

GENDER & CLIMATE INITIATIVE

Building an equitable coffee value chain with
smallholder women coffee producers



**Final Project Report
Care Trade 2021-22**

Published in April 2022

**bean
voyage**



Bean Voyage is a feminist non-profit social enterprise that provides a bundle of services consisting of training, financing, market access, and mentorship to smallholder women coffee farmers.

Vision

To eradicate the gender gap in farming communities.

Mission

To partner with 2,500 coffee producing communities in 5 countries, supporting 2 million smallholder women and their families around the world by 2030.

Values

CARE - Compassion, Agency, Resilience and Equity.





INDEX

GENDER AND CLIMATE INITIATIVE - FINAL REPORT

Summary & Context of the Project	3	
Key Impact Metrics	4	
Problem Statement: Why Gender and Climate?	6	
Meet the Class 2021	8	By Demographic data By Past experiences
Reasons why farmers choose bean voyage	11	
Project timeline overview	13	
Project Team	16	Bean Voyage Project Team Facilitators Trainers Volunteers
Monitoring, Evaluation and Impact	18	
What did we learn?	22	On Learning Styles On Duration On Modality On Future Learning
Testimonials	24	
Looking Forward	25	
Partners	26	
Appendices	29	On Learning Patterns Meet the Class 2021 - by Education Meet the Class 2021 - by Economic Activities Meet the Class 2021 - by Sources of Income Meet the Class 2021 - by Finance & other Meet the Class 2021 - by Household members Meet the Class 2021 - by Annual Production Meet the Class 2021 - by Coffee Production & Processing Meet the Class 2021 - by Coffee Knowledge

Summary & Context of the project

The aim of the **Gender and Climate Initiative** was to provide a set of tools and knowledge materials on climate adaptive farming practices to **244 smallholder women coffee farmers in Costa Rica** so they can recalibrate their soil, plant and water health to adapt to the first hand impacts of climate change, improving farming practices and generating thriving income to sustain their families.

During this initiative, we provided **a 12-week training** to smallholder women coffee producers on a variety of topics related to climate change adaptation. At the end of the training, producers were able to discuss and illustrate the impact of soil, water, and crop health and agroforestry; and share good practices for soil, water and crop conservation. More importantly, **producers gained tools and knowledge to implement regenerative agricultural practices to minimize their impacts on the environment.**

In addition, at the end of the program, producers that successfully completed the training were offered the opportunity to enroll into Bean Voyage's market access program to can sell their coffee at ~200% higher prices than the current commodity market to buyers in Europe, USA, Canada, and South Korea, where Bean Voyage currently maintains market presence.

In the long term, producers will be able to produce higher quality crops that are resistant to the impacts of climate change, implement regenerative practices and re-invest the earned income from the higher prices towards the growth of their resource pool to adapt to climate change.

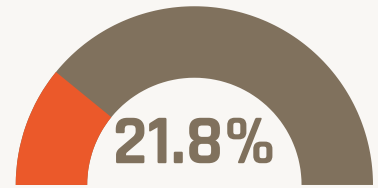
KEY IMPACT METRICS

Care Trade 2021

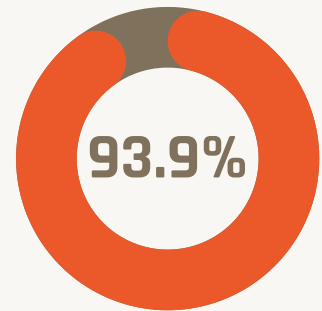


244

TOTAL NUMBER OF PARTICIPANTS



GROWTH IN FARMERS ENROLLED (2021 VS. 2020)



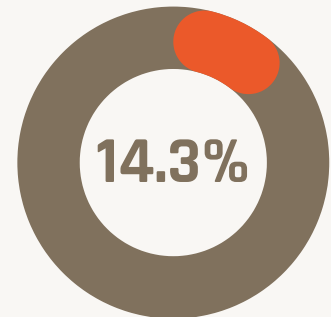
FARMER SATISFACTION SCORE

585 

PEOPLE DIRECTLY IMPACTED

1,098 

PEOPLE INDIRECTLY IMPACTED



ATTRITION RATE

7 

COFFEE FARMING REGIONS

1 

COUNTRY OF OPERATION - COSTA RICA

12 WEEKS

OF TRAINING ON GENDER & CLIMATE CHANGE ADAPTATION





PROBLEM STATEMENT:

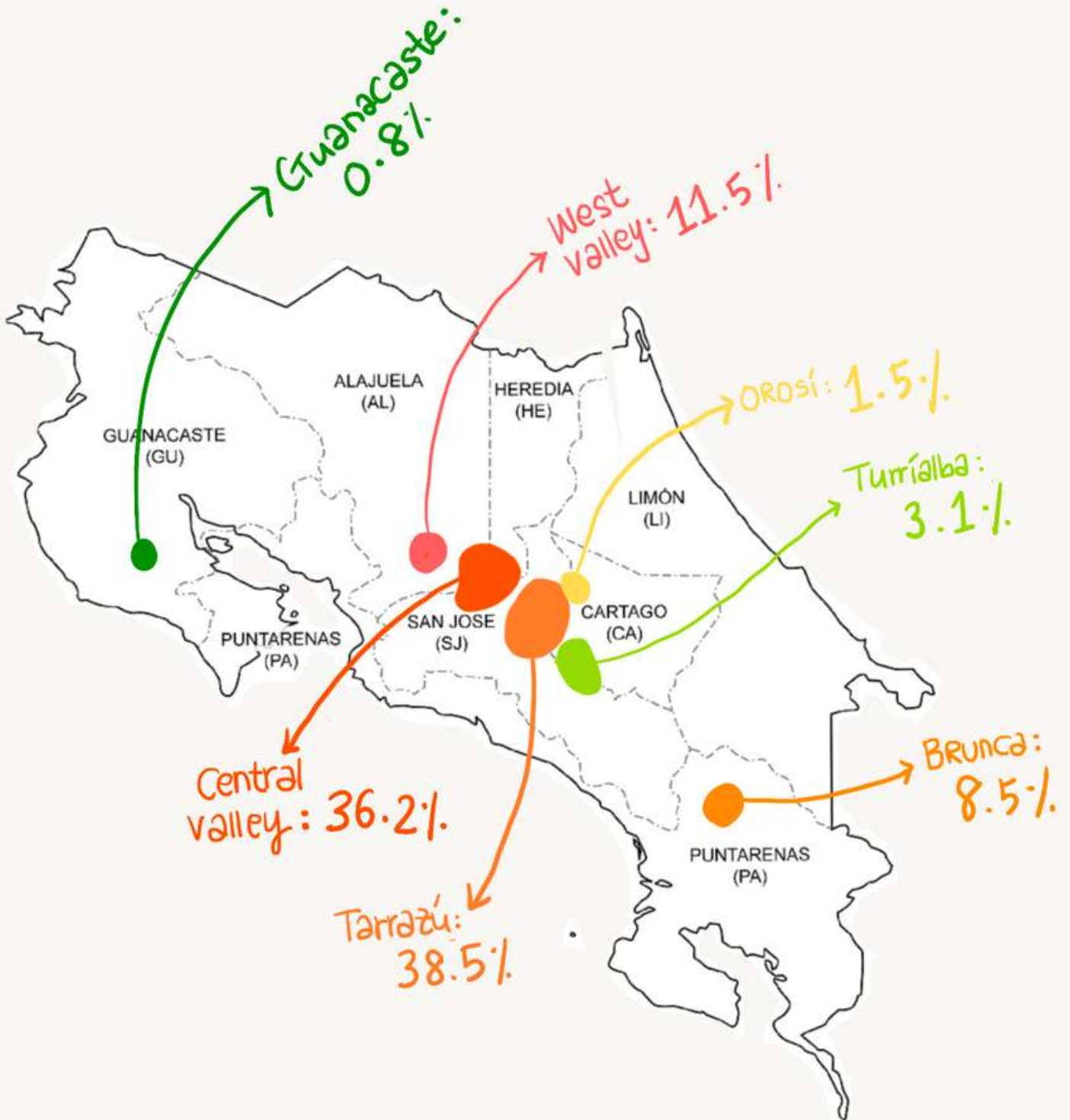
WHY GENDER & CLIMATE?

