



Miller Center
for Social Entrepreneurship



NUCAFE

Training Toolkit



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EXECUTIVE SUMMARY

Coffee farmers often do not know what happens to their crops when selling at the *kiboko* stage. As a result, coffee farmers are not reaping the full profit for the cash crop they are growing. The lack of education around proper coffee farming techniques result in poor-quality coffee, which also causes farmers to lose out on the highest profit for their crop. This lack of education hinders farmer agency and financial stability. NUCAFE addresses this problem by training farmers on agronomical practices, post-harvest handling, value addition, access to finance, family business management, and succession planning. Despite training efforts, the farmers are not progressing toward taking ownership of their coffee as effectively as NUCAFE would like. We engaged and analyzed their trainings to develop better training methods that would achieve greater agency and education for their farmer network.

We observed and attended 5 trainings run by NUCAFE and engaged with over 100 farmers in 7 cooperatives to understand the effectiveness of the trainings and education system as a whole.

Actively participating in the trainings and conducting group interviews with the farmers, we found that the standard lecture-based trainings resulted in low engagement and attention span from farmers. We also found that there is minimal documentation of the trainings and virtually no assessment measuring the effectiveness of trainings, both of which hinder NUCAFE's ability to decide where to spend its resources in educating their farmer network.

We created a training toolkit that consists of a curriculum framework, video training guide, and two assessments, one baseline survey and one post survey. We recommend the curriculum framework and video guide be adopted for the new training center and for general Cooperative and Association trainings. We also recommend translating and distributing the video to all Secretary Managers and Business Leaders on their respective laptops. Each cooperative will benefit greatly from having access to a video repository via DVDs and smartphones. The baseline assessment should be given to students at NUCAFE's training center and its farmer network; it measures the knowledge they have before attending trainings. Giving the post survey 6 weeks after receiving training and then again 12 weeks after receiving training will convey how much knowledge was gained and retained and what specific elements of the training produced the greatest learning gains.

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Curriculum Framework



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Introduction

One of NUCAFE’s key operations is agricultural extension training. NUCAFE is seeking to implement new and innovative ways to train its farmer member base. As part of this initiative, NUCAFE is building a training center (CEC) at the factory to train cooperative leaders, hub managers and TOT’s. This framework will be the basis of the curriculum for the center.

The goal of this training curriculum is to change the way NUCAFE thinks about its approach to farmer learning. To further NUCAFE’s impact, we have created a curriculum framework that uses innovative teaching and learning practices to enhance the farmer learning experience . The overall goal of the curriculum is to increase farmers’ agency and engagement with the Farmer Ownership Model (FOM). This curriculum can provide an effective basis for communicating NUCAFE’s mission. This framework will not only aid coffee farmers in becoming more entrepreneurially minded, it will help them in profitable owning their coffee along the value chain. This will enable farmers to have more sustainable livelihoods and greater customer satisfaction leading to faster societal transformation.

| Current Problems with Trainings | Proposed Solutions with Curriculum |
|---|--|
| Long lecture-based trainings with minimal visuals lead to low engagement and boredom among farmers. | Short 15-30 minute lectures will be implemented followed by participatory active-learning activities with many videos and visuals. |
| Farmers have little to no access to materials after participating in trainings. | Cooperatives and Associations will have ongoing access to training videos, case studies, and assessments through a digital portal. |
| NUCAFE lacks the tools to measure farmer learning and the effectiveness of its trainings. | Digital assessments are included in the training tool kit along with recommendations for how and when to use them. |

The framework of the curriculum covers 6 topics: the Farmer Ownership Model, Governance and Leadership, Production and Productivity, Family Business Management and Succession Planning, Value Addition, and Marketing. Within each of these topics, there are 3-4 subtopics.

We have created a sample training module for Entrepreneurial Behavior, a subtopic of the Farmer Ownership Model. NUCAFE can use this model as a template as they fill in the content of the other five teaching modules/topics.

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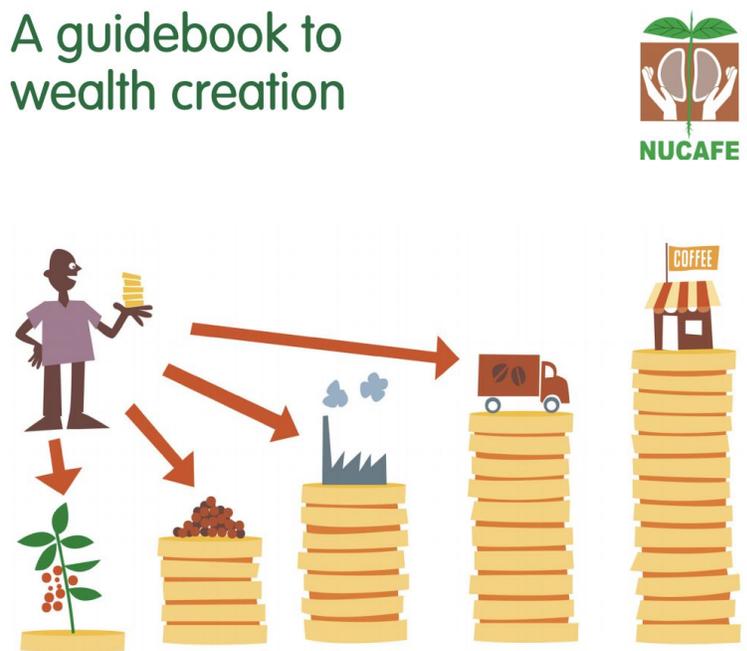


Educational Approach

We set out with the goal of increasing farmer agency. In order to achieve this goal, we worked backwards to understand what needed to change in the current system. How did farmer attitudes need to shift? What habits are necessary? What skills? These were the guiding questions that framed the new approach to farmer extension. Two main educational approaches have been utilized: a learning-based outcomes-driven model, and an experiential active-learning approach.

We choose to use a learning-based outcomes-driven model in order to get farmers excited and engaged in this material. In this approach, you are not just educating the farmers purely for the sake of education; you are educating them about specific things to solve specific problems. That entails that you identify the problems you want to solve first, then create your learning objectives and outcomes to solve those problems. In turn, the learning activities (lectures, discussions, projects, etc.) are based on those learning objectives.

We choose to use an experiential active-learning approach. Rather than lecturing or having people read a lot of things, you are engaging people in practices that involve them directly in the things you want them to learn.

