoption of regenerative, carbon-sequestering organic practices.	2 ( 2023-08-06)	

## C3: Monitoring and Evaluation

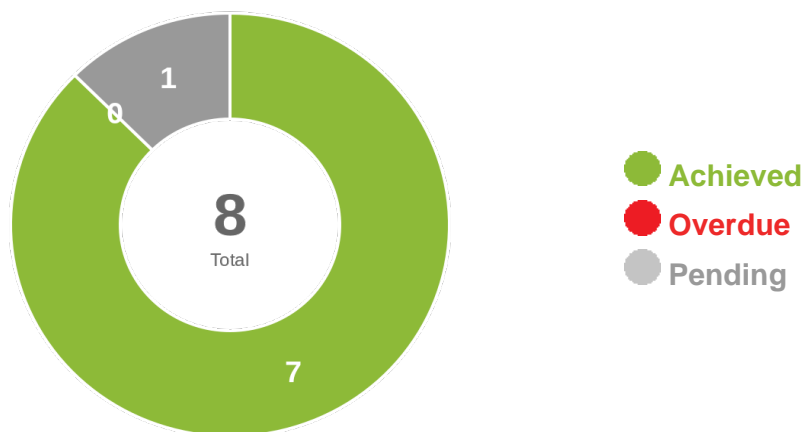
Weight: 20%

Qualification: High Satisfactory

33%		67%	
Indicators	Planned	Achieved	Status
I1	5 ( 2023-01-20)	4 ( 2022-07-31)	
I3	1 ( 2021-01-20)	1 ( 2021-08-06)	
I2	1 ( 2023-01-20)	Yes ( 2022-07-29)	



## MILESTONES



Milestones	Achieved Value	Due Date	Achieved Date	Status
*Cool Farm Tool data collection system created	1	2021-08-06	2021-06-10	✓
*Initial tool testing with farmer participants completed	50	2022-02-06	2021-07-29	✓
*Application of CFT to 200 farmer participants	200	2022-08-06	2022-01-31	✓
*Organizational climate risk assessments conducted	1	2023-02-06	2022-12-31	✓
*Final learning exchange completed	1	2023-08-06		...
*Cumplimiento de condiciones previas estipuladas en el convenio / Compliance of p	1	2021-02-06	2021-01-11	✓
*TC Agreement signed with New Executing Agency	1	2021-02-06	2020-08-04	✓
*Plan of Operations developed	1	2021-08-06	2020-10-19	✓