A 1-degree rise in global temperature is estimated to decrease the annual coffee yield by 137 kg per hectare. For an average Bean Voyage farmer, this represents a 12% reduction in annual yield and **an income loss of \$1,347 annually**. This loss eventually accumulates towards extreme poverty levels for smallholder women and their families.

Climate change is impacting the farms of smallholder women coffee farmers, in various ways: with uncertainty in rainfall, coffee flowering has been delayed, reducing yield. With the increase of drought, bean defects have risen, reducing coffee quality. Moreover, with the rise in pests, production costs have increased as producers have to purchase expensive pesticides and pest-resistant varieties of coffee plants.

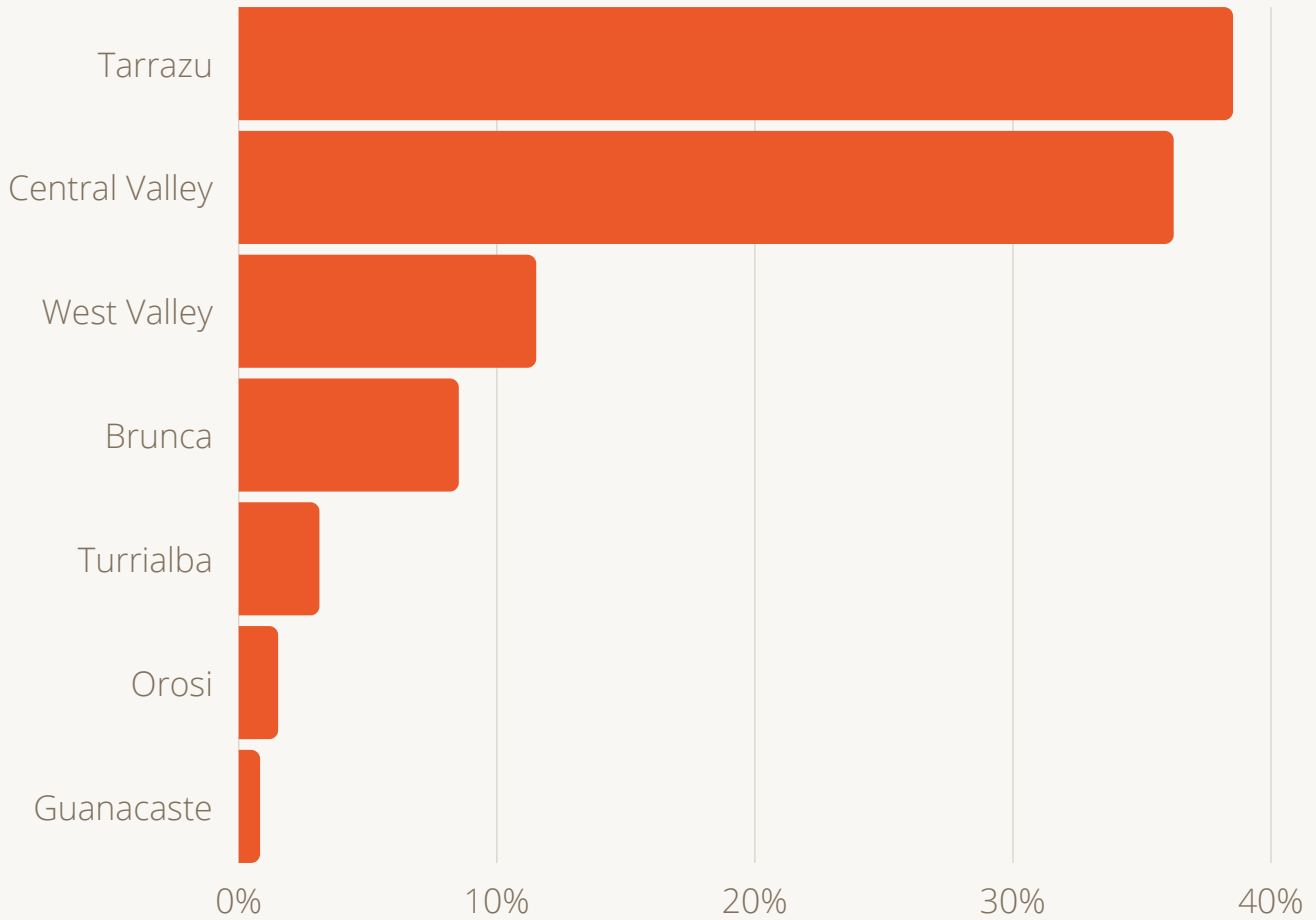
Due to gender-based discrimination, smallholder women are less likely to access the training and resources required to adapt to climate change. From our past cohorts, one in two women never received prior training or advisory services. In addition, as smallholder women are resource poorer than smallholder men, they are less likely to purchase disease tolerant plants. Finally, due to limited data and mapping, they are also less likely to be considered for national or regional-level training and financing opportunities to transition their farms towards climate-resistant plantations.

MEET THE CLASS 2021



MEET THE CLASS 2021

By Demographic data



AGE

19-
65

54.3% of the participants within the ages 41-65, and 35.60% of the participants within the ages 27-40. 6.7% of the participants were between 19-26 years old, and 2.9% of the participants were above the age of 65.

MEET THE CLASS 2021

By Demographic data

2 ha.

MEDIAN FARM SIZE

51.4% of the participants own less than 2 hectares of farm land.
18.3% of the participants own less than 1 hectare of farm land.

38.
5%

FARM OWNERSHIP

38.5% of the participants own their farm, and the remaining are farming on the land of their husbands (15.4%) or parents (21.7%).

53.
4%

CONTROL IN SUPPLY CHAIN

53.4% of the participants are currently not processing their own coffee, and sell it to local cooperatives; not having access to the final green coffee.

MEET THE CLASS 2021

By Past experiences

61.

1 %

ACCESS TO TRAINING

61.1% had never received any formal training other than that offered by Bean Voyage.

16.

8 %

ACCESS TO INFORMATION

Only 16.8% responded having access to experts regularly to ask any questions about their farm and mill operations.

65.

9 %

CERTIFICATIONS

65.90% of the participants do not have any sustainability certifications for their farms.

More on the participants in Appendix

REASONS WHY FARMERS CHOOSE BEAN VOYAGE

To learn and improve production techniques.

To connect with market partners through transparent relationships as part of Bean Voyage.

To empower myself, and grow as a woman and coffee farmer.

To gain greater independence and decision making ability.

To get more involved in the coffee farm of my family.

To receive the support that Bean Voyage provides to smallholder women.

To develop a sustainable business.



Leaves damaged by Royia (Leaf rust) / photo taken by Alexa Romano

www.beanvoyage.org/care-trade

PROJECT TIMELINE OVERVIEW:

Partnerships (January - February 2021):

We built a strong alliance with local organizations such as the Coffee Institute of Costa Rica (ICAFFE), CATIE, and La Ruta Del Climate to become thought partners for this program, offering their knowledge and expertise in climate change adaptation towards curriculum design. Members of these three organizations also facilitated various masterclass sessions, in addition to guiding and informing the curriculum.

Facilitator Training (February - April 2021):

We recruited 5 youth from coffee producing communities as program facilitators, to support the process of recruiting, training, and providing extension services to 250 smallholder women coffee farmers. On average, one facilitator was responsible for 3 groups of 25 farmers.