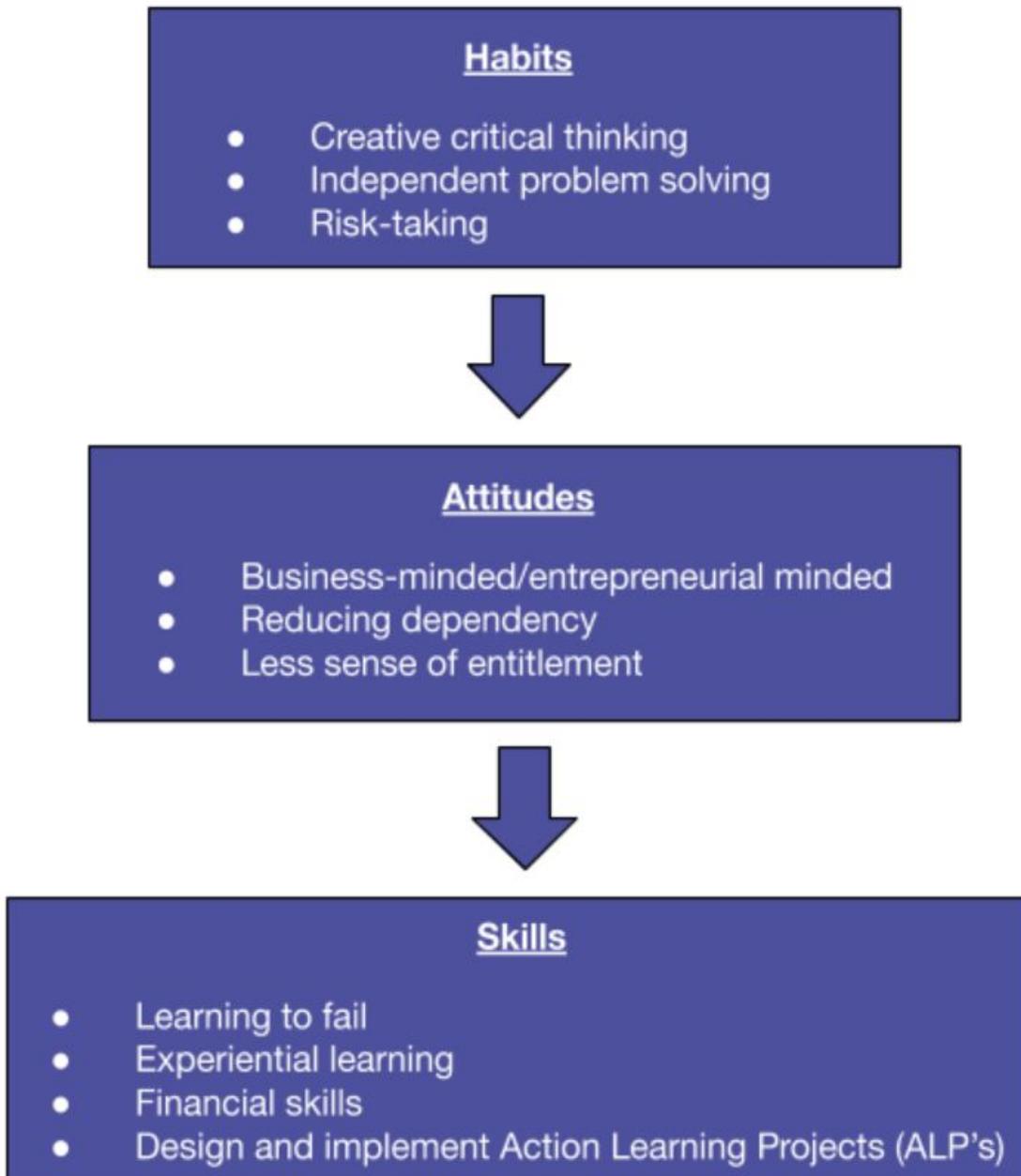


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Objectives and Learning Outcomes:

Overall Goal: Increase effective engagement with FOM through farmer agency.



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Methods and Design:

OVERVIEW & PURPOSE:

- 1) To create entrepreneurs and changemakers in the coffee sector of Uganda
- 2) To create business-minded individuals
- 3) To Increase the flow of knowledge through NUCAFE's cooperative/association network.

The basic structure of workshops:

- Opening local song and dance
- 15-30 minute lectures
- 45 min working (usually small groups)
- Break (lunch, ice breakers, singing and dancing)
- Action of some kind
- Site visit/experiential learning
- Assessment and evaluation
- Closing song and dance

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Training Videos and Assessments

How do Videos and Assessments Fit in?

Videos:

We created 45 training videos in the field to supplement/complement lecture-based training. We were fortunate to field test videos with three different cooperatives. Farmers reacted very positively to this new form of delivery. In our sample lesson, we have embedded videos to show how to include them during trainings. We recommend that the videos become a regular tool used in combination with in person instruction. Having unlimited access to the videos whenever farmers need them will increase independent learning and further increase agency.

Assessment Tools:

We have created assessment tools to measure farmer learning and cooperative productivity. Currently NUCAFE conducts a lot of training to farmers but is unaware what is effective or what information farmers are retaining. NUCAFE can visit farms to see if agricultural practices are being adopted, however implementing assessment tools will save time and resources. The assessment tools will be included in the new curriculum framework to measure farmer learning pre and post lesson. It will be important to capture baseline knowledge prior to starting trainings. We recommend that NUCAFE administers a post assessment directly after training workshops, and another one 1-2 months after the initial training.

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Framework

| Module | Topic | Subtopics | Total Duration |
|--------|-----------------------------|--|---|
| 1 | Farmer Ownership Model | <ul style="list-style-type: none"> • Entrepreneurship Behavior • Financial Sustainability • Gender Equity | <ul style="list-style-type: none"> • 3 hours • 3 hours • 3 hours <p>Total: 9 hours</p> |
| 2 | Governance and Leadership | <ul style="list-style-type: none"> • Local Government • Regional Government • Cooperative and Association Structure | <ul style="list-style-type: none"> • 2 hours • 2 hours • 2 hours <p>Total: 6 hours</p> |
| 3 | Production and Productivity | <ul style="list-style-type: none"> • Climate Resilience best practices • Entrepreneurial Risk Taking • SACCOS | <ul style="list-style-type: none"> • 3 hours • 2 hours • 2 hours <p>Total: 7 hours</p> |
| 4 | Family Business Management | <ul style="list-style-type: none"> • Gender Equity • Youth Engagement • Diversifying sources of Income | <ul style="list-style-type: none"> • 2 hours • 2 hours • 2 hours <p>Total: 6 hours</p> |
| 5 | Value Addition | <ul style="list-style-type: none"> • Quality Control • Post-Harvest Handling • Certification Schemes | <ul style="list-style-type: none"> • 3 hours • 3 hours • 2 hours <p>Total: 8 hours</p> |
| 6 | Marketing | <ul style="list-style-type: none"> • Coffee Markets 101 • Marketing your Coffee • Customer Satisfaction | <ul style="list-style-type: none"> • 2 hours • 2 hours • 2 hours <p>Total: 6 hours</p> |

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Sample Lesson Plan

Title of course: Entrepreneurial Behavior (FOM)

Duration: 3 hours

Location: CEC Training Center or Cooperatives and Associations

Aims of the course: Train Cooperative leaders, Hub managers, and Trainers of Trainees (TOTs) to become independent problem-solvers. The module will provide participants with an entrepreneurial foundation to independently solve issues that arise along the coffee value chain.

Participants can: Design, Implement, and complete Action Learning Projects (ALP's)

| Module | Topic | Session | Total Duration |
|--------|---------------------------|--|----------------|
| 1 | Community Gathering | <ul style="list-style-type: none"> ● Local songs ● Dancing ● Blessing | 15 minutes |
| 2 | Personal Goals/ALP's | <ul style="list-style-type: none"> ● Define PG's ● Introduce ALP's | 30 minutes |
| 3 | Experiential Learning | <ul style="list-style-type: none"> ● Case studies ● Group presentations | 1 hour |
| 4 | Lunch/Break | <ul style="list-style-type: none"> ● Games ● Everyone eats together | 30 minutes |
| 5 | Entrepreneurship Basics | <ul style="list-style-type: none"> ● foundation/definitions ● On the Farm | 30 minutes |
| 6 | Assessment and Evaluation | <ul style="list-style-type: none"> ● Surveys ● Evaluation and feedback | 15 minutes |
| 7 | Closing Ceremony | <ul style="list-style-type: none"> ● Thanks ● Songs/dance ● Blessing | 10 minutes |

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Module 1

Module 1: Community Gathering

Location to be determined: Could either be at CEC Training Center, or at Coops/Associations

- 1) Opening Blessing
- 2) Local songs with dancing
- 3) Greetings

Purpose: The purpose of this opening gathering is to establish community and a comfortable learning environment where everyone is free to take risks. The goal is also to bring everyone into alignment and focus for the workshops. The opening ceremony also lessens the power dynamic between NUCAFE and Coops/Associations.

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Module 2

Module 2: Action Learning Projects

Opening short lecture (10-15 minutes)

- What are Action Learning Projects (ALP's)

Criteria for ALP's

- ALP's must add value to the coop/association (not just individual benefit)
- Realistic goals and timelines
- Must finance projects without help from NUCAFE (independent capital)

1. Identify personal goals

What are my current personal goals for coffee farming?

2. Identify ideas

3. Identify training business goals

Why are ALPS important?

ALP's allow participants to go through the process of designing, creating, and carrying out a project independent from NUCAFE. Participants can carry out projects that they believe to be what the coop/association needs. Participant will be more passionate about completing projects where they invest their own time and resources into.

The goal of creating mock ALP's in this first workshop will allow participants to try out different ideas and fail under unharmed circumstances. Trial and error will prepare participants for real world action projects where they can feel confident in their ability to design, create, and complete. ALP's will increase farmer agency and independent problem solving abilities, showing strong engagement with FOM.

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Module 3

Module 3: Experiential Learning

- 1) Participants will be put into small groups (3-5 people) and given a case study of a farmer
- 2) Groups will work together to come up with a solution to the problem (ALP).
- 3) Groups will then present their solution to the rest of the participants and instructors.
- 4) Instructors will provide guidance and feedback.

Example Case study:

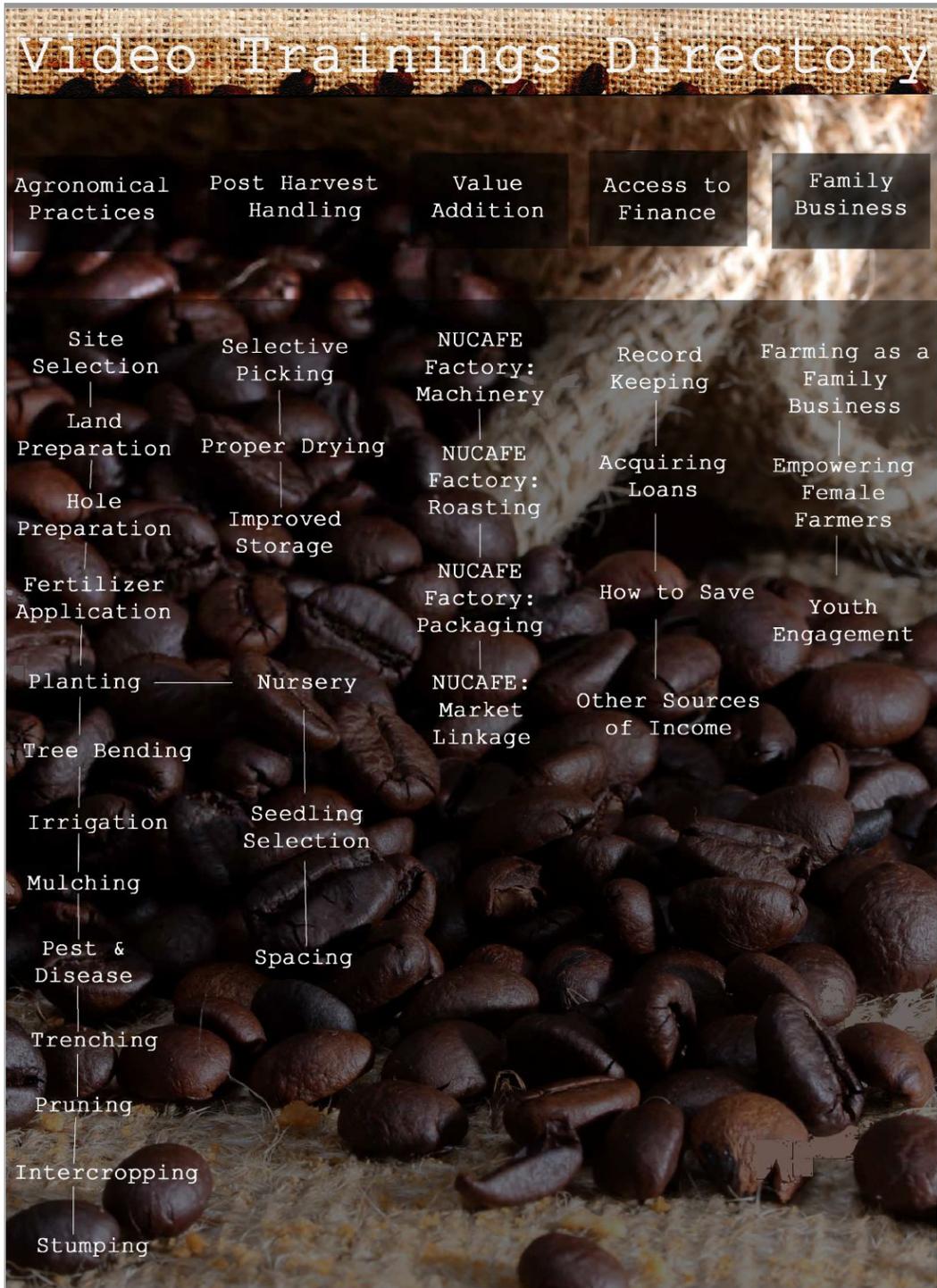
Charles is a member of NUCAFE and a coffee farmer. He experienced a coffee berry disease this season and his trees did not produce the amount of coffee he was hoping for. A middleman comes and offers Charles quick cash for the coffee he harvests. What should Charles do to avoid selling coffee to middleman while still making enough money to support his family?