Content Development (January - April 2021)

As we were still working with COVID protocols, we were not able to deliver in-person workshops and hence used our award winning methodology that pairs WhatsApp with a simple learning platform for farmers to receive bite sized learning materials in videos, infographic and voice notes.

Farmer Recruitment (May - August 2021):

We hosted a series of creative marketing events to recruit 250 smallholder women coffee farmers. From participating in local radio, to hosting webinars and forums, the program team laid out a strong work plan to reach enrollment goals for this program.

PROJECT TIMELINE OVERVIEW:

Producer Training (August - November 2021):

The training program was divided into two modules: women in community and adaptation to climate change. In the first module, we worked with the producers on topics such as History of Women, Storytelling and Conflict Resolution. In the second module, we covered key topics in climate change adaptation such as soil management, farm management, water management, agroforestry, and biodiversity.

Monitoring & Evaluation (November-December 2021):

At the beginning of the program, we conducted a pre-program test of basic concepts covered during the program, and a similar post-program test was administered to all participating farmers. This allowed for our team to measure a pre-and-post growth in knowledge, while collecting valuable feedback from the farmers on the program effectiveness.



Graduation (December 2021):

We hosted a special ceremony for all farmers that successfully completed the program, awarding certificates of completion, preceded by remarks from various partners and trainers of the program.



During Monitoring and Evaluation visit in Frailes / Photo taken by Fernanda Carrillo

PROJECT TEAM

Bean Voyage Management Team:



Fernanda Carrillo Chacón:
Project Coordinator



Adriana Vasquez Rodriguez:
Project Supervisor



Sunghee Tark:
Curriculum Manager



Abhinav Khanal:
Logistics Manager

Facilitators:



Laura Gómez Cordero:
Tarrazú Region



Viviana Gomez Cordero:
Central Valley Region



Ashley Torres Lopez:
Guanacaste, Turialba and
Central Valley Regions



José Carlo Granados Umaña:
Tarrazú and West Valley Regions



Maria Delfina Porrás Solís:
Tarrazú and West Valley Region

PROJECT TEAM

Trainers & Master Class Instructors:



Irené Jiménez Barrantes:
Independent Gender Consultant
- Gender Curriculum



Miguel Tello:
Independent Consultant - Community
& Conflict Resolution Curriculum



Adrián Martínez Blanco:
La Ruta Del Clima -
Climate Curriculum



Sergio Castro Pacheco:
Independent consultant - Good
Farming Practices



Mariano Vargas Chinchilla:
Foro Al Grano - Good Farming
Practices



Vanessa Rojas Herrera:
The Coffee Institute of Costa Rica -
Good Farming Practices



Elias de Melo Virginio Filho:
The Tropical Agricultural
Research and Higher Education
Center (CATIE) - Climate
Adaptation Curriculum



Alejandra Martínez Salinas:
The Tropical Agricultural Research and
Higher Education Center (CATIE) -
Climate Adaptation Curriculum



Adina Chain Guadarrama:
The Tropical Agricultural Research and
Higher Education Center (CATIE) -
Climate Adaptation Curriculum

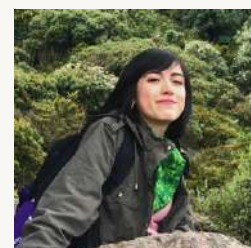
Volunteers:



Sarah El Alj
Meta, Inc.
Volunteer
support for
farmer
recruitment
campaign



**Irina
Caballero
Ramírez**
Veritas
Volunteer
support for
program booklet
design



**Mariana
Fernández
Saenz**
Veritas
Volunteer
support for
program booklet
design

MONITORING, EVALUATION & IMPACT

Monitoring:



55.8 HOURS

TRAINING
OVER 12 WEEKS

244

TOTAL PARTICIPANTS IN THE PROGRAM

29

VIDEOS LECTURE PRODUCED &
SHARED

154

INFOGRAPHICS PRODUCED & SHARED

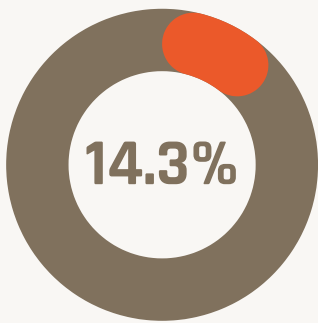
9

MASTERCLASSES WITH SUBJECT MATTER
EXPERTS

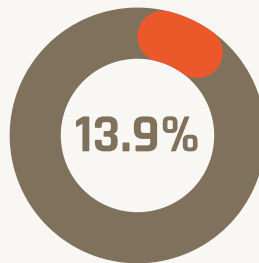


MONITORING, EVALUATION & IMPACT

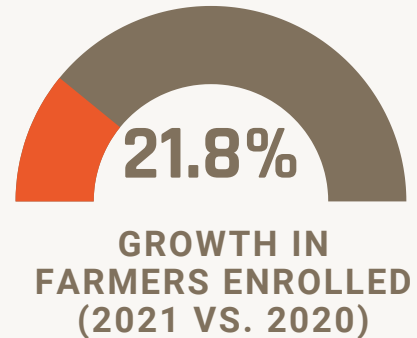
Evaluation:



ATTRITION RATE



ATTRITION RATE
2020



GROWTH IN
FARMERS ENROLLED
(2021 VS. 2020)

There are a few reasons that we hypothesize that contributed to increased attrition rate this year compared to last year:

1. Continued online training (and ubiquitous use of it in 2021) may have led to fatigue with virtual interactions for the participants;
2. We had an increased in enrollment and larger group of participants, and may have missed the provide more personal follow-up to maintain their interest and interaction.

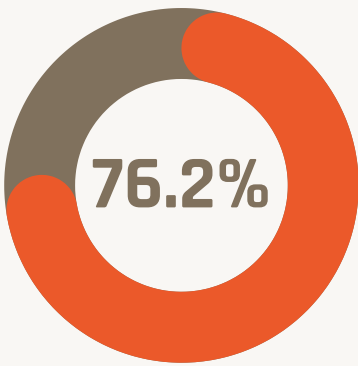
On Program Reach:

2.8 &
1,098

The program seeks to not only provide these tools for the participants but also for their families. At the post-program survey, we learned that on average, each participant is able to share their new knowledge with 2.8 people at a farm level. Overall, this program and the curriculum has directly reached a total of 585 people in Costa Rica. Indirectly, the program reached a total of 1,098 people based on an average of 4.5 members per family.

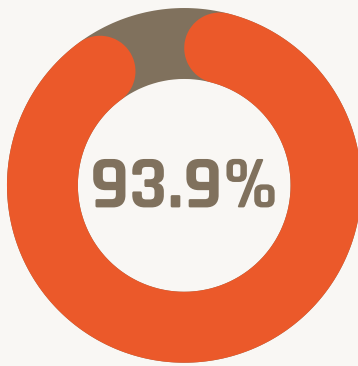
MONITORING, EVALUATION & IMPACT

Impact:



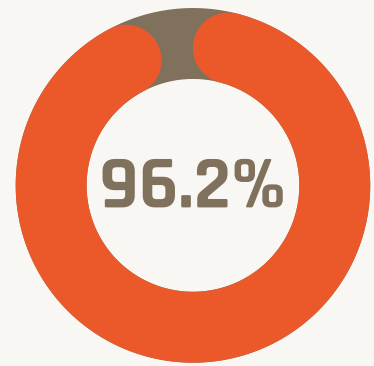
NET PROMOTER SCORE**

** NPS has been calculated by subtracting detractors (those that are in disagreement with the statement 'if they would recommend the program to others') from promoters (those that have indicated "strongly agree"); those that have 'agreed' to the statement has not been counted as promoter, but rather as passive.



FARMER SATISFACTION SCORE***

FSC includes those that have indicated their expectations for the programs being met.