Videos:

This is a good example where videos can be used to show example case studies and problems for farmers to design ALP's for. Videos can make the case studies more exciting and engaging especially if farmers seem bored or uninterested in the material. On the next page, we have included the training video framework where instructors can easily navigate to find videos for specific topics, or use this as an example to create more training videos.

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Video Framework Guide



This graphic serves as a directory listing the videos we have made. This will be explained in greater detail under the “Video Trainings” section below.

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Module 4

Module 4: Lunch/break

- Everyone eats together
- Short Games will be suggested to play

Purpose: Other than needing to eat during the day, Having a break in focus is beneficial attention span.

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Module 5

Module 5: Entrepreneurship basics

- 1) Short Lecture (15-20 minutes)
 - a) Foundation and Definitions of Entrepreneurship
 - b) Entrepreneurship specific to coffee farming

Activity: Problem Solving

- Each Participant will be given a case study/problem
- Tasked with applying information about entrepreneurship from lecture to solve the problem.

Purpose: We want farmers to participate in active learning and individual problem solving. Again, this aims at achieving the overall goal of increasing agency and engagement with FOM.

Homework: Participants will receive more case studies in the form of homework to practice and do before the next workshop. At the beginning of each following workshop after the community gathering, instructors will go over homework answers.

Example Problem:

Charles wants to start coffee farming with NUCAFE but needs to raise enough capital to buy seedlings from a UCDA certified nursery. The seeds cost 60,000 UGX and he only has 30,000 UGX. What can he do to raise the additional money needed to purchase the seeds so he can start planting coffee?

Note: For the example in class, instructors could use videos to display the problem a farmer is experiencing on his/her farm.

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Module 6

Module 6: Assessment and Evaluation

- 1) Small discussion about goals and how well we are meeting them
 - a) How did we do today?
 - b) Did we reach our learning goals?

This is important so farmers learn to make assessments of their own learning process

- 2) Formal assessment after 6 weeks or a few workshops

Feedback: Open-Ended Questions

1. What other topics would you like to see covered in the training that was not covered?
2. Please describe the impact (whether positive or negative) the training had on your personal livelihood?
3. Please describe the impact the training had on the profitability of your coffee garden?
4. What do you think, if anything needs to be improved about the trainings?

The Class Overall

| 5. HOW MUCH did the following aspects of the class HELP YOUR LEARNING? | no help | a little help | moderate help | much help | great help | not applicable |
|--|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| 5.1 The instructional approach taken in this class | <input type="radio"/> |
| 5.2 The pace of the class | <input type="radio"/> |
| 5.3 Please comment on how the INSTRUCTIONAL APPROACH to this class helped your learning. | <input type="text"/> | | | | | |
| 5.4 How has this class CHANGED THE WAYS YOU LEARN/STUDY? | <input type="text"/> | | | | | |

Class Activities

| 6. HOW MUCH did each of the following aspects of the class HELP YOUR LEARNING? | no help | a little help | moderate help | much help | great help | not applicable |
|--|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| 6.1 Attending lectures | <input type="radio"/> |
| 6.2 Participating in discussions during trainings | <input type="radio"/> |
| 6.3 Listening to discussions during trainings | <input type="radio"/> |
| 6.4 Participating in group work during trainings | <input type="radio"/> |
| 6.5 Doing hands-on classroom activities | <input type="radio"/> |
| 6.6 Please comment on how the CLASS ACTIVITIES helped your learning. | <input type="text"/> | | | | | |

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Module 7

Module 7: Closing Ceremony

- 1) Local songs and dancing
- 2) Instructors address the participants and thank everyone for coming
- 3) Blessing

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Conclusion and Recommendations

This framework establishes a baseline for innovative educational practices. Interwoven with videos, assessment tools and other innovative practices, this curriculum is designed to show how retention of material can be increased by supplementing lecture-based trainings and lessons.

While this curriculum is aimed to be used in NUCAFE's new training facility, it is our recommendation to utilize this framework for all NUCAFE trainings moving forward, adapting it to the needs of the situation at hand. This includes trainings that will be conducted for future clients of NUCAFE's new consulting branch as well as leaders of cooperatives and associations. This curriculum is also intended to guide TOT's and Secretary Managers/Business leaders in the direction of innovative educational practices. It is not, however, intended to as the end-all, be-all for NUCAFE's future trainings.

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Video Trainings



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Introduction & Distribution Plan

Introduction:

We have crafted 45 training videos designed to supplement the new training curriculum. In addition, a graphic separated by video topics was designed to ease online navigation of these videos. Clicking on the title of the graphic will take viewers to NUCAFE's YouTube page containing a playlist of the videos we crafted. Viewers can follow along the directory to see the logical progression from one video to the next.

The goal of these videos is to kickstart an innovative tool for education. Our hope is that this video curriculum will inspire secretary managers and other cooperative leaders to film their own videos, based on the needs of their members. With this in mind, in this report you will also find a brief guide with suggestions for filming and distributing new videos.

Distribution Plan:

Patrick, NUCAFE's IT officer, will direct the translations required for each cooperative. He then will burn these videos onto CDs that will be given to cooperative Secretary Managers.

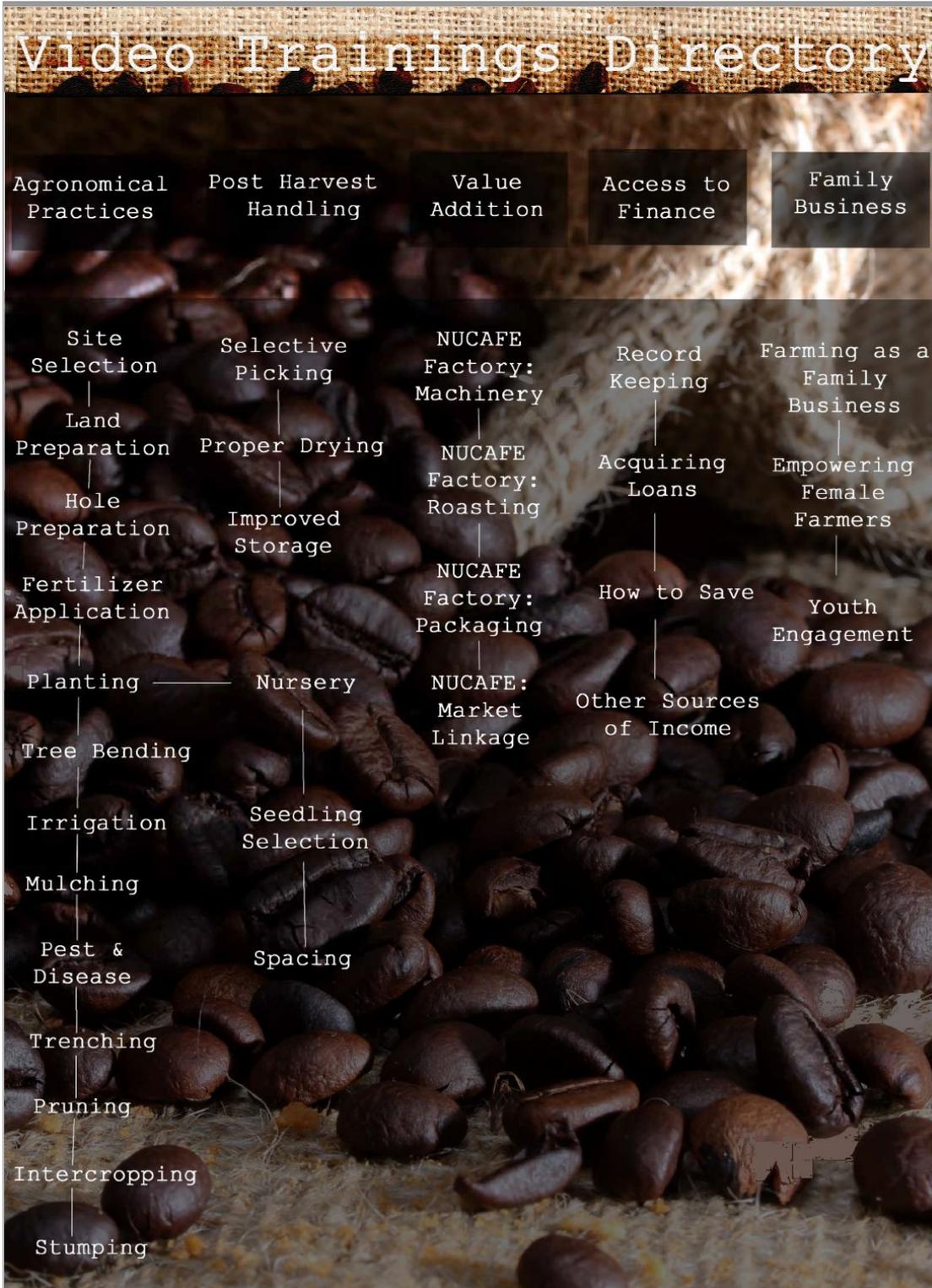
Secretary Managers will then be in charge of distributing these videos through various mediums: CD, memory cards for phones, laptops and smartphones (if applicable). Since this process will be slow, it is preferred that the videos be put on secretary managers'/business leaders' computers who can then distribute them to their farmers through CDs and mobile phones (if applicable).

For those with internet access, these videos will also be accessible through NUCAFE's new website. On there you will find this graphic located on the next page.

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Video Framework Guide



Note: This is a screenshot. A working, hyperlinked PDF will also be provided.

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Intended Use & Suggestions

Intended Use:

Utilizing training videos will greatly facilitate NUCAFE's mission of coffee farmers profitably owning their coffee along the value chain for sustainable livelihoods. This is because these videos will allow for NUCAFE to scale its training and impact on a level that was not feasible before due to limited manpower. These videos are intended to work hand in hand with the new training curriculum as valuable supplemental learning tools.

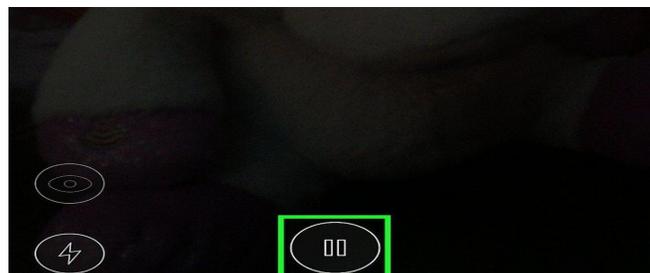
Video Making Suggestions:

We hope that these videos are only the beginning of NUCAFE's new education tool. The end goal would be to have each cooperative produce videos for their member base on a need basis. These videos can all be uploaded to a YouTube account to give everyone with computer access the ability to view these videos and download them for their cooperatives. Below is a simple guide of suggestions to filming videos.

Tools Required:

- A camera (can also be smartphone or tablet)
- CDs for distribution
- Access to Computer to Burn Videos

In order to avoid editing as much as possible, it is best to utilize the pause button feature while recording in case the subject forgets what to say. This way, the final video will not include all the mistakes made and editing is not necessary.



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Assessment Tool



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Purpose, Methods, and Design

Assessments of farmer trainings will allow Cooperative/ Association managers to advance farmer learning and NUCAFE to manage its training resources. These tools will help NUCAFE allocate their training resources more efficiently and create greater agency and independence to combat training issues at the Cooperative / Association level. The assessment tool for the trainings will concrete statistical data which measures if the farmers are effectively learning and retaining the knowledge presented to them; it will also identify the most productive elements of the training. We recommend this data be used to convey NUCAFE's educational impact on farmers to multiple stakeholders. Cooperative / Association managers can deliver this assessment to their farmers on their laptops or tablets. The managers can have the survey results readily available and in result develop learning projects that combat the specific needs and issues the respective group is facing. NUCAFE's new training center will be able to use the assessments to discover what type of trainings and topics need to be a priority for the center.

Based on the findings we identified from engaging with farmers and NUCAFE trainers we designed the assessment tool to test on the topics farmers need and the key topics NUCAFE prioritizes. With the help of professors from Santa Clara University including Professor Christopher Bacon and Stephen Carroll, we were able to design an effective survey to accurately measure the knowledge gains made by farmers and to pinpoint weak areas of the training.