PROGRAM CONTINUATION RATE ****

**** Participants that have expressed their commitment to continuing their participation in BV's training programs in the future.

On Business Potential:

94.6%

PRODUCTIVITY

94.6% of the participants expressed that they have gained tools to improve productivity of their farm through the training;

88.5%

PROFITS

88.5% of the participants expressed that they have gained tools to improve profitability of their farm through the training;

95.4%

QUALITY

95.4% of the participants expressed that they have gained tools to improve quality of their coffee product through the training;



During Monitoring and Evaluation visit in Fralles / Photo taken by Fernanda Carrillo

www.beanvoage.org/care-trade

WHAT DID WE LEARN?



On Learning Styles:

Most of the producers indicate that they enjoyed reading, practicing and visually (taking notes, making diagrams and conceptual maps) on their phones.

Taking notes in writing during the whatsapp session (as well as the written record of the chats in the group session) allows them to return to the content and review. They indicate that they like the virtual support of facilitator during the sessions as they are able to answer questions and/or clarify any concepts.

39.2% indicated that they studied the contents at night while 6.9% indicated having done so during morning hours. 28.5% indicated having studied the contents while doing other tasks. 88.5% indicated having read the theory, and watched all the videos before the session while 40% expressed taking active notes studying the content. About 29.2% indicated that they reviewed the contents after the live session.



On Duration

Most producers would prefer to have longer training programs, somewhere between 4-6 months. During focus group conversations, some producers expressed that the 3 month timeline was perfect (12-weeks of training), but requested to have two sessions per week and to avoid any training during the harvest season.

WHAT DID WE LEARN?

On Modality:

Participants indicate that they like the virtual modality, because it allows them to carry out different tasks at home or at work and reduces travel time; but they would like to see a mix between virtual and in-person exercises and field visits.

Amongst those that discontinued the program expressed their preference of Zoom or Teams over WhatsApp for learning experiences. Amongst those that completed the program, there was a mixture of response where some indicated their preference over Zoom for more interactive nature of the platform, while the others prefer WhatsApp as its written history allow for better future learning/revision experience.

When asked their favorite part of the program, 40.8% indicated the content to be their favorite part while 20.8% expressed WhatsApp as a learning tool. 19% rated Master Classes to be their favorite, and 11% facilitators, 6.9% the order of the contents.

It is interesting to compare with their responses to the least favorite part of the program where the largest group of 29.2% indicated WhatsApp to be their least favorite part.

On Future Learning:

Participants expressed interest and need for the following training in the future Care Trade programs:

- **Production:** organic fertilizer, alternative approach to chemical fertilizer, precision agriculture, coffee farm maintenance, fumigation, coffee varieties recommendation by region, understanding the chemical terms (on fertilizer formula, etc.), processing and quality, introduction of animals to the farm, supply chain;
- **Market and Commercialization*:** commercialization, feasibility study for a coffee venture, export coffee and client acquisition, exporter registration, domestic sales of coffee;
- **Finance and Administration:** calculation of the purchase of inputs and application periods, occupational health, legislation -how to be entrepreneurs-, land ownership, insurance for farm workers, how to reach institutions and be heard**, definition of prices, paperwork (hacienda, ICAFE, liquidations).

*The theme of commercialization was the one that was repeated the most within the answers of the participants..

**The proposal to be heard in institutions can be associated with agency, assertive communication and, in addition, it can be an important piece of information to share with institutions so that it is taken into account when providing service to the public. As well as training in gender gaps.

TESTIMONIALS

Among the reasons for participants to recommend this program to other people, participants expressed: personal growth, acquiring tools as producers, transformation of knowledge capacity, improved productivity over time, the ease of use of the learning tool, the preparation of the facilitators, general enjoyment of the diverse content and facilitators.

"You learn in an easy way, not only about coffee, but also about different topics, in a framework of respect among all, with trained people and a planned program to be able to understand each topic in the best way."



"I felt loved and care for, as part of the program!"

"It is a technical assistance in education of the highest level accessible to the coffee population"

"This program empowers, motivates and educates"



LOOKING FORWARD

Based on the feedback received from this program, we would like to further incorporate a **semi-hybrid model** for our programs in 2022.

Furthermore, we conducted a series of in-depth interviews with our participants to learn about topics that they want to learn more about.

Below are a few topics that we hope to incorporate into our 2022 and beyond curriculum development process:

- **Climate and Coffee:** Organic fertilizers, fertilizer supplements, precision agriculture, farm maintenance, fumigation, varieties by region, processing and quality control, introduction of animals to the farm.
- **Market Readiness:** commercialization, feasibility study for a coffee venture, coffee exportation process, understanding of the specialty coffee market, requirements to be an exporter, and national coffee sales market.
- **Finance and Administration:** budgeting, occupation health, entrepreneurship, resource mobilization, price definition, and legal paperwork for businesses.

In addition, the **2022 iteration of the program will look at delivering micro-grants** at the end of the program for farmers to further implement these tools and lessons at a farm and business level.

PARTNERS

This project was co-financed through the generous contribution of:

- Roddenberry Foundation
- Red Empress Foundation
- Skees Family Foundation
- CoopeAnde
- Yara International
- Neues Schwarz Roastery.

In addition, we would like to express our gratitude to the following institutions for their support of the program:

- The Tropical Agricultural Research and Higher Education Center (CATIE)
- Coffee Institute of Costa Rica (ICAFFE)
- Strachan Foundation
- La Ruta del Clima
- Foro al Grano



ACKNOWLEDGEMENTS & CONTACT

This report was written and published by Bean Voyage in April 2022. The data was collected from 204 respondents that participated in Bean Voyage's Care Trade program in 2021.

It was originally written in Spanish.

The ownership of the data and any information shared in this report belongs to Bean Voyage.

For any citation, and usage of the data, please get in touch with the team at hello@beanvoyage.org.

Should you have any questions or comments, please reach out to: hello@beanvoyage.org.

Visit www.beanvoyage.org for more information!



View from Shamba / Photo taken by Fernanda Carrillo

www.beanvoyage.org/care-trade

APPENDICES:

On Learning Patterns:

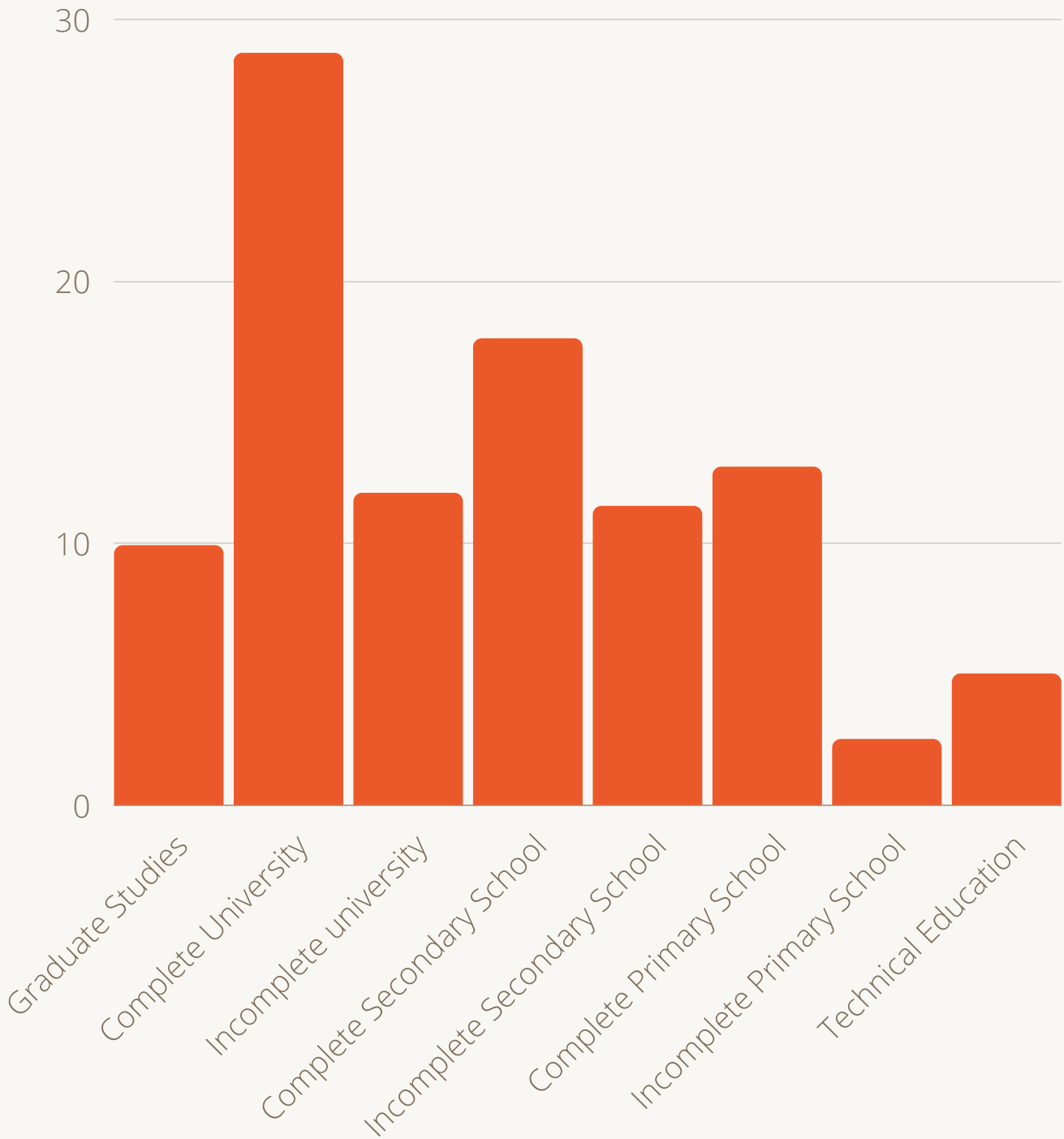
Time of the day to study the content	%	Note
At night	39.2	88.5% read the theory and watched the videos while 40% took active notes of the contents. 29.2% reviewed the contents after the session. 1 person responded having read all the documents/infographics but never watched the videos, while another person indicated having recorded her own voice as she was reading the content to review using the audio file at a later time.
Inbetween other activities	28.5	
In the evening	23.8	
In the morning	6.9	
No set time	1.5	
*93.8% indicated the duration of each video was appropriate for them. 3.8% indicated it being too long.		
** For the synchronous session, 96.2% said the meeting time duration was appropriate for them. 3 indicated it was too short and 2 indicated it being too long.		

On Topics:

The most attractive topic in terms of	Content (infographic, video, etc.) %	Explanation %	Master Classes %	Is this topic newly introduced to you/your farm/business? (Yes %)
Agroforestry	27.2	23.8	14.6	47.7
Soil Management	20	15.1	14.6	69.2
Introduction to climate change	14.4	12.7	12.2	6.9
Women in our history	11.2	14.3	14.6	15.4
Plant care	10.4	10.3	11.4	51.5
Biodiversity	9.6	10.3	15.4	43.8
Water Management	4	4.8	9.8	38.5
Conflict Resolution	3.2	7.1	6.5	11.5
Storytelling		1.6	N/A	3.1

MEET THE CLASS 2021 continued

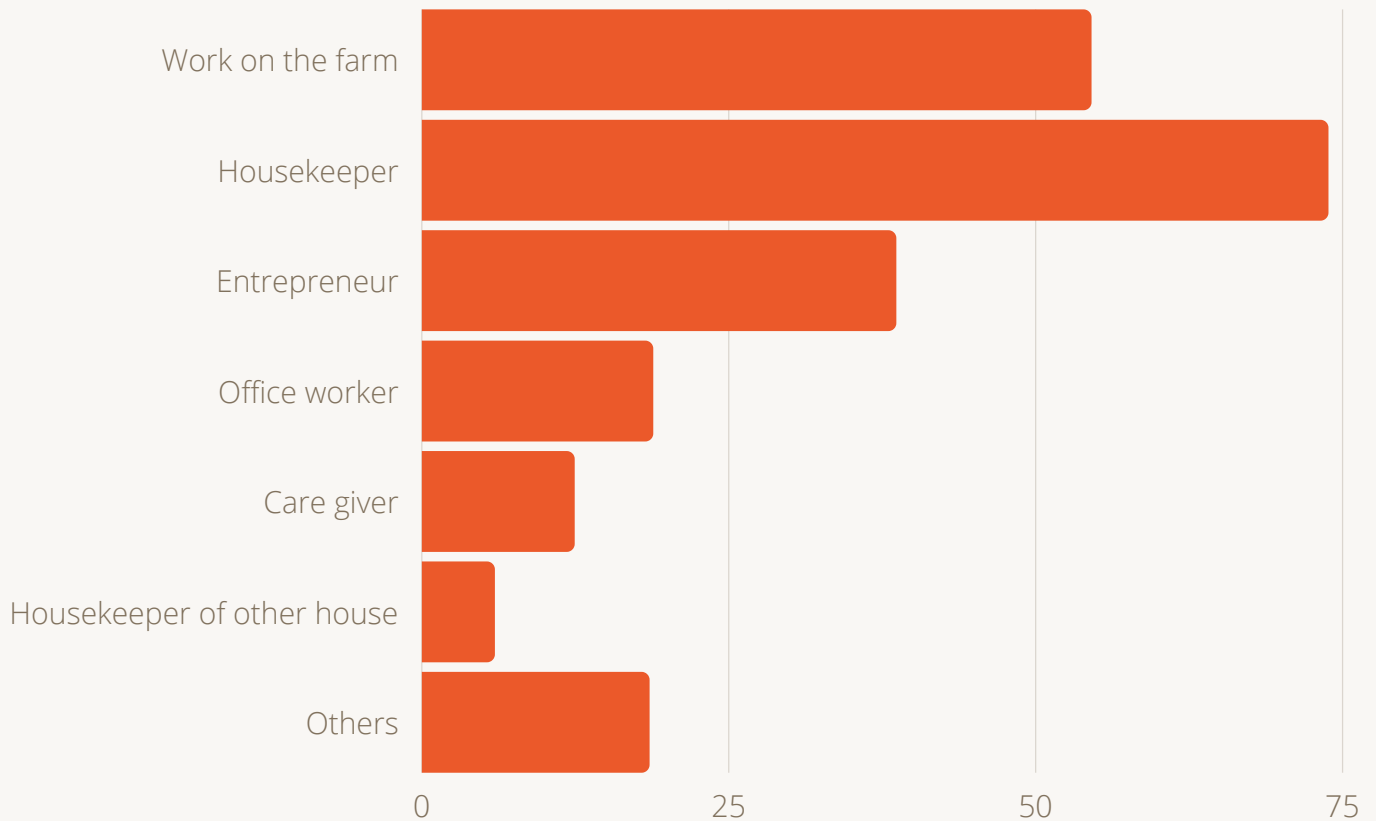
By Education



In this year's cohort, 56.4% of the participants have completed secondary school and/or university, while 26.8% of the participants have not completed the formal education.