The design of the baseline survey and post-survey is set up on an online survey instrument called Salgsite, which stands for Student Assessment Learning Gains. We highly recommended delivering and analyzing these surveys online through Salgsite.org which is a survey design tool to measure student learning. SALG is a highly effective and credible survey site. The instruments and website have been updated over time to serve an ever-increasing number of instructors: Over 20,000 instructors have registered on the SALG site and about 15,000 have used SALG in contexts that include universities, liberal arts colleges, community colleges, professional schools, high schools, libraries and museums.

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Purpose, Methods, and Design

The assessment instruments we developed with the Cooperative managers have been uploaded to this website and the farmers' responses can easily be tracked and automatically analyzed through tools built into the website. The survey assesses the content presented, the attitudes that the trainings were supposed to inculcate and the habits that the training seeks to integrate into the farmers' thoughts and actions. The survey is broken up into two sections: a baseline survey and a post-survey known as a SALG survey. The baseline survey assesses the participant's knowledge, skills, attitudes and habits relative to the training goals before the training. The SALG survey will be given as a follow up to the training and will measure the progress of the participants and what knowledge and habits they have applied and retained.

The website can be accessed using a computer or tablet. We recommend the Cooperative / Association managers or instructors to give out these surveys on their computers or tablets. The use of a computer system allows the analysis of the survey to be done in an easier, organized, and more accurate manner than paper surveys.

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Data Analysis

The data can be analyzed using the information and graphs Saglsite.org presents. We recommend using the data presented to pinpoint weak areas and topics that need to be improved. It is highly encouraged to share the results with the participants and highlight the areas in which they can improve. It is also highly advised for the trainers to analyze the results and understand how they can improve their training and if they need to advance the material or simplify it for the audience.

The mean and mode of responses will be given to display the average response choice and the most popular choice value among the responses. Figure 1 depicts the average mean response for each question under the “Understanding” section for the baseline survey. The site will also measure how many people took the survey as well as the standard deviation of the responses. The standard deviation measures the spread of the responses. If the standard deviation is large, that indicates the data is spread out and responses vary significantly from person to person. This would reveal that the training is only effective for a portion of the respondents and not for others.

Figure 1

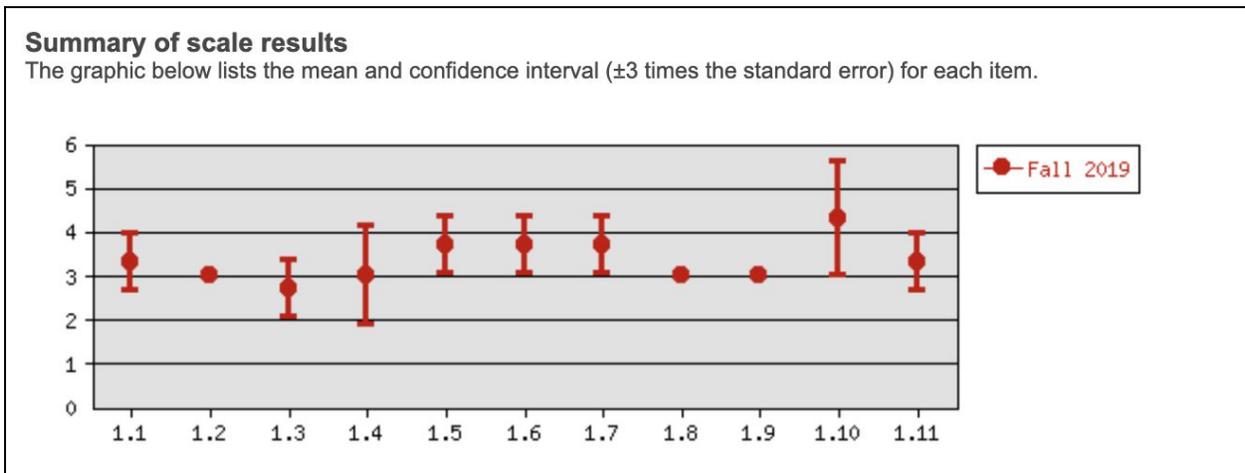
| Understanding | | | | | | | | | |
|--|-------------------|---------------|------------------|-------------|----------|-----------------|------|---|-------------------------|
| 1. Presently, I understand... | 1: not applicable | 2: not at all | 3: just a little | 4: somewhat | 5: a lot | 6: a great deal | Mean | N | |
| 1.1 What happens to my coffee at the processing plant | 0% | 0% | 20% | 10% | 0% | 0% | 3.3 | 3 | details |
| 1.2 How my coffee is roasted and graded | 0% | 0% | 30% | 0% | 0% | 0% | 3.0 | 3 | details |
| 1.3 An idea of what the coffee processing factory looks like and how it is generally run | 0% | 10% | 20% | 0% | 0% | 0% | 2.7 | 3 | details |
| 1.4 How they package the coffee | 0% | 10% | 10% | 10% | 0% | 0% | 3.0 | 3 | details |
| 1.5 Who is paying for the coffee | 0% | 0% | 10% | 20% | 0% | 0% | 3.7 | 3 | details |
| 1.6 The type of market that buys the coffee | 0% | 0% | 10% | 20% | 0% | 0% | 3.7 | 3 | details |
| 1.7 Additional ways of obtaining income besides coffee farming | 0% | 0% | 10% | 20% | 0% | 0% | 3.7 | 3 | details |
| 1.8 How to keep track of my finances | 0% | 0% | 30% | 0% | 0% | 0% | 3.0 | 3 | details |
| 1.9 How to make finance decisions | 0% | 0% | 30% | 0% | 0% | 0% | 3.0 | 3 | details |
| 1.10 The importance of getting my children involved in coffee farming | 0% | 0% | 10% | 0% | 20% | 0% | 4.3 | 3 | details |
| 1.11 I am not just a farmer but a business man / woman | 0% | 0% | 20% | 10% | 0% | 0% | 3.3 | 3 | details |

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Data Analysis

The site will provide the user with a distribution graph for each question displaying where the average number of people’s answers lie. A summary of scale results is also provided for each question. The summary of scale is produced for each section and displays the average answer and confidence interval for each individual question in the given section. Figure 2 shows the summary of scale results for the “Understanding” section in the baseline survey. As the graph conveys, a majority of participants fall under the “just a little” or “somewhat” result for that section. These graphs should be analyzed to see the average answer the participants responded for each question. As a result, if there is a question or section in which all participants did not understand the trainer can identify that as a weak point in the training. We also recommend to code the text answer responses to allow an easier analysis of open-ended questions.