MEET THE CLASS 2021

By Economic Activities

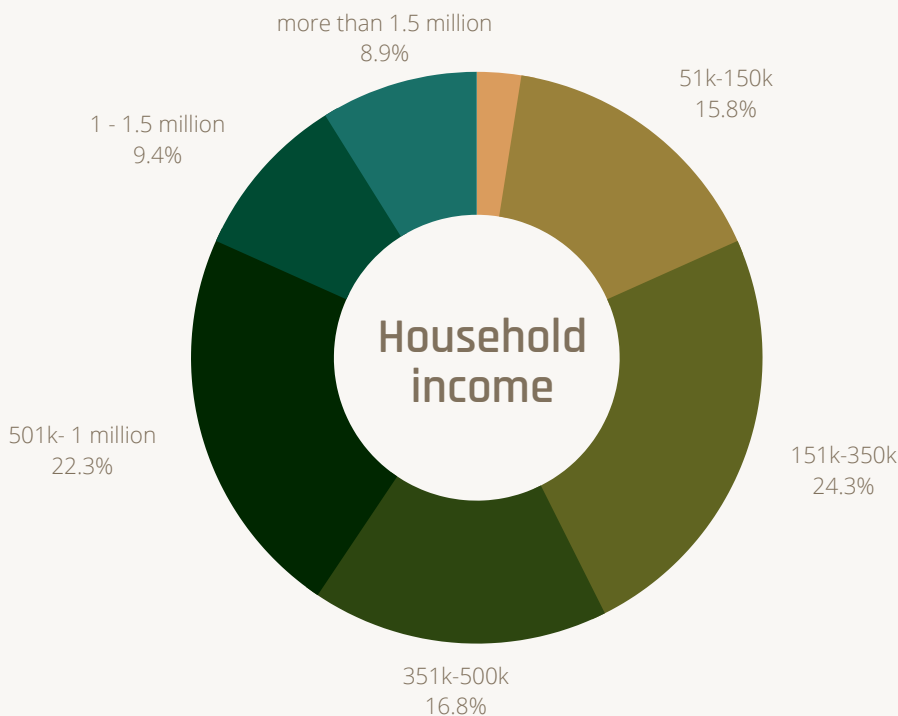
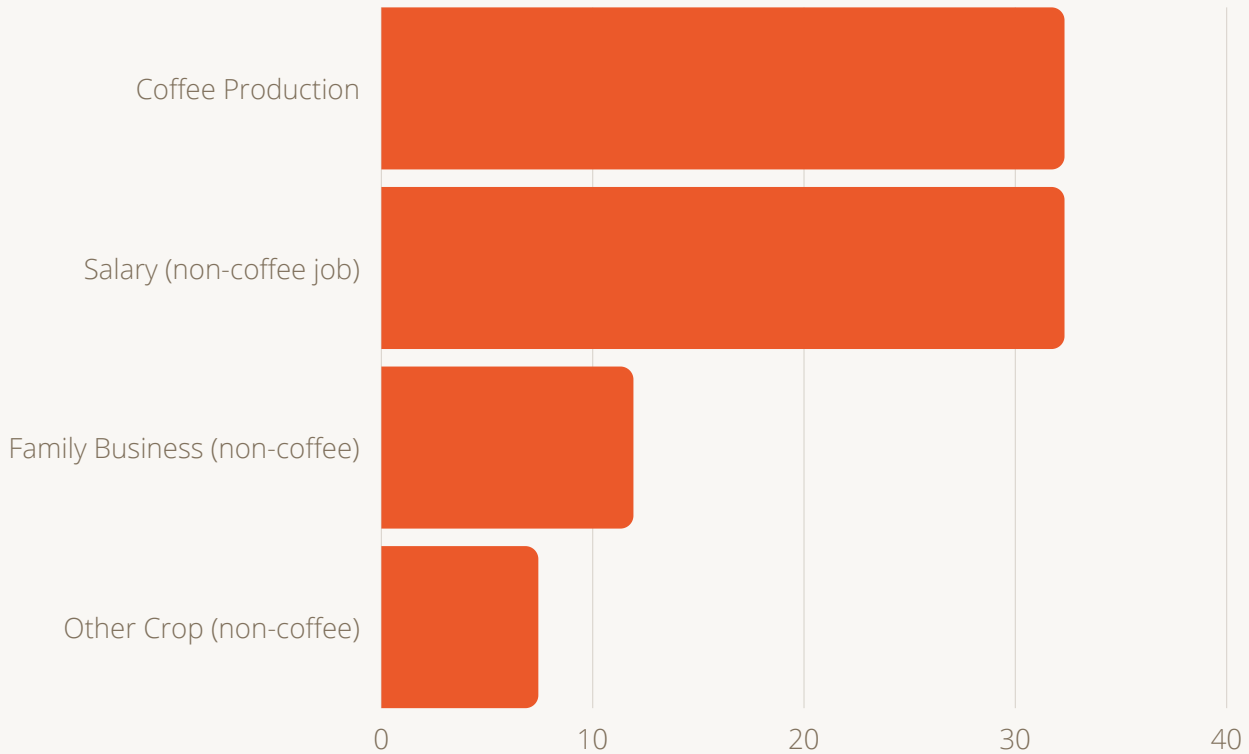


When asked to describe their primary economic activities, 73.8% describe their role as a housekeeper of their own home. 54.5% refer to their role on the farm as their primary activity while 38.6% as an entrepreneur.

Amongst them, 56.9% receive financial remuneration for their labor. However, 43.1% indicated that they do not receive any financial remuneration for their labor. On the other hand, 82.7% has indicated that they have access to CCSS (governmental social security in Costa Rica).

MEET THE CLASS 2021

By Sources of Income



24.3% indicate having a household income between 151k-350k colones, while 22.3% having a total household income between 22.3%.

15.8% indicated earning between 51k- 150k a month as a household.

As of April, 2022, 150,000 colones equals USD 230.

in 2022, minimum wage for university degree holder in Costa Rica is USD 886*.

* <https://www.mtss.go.cr/temas-laborales/salarios/lista-salarios.html>

MEET THE CLASS 2021

By Finance & Other

70.
3%

PERCEPTION OF INCOME

70.3% indicated that they are satisfied with the level of income (total household) for their family, and are able to cover necessary expenses at the household level.

35.
6%

BOOK KEEPING

35.6% indicated that they keep financial journal of their expenses, while 64.4% indicated not keeping financial journal, and not being fully aware of their expenses.

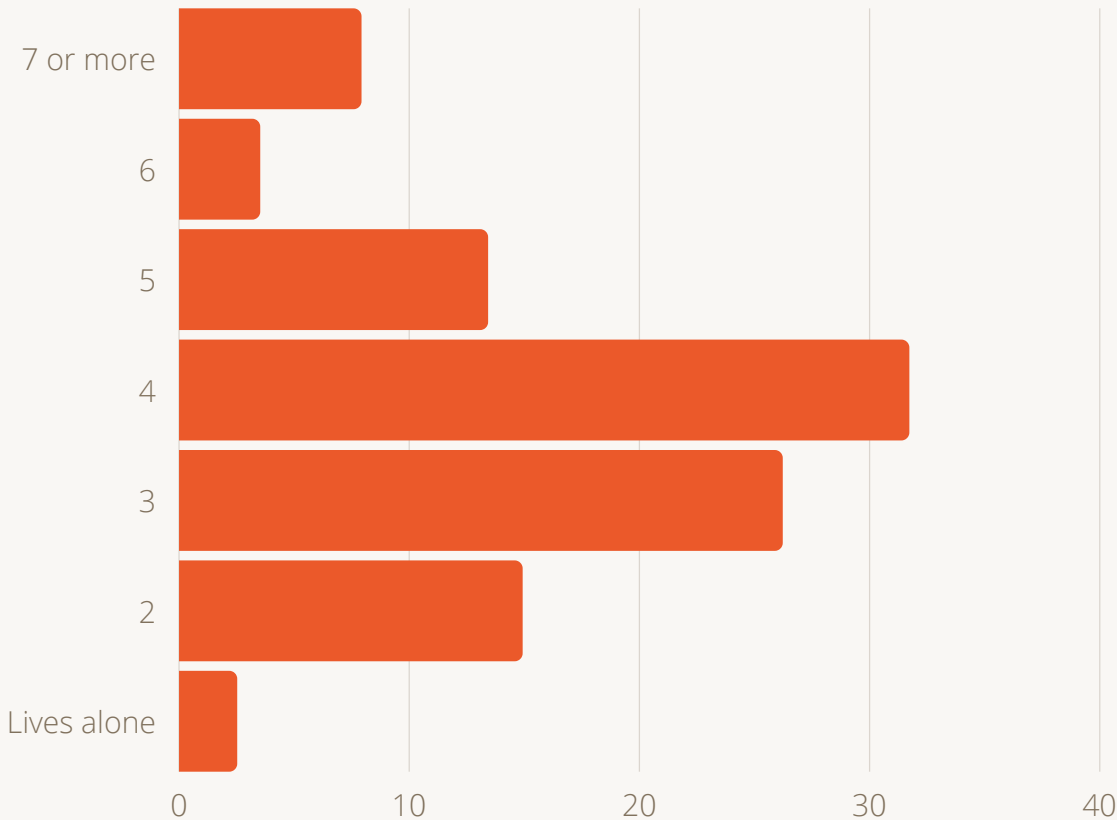
76.
7%

INCOME FROM COFFEE

76.7% of the respondents indicated that income earned from coffee is not enough to cover expenses on the coffee farm, while 68.8% indicated that it's not enough to cover household expenses.

MEET THE CLASS 2021

By Number of members in the household



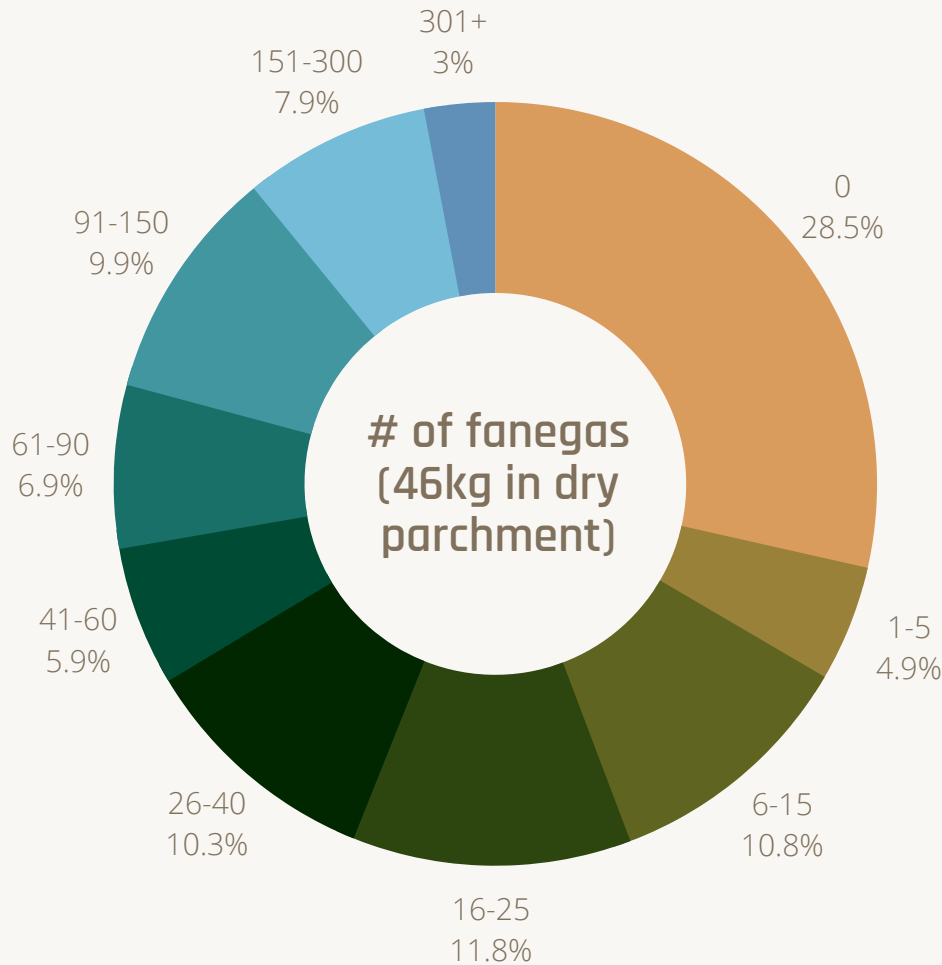
Amongst the respondents that responded having more than 7 members in their household (economically dependent), 81.25% indicated having a total income of 501,000-1,500,000 colones (**USD 769.23-2,300**) a month.

Amongst the respondents, 74.3% indicated having more than one member of the household being a student, with 11% of the participants indicating more than 5 people being students.

39.1% of the respondents indicated having more than 2 economically active members in their household, with 37.6% indicated that their partner being the only person contributing financially, with 12.9% indicating that they are the only breadwinner for the family.

MEET THE CLASS 2021

By Annual Coffee Production (2019-20)

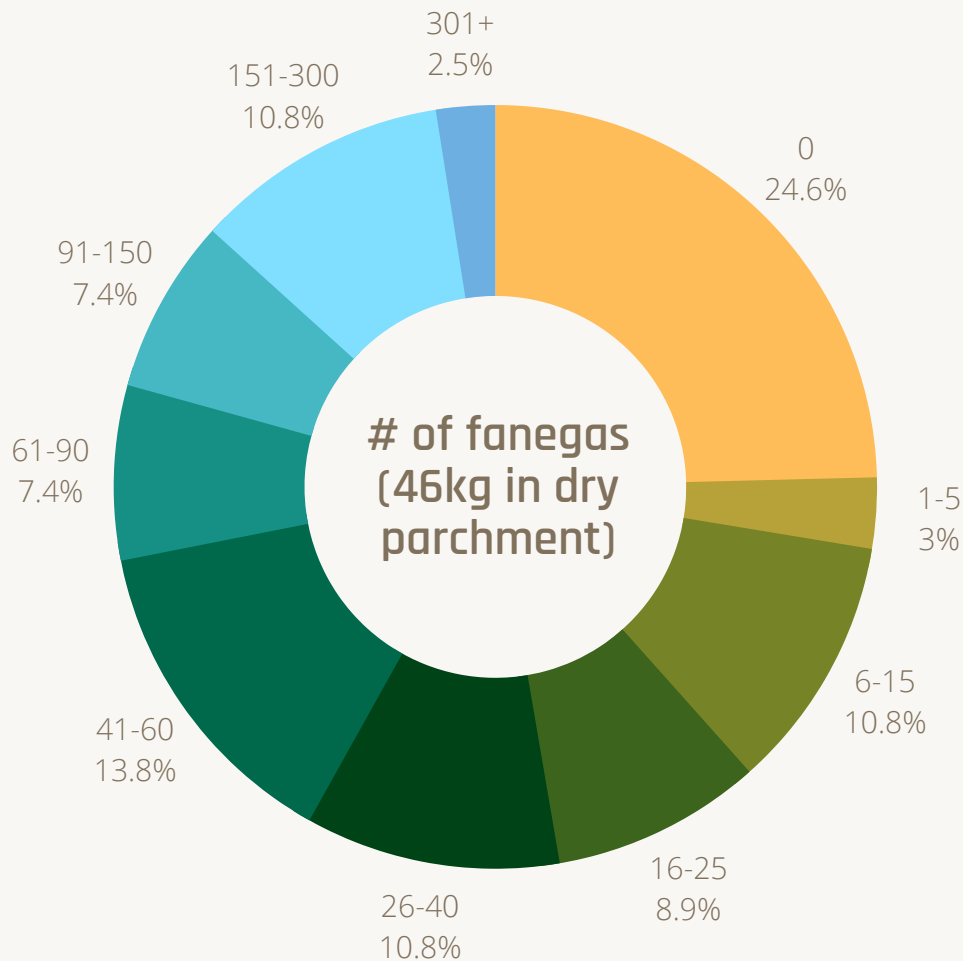


The largest group - 28.5% of the participants - indicated not having had any production in 2019-20 harvest year, for having just started or renovated their farms. The second largest group of 11.9% of the participants indicated having harvested 16-25 fanegas, while 10.9% harvested 6-15 fanegas.

They reported earning an average of 67,235 colones per fanega (USD 114.29 as of April 2020).

MEET THE CLASS 2021

By Annual Coffee Production (2020-21)

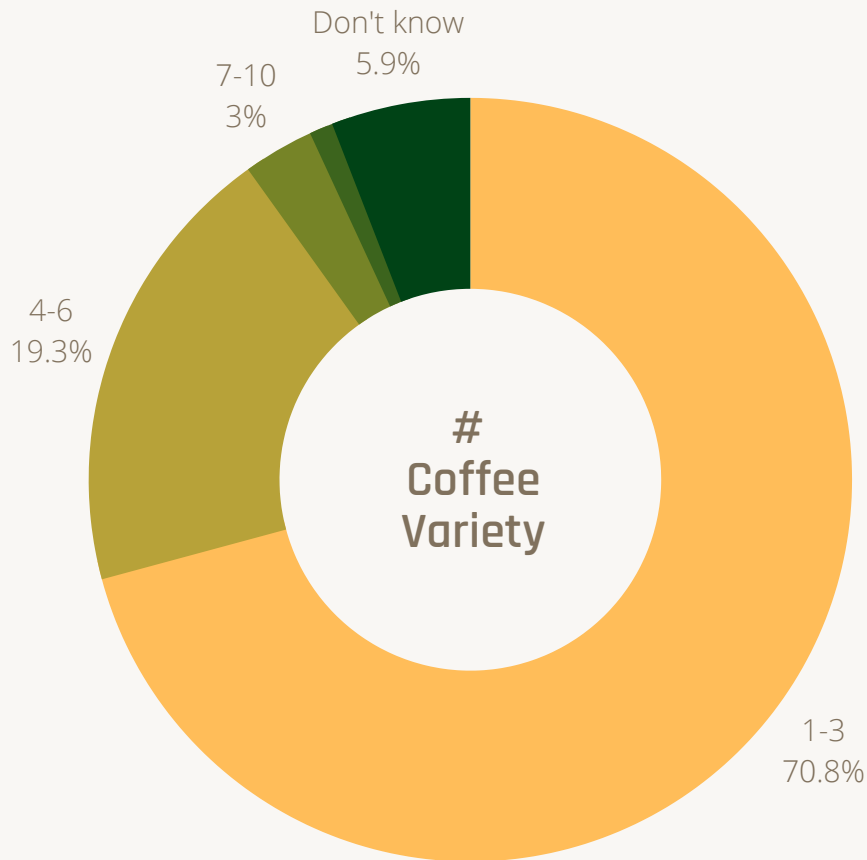


The largest group - 24.6% of the participants - indicated not having had any production in 2020-21 harvest year, for having just started or renovated their farms. The second largest group of 13.9% of the participants indicated having harvested 41-60 fanegas, while 10.9% harvested 6-15 fanegas and 26-40% fanegas.

They reported earning an average of 61,330 colones per fanega (USD 98 as of April 2021).

MEET THE CLASS 2021

By Coffee Production

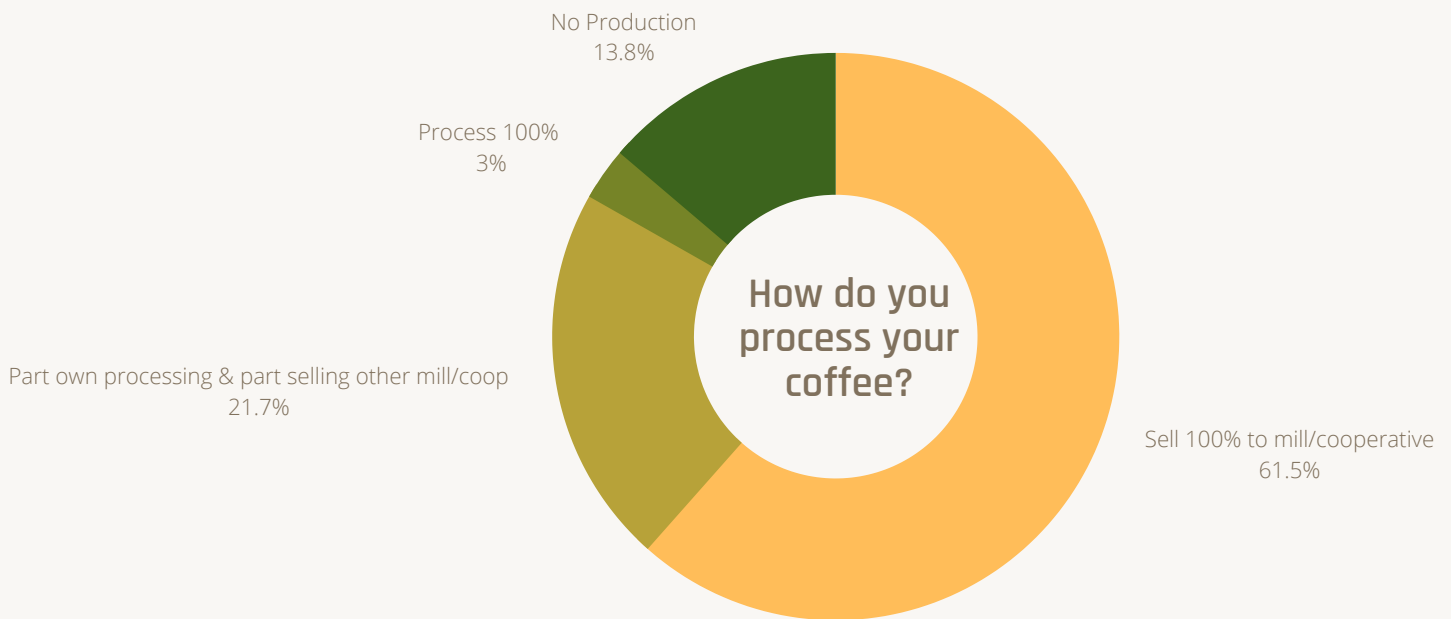


The majority of the participants have 1-3 varieties on their farm. Most mentioned variety is Caturra (54%), Catuai (46%), Costa Rica 95 (44.6%) and Obata (42.1%).

63.6% mention that after pruning, they use the branches and leaves to protect the soil.

MEET THE CLASS 2021

By Coffee Production & Processing



80.7% indicated that they are not registered at ICAFE and most sell their coffees to cooperatives, or other mills in the region.

24.8% process all, or part of their coffee on their own at their mill. Amongst them, 22.3% indicated the majority of milling activities are done by another family member, and 11.9% doing majority of their milling activities.

Amongst those that indicated that they process their own coffee, 18% say they also sell their coffee roasted, while only 6% has ever learned to cup. 10% stated that their coffee scores 83 points or higher on Q-grading system.

MEET THE CLASS 2021

By Coffee Knowledge & Other

47.
5 %

ROASTING

47.5% never have roasted their own coffee, 16.8% tried a pot-roasting, and 2.5% indicated having a roasting machine.

66.
8 %

CUPPING

17.3% has taken a cupping course before, 30.7% indicated having cupped their own coffee. 66.8% of the participants don't know their coffee's quality (cupping score).

80
%

ACCESS TO BASIC SERVICES

At least 80% indicated having access to basic necessities such as drinking water, sanitation and school for children.



Coffee flower ready to bloom / Photo taken by Fernanda Carrillo

www.beanvoyage.org/care-trade