Figure 2



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Data Analysis

We highly recommend for NUCAFE to use the site’s cross-tab analysis tool. Sagsite.org will be able to look at the relationship between the baseline instrument and the SALG instrument as well as the cross-analysis of two questions. See figure 3 as an example of a cross-tab analysis of a skill “How to keep track of my finances” question and an attitude “Willing to make financial decisions as a family” question. The results show that the majority of people responded that they only knew a little about how to keep track of their finances but were mostly willing to make financial decisions as a family. This analysis tool will help compare people’s understandings, skills, attitudes, and actions. The cross-tab analysis of the baseline survey and SALG survey instruments will convey where the participants were on average at the beginning and where they are now. It will also allow you to see where your training is working best. For example, you can see who made the greatest gains in any kind of learning, those who said on the baseline survey that they knew very little, those who said they knew a middle amount or those who said they knew a lot. This allows you to see at what level your training is working best and to adjust your teaching to reach those whom you most want to reach. The analysis of the survey will also provide the instructor with the ability to look at the relationship between the data, such as comparing the average answers of one question to another. Using these cross-examination analysis tools NUCAFE can convey concrete data that the trainings are being effective, as well as improve their trainings based on the results. This will be highly valuable to market NUCAFE’s impact to various stakeholders.

Figure 3

[Turn colors off](#)

Rows: How to keep track of my finances
Columns: Willing to make financial decisions as a family

| | not applicable | not at all | just a little | somewhat | a lot | a great deal |
|----------------|----------------|------------|---------------|----------|-------|--------------|
| not applicable | 0 | 0 | 0 | 0 | 0 | 0 |
| not at all | 0 | 0 | 0 | 0 | 0 | 0 |
| just a little | 0 | 0 | 0 | 1 | 2 | 0 |
| somewhat | 0 | 0 | 0 | 0 | 0 | 0 |
| a lot | 0 | 0 | 0 | 0 | 0 | 0 |
| a great deal | 0 | 0 | 0 | 0 | 0 | 0 |

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Appendix A

Baseline Survey

Understanding

| 1. Presently, I understand... | not applicable | not at all | just a little | somewhat | a lot | a great deal |
|--|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| 1.1 What happens to my coffee at the processing plant | <input type="radio"/> |
| 1.2 How my coffee is roasted and graded | <input type="radio"/> |
| 1.3 An idea of what the coffee processing factory looks like and how it is generally run | <input type="radio"/> |
| 1.4 How they package the coffee | <input type="radio"/> |
| 1.5 Who is paying for the coffee | <input type="radio"/> |
| 1.6 The type of market that buys the coffee | <input type="radio"/> |
| 1.7 Additional ways of obtaining income besides coffee farming | <input type="radio"/> |
| 1.8 How to keep track of my finances | <input type="radio"/> |
| 1.9 How to make finance decisions | <input type="radio"/> |
| 1.10 The importance of getting my children involved in coffee farming | <input type="radio"/> |
| 1.11 I am not just a farmer but a business man / woman | <input type="radio"/> |

Skills

| 2. Presently, I can... | not applicable | not at all | just a little | somewhat | a lot | a great deal |
|---|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| 2.1 Select the proper site to prepare coffee | <input type="radio"/> |
| 2.2 Prepare the land before planting coffee | <input type="radio"/> |
| 2.3 Proper plant spacing | <input type="radio"/> |
| 2.4 Mark and prepare the hole for the coffee tree | <input type="radio"/> |
| 2.5 Select proper planting materials | <input type="radio"/> |
| 2.6 How to intercrop with plantains | <input type="radio"/> |
| 2.7 Correctly apply compost to my coffee plantation | <input type="radio"/> |
| 2.8 Proper stumping methods | <input type="radio"/> |
| 2.9 Correctly apply fertilizer | <input type="radio"/> |
| 2.10 Properly bend a coffee tree | <input type="radio"/> |
| 2.11 Properly irrigate the coffee garden | <input type="radio"/> |
| 2.12 Properly mulch | <input type="radio"/> |
| 2.13 Construct trenches | <input type="radio"/> |
| 2.14 Prune a coffee tree | <input type="radio"/> |
| 2.15 Selectively pick the coffee cherries | <input type="radio"/> |
| 2.16 Properly dry the coffee | <input type="radio"/> |
| 2.17 Properly store the coffee | <input type="radio"/> |
| 2.18 What do you expect to be able to do at the end of the course that you cannot do now? | <input type="text"/> | | | | | |
| 2.19 Keeping track of my finances through book keeping and record keeping | <input type="radio"/> |

Prepared by:



Appendix A

Attitudes

| 3. Presently, I am... | not applicable | not at all | just a little | somewhat | a lot | a great deal |
|---|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| 3.1 Interested in obtaining other sources of income | <input type="radio"/> |
| 3.2 Excited to keep track of my money and save | <input type="radio"/> |
| 3.3 Willing to make financial decisions as a family | <input type="radio"/> |
| 3.4 Excited to encourage the youth and my children to coffee farm | <input type="radio"/> |
| 3.5 Confident that I am a business man / woman | <input type="radio"/> |
| 3.6 Comfortable working with complex ideas | <input type="radio"/> |
| 3.7 Willing to seek help from others (teacher, peers, TA) when working on academic problems | <input type="radio"/> |
| 3.8 Please comment on your present level of interest in this subject. | <input type="text"/> | | | | | |

Integration of learning

| 4. Presently, I am in the habit of... | not applicable | not at all | just a little | somewhat | a lot | a great deal |
|---|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| 4.1 Connecting key ideas I learn in my training with other knowledge | <input type="radio"/> |
| 4.2 Applying what I learn in training to the farm | <input type="radio"/> |
| 4.3 Using systematic reasoning in my approach to problems | <input type="radio"/> |
| 4.4 Using a critical approach to analyzing data and arguments in my daily life | <input type="radio"/> |
| 4.5 Please comment on how you expect this training to integrate with your career and/or life? | <input type="text"/> | | | | | |

Prepared by:

Appendix B

Post- Survey

Your understanding of class content

| 1. As a result of your work in this class, what GAINS DID YOU MAKE in your UNDERSTANDING of each of the following? | no gains | a little gain | moderate gain | good gain | great gain | not applicable |
|--|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| 1.1 Best practices for preparing the land for coffee planting | <input type="radio"/> |
| 1.2 Why I should pick the red cherries by hand | <input type="radio"/> |
| 1.3 Proper storing practices for coffee | <input type="radio"/> |
| 1.4 The value in drying coffee on a raised wire mesh rack | <input type="radio"/> |
| 1.5 The importance of obtaining other sources of income | <input type="radio"/> |
| 1.6 The following concepts that have been explored in this class | no gains | a little gain | moderate gain | good gain | great gain | not applicable |
| 1.6.1 Agronomical practices | <input type="radio"/> |
| 1.6.2 Production and productivity | <input type="radio"/> |
| 1.6.3 Farmer Ownership Model | <input type="radio"/> |
| 1.6.4 Governance and leadership | <input type="radio"/> |
| 1.6.5 Family business management and succession planning | <input type="radio"/> |
| 1.6.6 Value addition | <input type="radio"/> |
| 1.6.7 Marketing | <input type="radio"/> |
| 1.7 Please comment on HOW YOUR UNDERSTANDING OF THE SUBJECT HAS CHANGED as a result of this training. | <input type="text"/> | | | | | |

Increases in your skills

| 2. As a result of your work in this class, what GAINS DID YOU MAKE in the following SKILLS? | no gains | a little gain | moderate gain | good gain | great gain | not applicable |
|---|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| 2.1 Properly spacing coffee trees | <input type="radio"/> |
| 2.2 Proper bending of the coffee tree | <input type="radio"/> |
| 2.3 Proper application of mulch | <input type="radio"/> |
| 2.4 How to properly dig trenches | <input type="radio"/> |
| 2.5 Proper pruning methods | <input type="radio"/> |
| 2.6 Proper stumping methods | <input type="radio"/> |
| 2.7 Coffee storage techniques | <input type="radio"/> |
| 2.8 How to keep track of finances | <input type="radio"/> |
| 2.9 How to get other sources of income | <input type="radio"/> |
| 2.10 Methods of saving money | <input type="radio"/> |
| 2.11 Dealing with failure | <input type="radio"/> |
| 2.12 Ability to design, implement, complete Action Learning Projects (ALP's) | <input type="radio"/> |

Prepared by:

Appendix B

Post- Survey

Class impact on your attitudes

| 3. As a result of your work in this class, what GAINS DID YOU MAKE in the following? | no gains | a little gain | moderate gain | good gain | great gain | not applicable |
|---|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| 3.1 Feeling more like a business man/woman than a farmer | <input type="radio"/> |
| 3.2 Confidence that you can solve problems | <input type="radio"/> |
| 3.3 Interest in taking or planning to take additional trainings | <input type="radio"/> |
| 3.4 Confidence that you understand the material | <input type="radio"/> |
| 3.5 Your comfort level in working with complex ideas | <input type="radio"/> |
| 3.6 Willingness to seek help from others (teacher, peers, TA) when working on academic problems | <input type="radio"/> |
| 3.7 Ownership over your coffee | <input type="radio"/> |
| 3.8 Willing to take risks | <input type="radio"/> |
| 3.9 Please comment on how has this training CHANGED YOUR ATTITUDES toward coffee farming. | <input type="text"/> | | | | | |
| 3.10 Please describe the impact (whether positive or negative) the training had on your personal livelihood | <input type="text"/> | | | | | |

Integration of your learning

| 4. As a result of your work in this class, what GAINS DID YOU MAKE in INTEGRATING the following? | no gains | a little gain | moderate gain | good gain | great gain | not applicable |
|--|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| 4.1 Buying seedlings from a UCDA certified nursery | <input type="radio"/> |
| 4.2 Properly marking and digging a 2 foot hole for the coffee tree | <input type="radio"/> |
| 4.3 Using systematic reasoning in my approach to problems | <input type="radio"/> |
| 4.4 Using a critical approach to analyzing data and arguments in my daily life | <input type="radio"/> |
| 4.5 Putting 1 foot of manure compost into the hole first before the coffee tree | <input type="radio"/> |
| 4.6 I test my soil for what nutrients it lacks | <input type="radio"/> |
| 4.7 I apply fertilizer to add nutrients to the soil | <input type="radio"/> |
| 4.8 I irrigate my coffee garden when needed | <input type="radio"/> |
| 4.9 I bend my coffee tree at a 45-degree angle using a hook towards the direction of the sunset | <input type="radio"/> |
| 4.10 I put a ring of mulch around the tree having it be the width of the canopy | <input type="radio"/> |
| 4.11 I dig trenches for my coffee trees | <input type="radio"/> |
| 4.12 I prune my coffee trees so that there are only 3-4 branches on each tree. | <input type="radio"/> |
| 4.13 I prune my coffee trees using a cutter tool. | <input type="radio"/> |
| 4.14 I stump my coffee trees that are 7-9 years old | <input type="radio"/> |
| 4.15 Turning my coffee daily to make sure it is evenly exposed to the sun | <input type="radio"/> |
| 4.16 I cover my coffee when it rains. | <input type="radio"/> |
| 4.17 I store my coffee in a designated storage area | <input type="radio"/> |
| 4.18 The storage area has a waterproof roof | <input type="radio"/> |
| 4.19 I do not store my coffee on the floor | <input type="radio"/> |
| 4.20 The storage area has proper ventilation | <input type="radio"/> |
| 4.21 I have other sources of income besides coffee | <input type="radio"/> |
| 4.22 I keep track of my finances using bookkeeping | <input type="radio"/> |
| 4.23 I save a good portion of my money | <input type="radio"/> |
| 4.24 What will you CARRY WITH YOU into other classes or other aspects of your life? | <input type="text"/> | | | | | |

Prepared by:

Appendix B

Post- Survey

The Class Overall

| 5. HOW MUCH did the following aspects of the class HELP YOUR LEARNING? | no help | a little help | moderate help | much help | great help | not applicable |
|--|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| 5.1 The instructional approach taken in this class | <input type="radio"/> |
| 5.2 The pace of the class | <input type="radio"/> |
| 5.3 Please comment on how the INSTRUCTIONAL APPROACH to this class helped your learning. | <input type="text"/> | | | | | |
| 5.4 How has this class CHANGED THE WAYS YOU LEARN/STUDY? | <input type="text"/> | | | | | |

Class Activities

| 6. HOW MUCH did each of the following aspects of the class HELP YOUR LEARNING? | no help | a little help | moderate help | much help | great help | not applicable |
|--|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| 6.1 Attending lectures | <input type="radio"/> |
| 6.2 Participating in discussions during trainings | <input type="radio"/> |
| 6.3 Listening to discussions during trainings | <input type="radio"/> |
| 6.4 Participating in group work during trainings | <input type="radio"/> |
| 6.5 Doing hands-on classroom activities | <input type="radio"/> |
| 6.6 Please comment on how the CLASS ACTIVITIES helped your learning. | <input type="text"/> | | | | | |

Prepared by: