

# **AGROEMPRENDE CACAO**

**Methodological Guide**

**for the**

**Measurement and verification of payment indicators**

**(February 2020)**

**Canada** 

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Annex A: List of departments and municipalities covered by the project

Annex B: List of organizations linked to AGROEMPENDE CACAO as of December 31, 2019

Annex C: Women's empowerment index (indicator 3.2) - agreed score

Annex D: Example of crop forecast calculation, heterogeneous plot (grouping of varieties or clones) of area > to 1 ha

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## 1. CONTEXT

AGROEMPRENDE CACAO is a six-year (72-months) project aimed at improving the living conditions of cocoa farming families linked - or to be linked - to cocoa association enterprises in different regions of Colombia. Through a strategy to support the development of the cocoa value chain, the project will promote the economic empowerment of 5,000 family cocoa enterprises by strengthening the management practices of their local associative enterprises and by facilitating the emergence and consolidation of profitable, innovative, clean, sustainable and inclusive regional cooperative enterprises. AGROEMPRENDE CACAO operates in several regions: Middle and Lower Putumayo, Meta, Cesar, Western Boyacá and Magdalena Medio (in Annex A, the list of departments and municipalities covered by the project is attached).

Among the innovative aspects that stand out, the AGROEMPRENDE CACAO project will be co-financed by the Canadian Cooperation and several other entities which will contribute an amount at least equal to the amount contributed by Canada. The largest contributions will come from the energy-mining sector, and to a lesser extent from state entities and private non-extractive companies. The CA - Contribution Agreement - was signed with Canada on March 26, 2019.

Another important innovation is that the CA that was signed with Canada foresees that the Government of Canada will contribute to it based on results that SOCODEVI will have to achieve in the course of the project. This brought about the need to have a methodology for measuring results indicators that allows both SOCODEVI and the Government of Canada to be confident about the progression and achievement of results.

The purpose of this methodological guide is to set out the steps to be taken to collect the data needed to measure payment indicators, perform their analysis and report on the level of coverage.

## 2. EXPECTED RESULTS

The expected results (or ‘outcomes’), and their relative weight in the pay-by-result scheme, are as follows:

Results	Relative weight within the payment scheme
Outcome 1: Co-financing committed to the Project from third parties	15%
Outcome 2: Improved productivity for cacao farming households beneficiaries of the Project	15%
Outcome 3.1: Increased participation of women in their associative enterprises a) Number of associations that have adopted gender equality plans b) Proportion of women representation on the decision-making bodies of the associations	a) = 3,75% b) = 3,75%
Outcome 3.2: Increased leadership and access to resources for women cacao producers	7,5%
Outcome 4: Increased hectares of cacao plantation managed under climate-resilient agroforestry systems	30%
Outcome 5.1: Increased volume of cacao sold by associations	10%
Outcome 5.2: Sustainability of cacao associations a) Associations total sales b) Associations profit margin c) Rate of payment by members for the associations revolving funds	a) = 5% b) = 5% c) = 5%
<b>TOTAL</b>	<b>100%</b>

Result 1 was achieved and is not considered in this Methodological Guide.

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### 3. DEFINITIONS

#### 3.1 BASIC SAMPLING UNIT

The sample unit is the FAMILY. A FAMILY is defined as "a group of people who live and eat together, under the same roof". For the purposes of this questionnaire, a FAMILY must be limited to the main couple, their children and dependents according to the conditions and/or administrator of the farm, all of whom must live together for at least 6 continuous months to be considered part of the family.

A family linked to AGROEMPRENDE CACAO is considered when one member of the main couple is a member of an association or cooperative accompanied by the project. Every year, SOCODEVI will provide an updated list of the supported organizations with their list of registered partners. The list of organizations as of December 31, 2019, with the number of registered partners, is attached as Appendix B.

In summary, by region and by municipality, we have the following picture as of December 2019:

Region	Municipalities	# organizations	# of partners	# partners	Total membership as of 31/12/2019
Lower Putumayo	San Miguel, Orito, Guamuez Valley	4	264	130	394
Middle Putumayo	Pto Asís, Pto Caicedo, Mocoa, Villagarzón and Pto Guzmán; Piamonte (Cauca)	4	159	61	220
Meta	Villavicencio, Acacías, Castilla La Nueva, Guamal, Cubarral, El Castillo, Dorado, Granada, San Martín, San Carlos de Guaroa, Pto Lleras, Vista Hermosa, Fuente de Oro, Mesetas, Lejanías	11	689	378	1067
Cesar	La Jagua de Ibérico, Becerril, El Paso, Agustín Codazzi, La Paz, San Diego	6	514	206	720
Magdalena Medio	Pto Boyaca (Boyacá), Pto Nare (Antioquia), Bolivar and Cimitarra (Santander)	3	197	99	296
West of Boyaca	Muzo, Quípama, Pauna, San Pablo de Borbur, Otanche (Boyacá); La Belleza and Florián (Santander)	7	271	98	369
<b>6 regional offices</b>	<b>41 municipalities</b>	<b>35 base organizations</b>			<b>3066</b>

#### 3.2 INTERVIEW AT THE FAMILY LEVEL

The objective of the interview is to obtain information to understand the status of participation of FAMILY members, both women and men, in agricultural activities and decision-making in the family business. It also serves to carry out sampling of the cocoa crops managed by the families.

Before the interview, the interviewing team makes an appointment by telephone with the members of the FAMILY to define the day and time for the completion of the questionnaire. In the summon, the FAMILY will be informed:

- The name of the professionals who will visit them.

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- The estimated time for the activity, which will be at least 120 minutes. Depending on the number of PLOTS to be diagnosed, the survey may take longer. If the number of PLOTS significantly extends the duration of the survey, the participation of the FAMILY in the visit to the PLOTS may be voluntary, but the survey staff must authorize their entry.
- Two people are expected to be interviewed: the adult man and the adult woman who are responsible for decisions related to agricultural production activities.
- If the simultaneous presence of the woman and the man is not possible (prolonged absence, single-parent FAMILY or FAMILY with the presence of only one gender), the interview can be carried out with only one respondent (woman or man); however, if neither respondent is available, the FAMILY will have to be replaced by another for the survey.
- FAMILIES in extraordinary conditions in relation to widowed parents with children are not excluded. But it will always be defined in relation to a couple (two persons).

The interview of each FAMILY must be carried out in teams of two professionals, one woman and one man, who must have been trained in gender equality issues, in order to have the necessary sensitivity to not induce prejudices in the conception of who is responsible for what; and in the bases of technical management of a cocoa crop in order to base their appreciation of the technical variables on adequate criteria. It is recommended that everyone has their own tool (telephone or tablet) for data collection.

### 3.3 INFORMED CONSENT

Before starting to interview the two identified respondents, one of the two interviewers will introduce the survey and request the consent of the respondents.

It is very important to ask for the consent of every person in the FAMILY, woman and man.

It is understood that:

- If both respondents are present, each must give consent for the interview to be conducted.
- If only one of them agrees, the interview should not take place.
- If both agree, the interview will take place.
- If there is only one respondent, male or female, they must give consent for the interview to take place.

## 4. QUESTIONNAIRE PROCESS

In the application of the questionnaire, three sections will be addressed:

- **FAMILY.** The first section of the questionnaire is only completed once per FAMILY. For this section, the interview is carried out with the two persons surveyed, addressing the questions to both persons simultaneously. The aim is to obtain consensual answers about the different characteristics of the FAMILY.
- **PEOPLE.** The second part of the questionnaire has an emphasis on people and is done by developing the questions separately, that is, the woman will work with the interviewer and the man with the interviewer, this in order to guarantee, as far as possible, a comfortable and confidential environment. The same questions will be asked to both respondents, seeking to ensure that each respondent's answers are independent. If there is only one person to be surveyed, he or she will answer the questions with the interviewer of the same gender. For this questionnaire, the interviewer should make sure that there are no other people who can hear the respondent's answers, especially the spouse. Individual interviews seek to avoid bias in people's responses, particularly those of women, and the risk of a delicate situation in the FAMILY if women's responses are heard when issues such as power and decision-making are discussed.
- **PLOTS and INFRASTRUCTURE.** The third part of the questionnaire is carried out with both persons surveyed and the questions will be asked to both of them simultaneously.

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Considering the risk of finding ourselves in cultural contexts where women often tend to speak/participate less in the presence of men/husbands and where it is the norm for men to speak on behalf of the family, it is suggested that:

- The interviewers start by mentioning that there are no right or wrong answers.
- Throughout the simultaneous interviews, interviewers should ensure eye contact with both women and men and, if necessary, use facilitation techniques to motivate both to participate and respond as much as possible.
- The interviewers should pay attention to both people so that both feel encouraged to answer, without forcing things; for example, it is clear that the woman does not feel comfortable answering, not insisting.
- Interviewers should pay particular attention that both interviewees always feel comfortable, and safe, trying to reassure people if necessary. For example, answering several questions in a row negatively may cause discomfort or embarrassment to the interviewee, who may feel that they are not responding well or that they do not know much about the topic. If the interviewer identifies this situation, reassure participants by reminding them, for example, that there is no problem, that the question will be rephrased or not, or that they will move on to the next question.
- For the entire survey process at the household and individual level, it is essential that the interviewing team has an open attitude towards gender equality considerations. It should not be assumed that the man, because he is a man, is the person who has the best knowledge about cocoa cultivation, or that the woman, because she is a woman, does not know about the crop.

The questionnaire agreed upon between the Canadian Embassy and SOCODEVI is found in Annex C. The score to be accorded to each response in the section of the questionnaire dealing with PEOPLE is found in Annex D.

## 5. INFORMATION GATHERING IN THE PLOTS

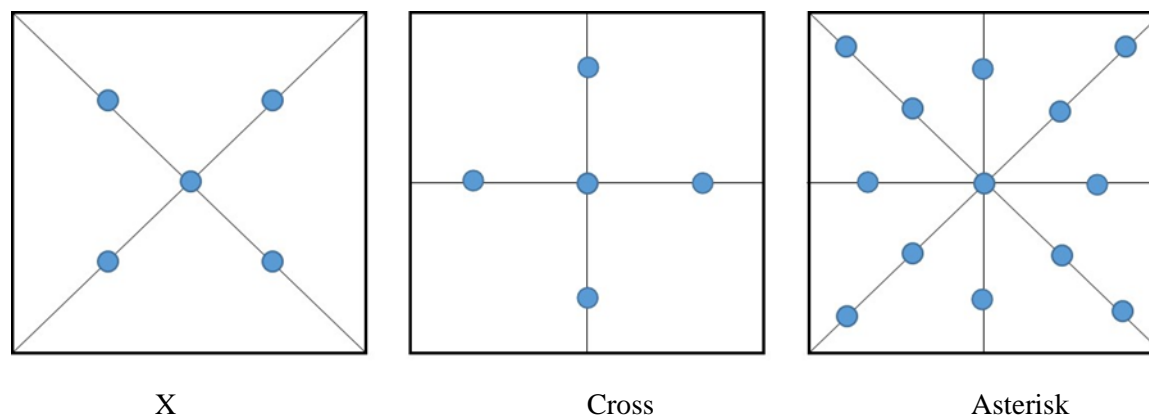
If the family does not have a production record, at the end of the survey of the plots, a sampling of the existing cocoa fields should be carried out to determine the cocoa production of the farm.

The procedure for taking the information will be detailed below:

### 5.1 SAMPLING PATTERN

It is proposed to use sampling patterns that aim at identifying as much as possible the internal variability of the yield within the plots (indicated in Figure 2: in equals, cross or asterisk), depending on the number of sampling points to be made in the lot.

Figure 2. Sampling patterns as a function of the number of total samples



## 5.2 DETERMINING THE NUMBER OF PRODUCTIVE TREES PER HECTARE

**Definition of a productive tree:** A cloned cocoa tree is determined to be productive if it produces more than 1 kg of dry cocoa per year or more than 30 healthy cocoa ears per year. For hybrid cocoa material, it is determined as productive if it produces more than 0.6 kg of dry cocoa per year. A tree that was grafted (renewed) and is still in the vegetative stage will count as a productive tree.

In order to determine the total number of productive cocoa trees per hectare (NTACP), sampling is carried out taking into account

- For a plot of 1 ha or less, set a minimum of 4 sampling points. For a plot larger than 1 ha, fix 6 sampling points.
- At one of these sampling points, delimit an area of 10m x 10m (100 m<sup>2</sup>) that is representative of the trees on the plot. For example: a newly planted area should not be chosen if the majority of the plot has 15 year old trees.
- In the area of 10m x 10m, count the number of productive trees.
- This number shall indicate the number of productive trees in 100 m<sup>2</sup>; to reach the number of productive trees per hectare, it shall be multiplied by 100.
- It is recommended to avoid taking data at the edges of the lots to eliminate the edge effect on sampling.



## 5.3 CROP FORECAST: DETERMINE THE TOTAL KILOGRAMS PER HECTARE PRODUCED BY THE COCOA CROP

### 5.3.1 DEFINITIONS

- **Sampled Tree (STA):** Cocoa tree that has been surveyed for information such as Clone, Healthy fruits (ears > 14 cm), unhealthy fruits (See Survey Instrument - Annex E).
- **Total Fruit Tree Sampled (TFaM):** Corresponds to the total number of ears greater than 14 cm that the sampled tree has.
- **Total Unhealthy Fruits Sampled Tree (TFNSaM):** fruits larger than 14 cm of Sampled Tree (AM), which do NOT present the physical and health characteristics required for use in cocoa marketing.
- **Healthy Fruit Sampled Tree (FSaM):** Corresponds to the difference between Total Fruit Sampled Tree (TFaM) and Total Unhealthy Fruit Sampled Tree (TFNSaM).
- **Forecast sampling (Mp):** Corresponds to the number of trees sampled in the plot according to the size of the plot. For plots smaller than or equal to 1 ha, corresponds to 40 trees (plots larger than 1 ha correspond to 60 trees sampled), distributed in 4 (or 6) samplings.
- **Ear Index (EI):** Number of ears of a specific clone or variety, to complete one kilogram of cocoa.

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CLONE	Ear Index (EI)	CLONE	Ear Index (EI)	CLONE	Ear Index (EI)
CAP34	16	FLE 3*	16	MON1	19
CAU37	19	FSA 11	16	NN	25
CAU39	22	FSA 12*	21	SCC 61	14
CAU43	19	FSA 13*	24	COLOMBIA NATIONAL TEAM	21
CCN 51	14	FSV 41*	12	SUPER TREES	19
CNCH12	16	FTA 2*	15	TCS01	9
CSC 61	15	Hybrid	25	TCS06	12
TSE8	14	ICS 1	18	TSH 565	19
FEAR 12	21	ICS 39	13	TSH 812	21
FEAR 5*	18	ICS 60	14	UF611	19
FEC 1	18	ICS 95	19	UF613	19
FEC 2*	18	BMI 67	20		
FLE 2*	14	LUKER 40	18		

Source: Fedecacao, 2017\*; National Literature Production Reports

**Average production kilograms of cocoa per tree (PPCA):** Information obtained for each of the trees from the Healthy Fruits Division (FSa) and the Ear Index (PPCA= FSa/IM)

- **Total number of productive cocoa trees (NTACP):** Corresponds to the total number of productive cocoa trees (see section 5.2), reported in the Survey Instrument
- **Total Cocoa Production of Trees (TKgPC):** Product of the multiplication of Index Cob Samples by the total number of trees in the plot TKgPC= PPCA x NTACP
- **Total Cocoa Area (TCA):** Corresponds to the total area reported in the Survey Instrument)
- **Cocoa production per hectare (PCHKg):** Value obtained from the division of Total production of cocoa in the total area of cocoa PCHKg = TKgPC / ATC

### 5.3.2 PROCEDURE

**1. Determination of Healthy Fruit Sampled Tree (FSaM):**

$$FSaM = TFaM - TFNSaM.$$

- 2. Cocoa tree production:** From the survey of the sampled tree plots (AM), tree by tree, the number of Healthy Fruit Trees (FSaM) is obtained and divided by the respective ear index for each clone or variety:

$$AMn = FSaMn / IM(FSan)$$

- 3. Addition of Production Values per Tree:** The sum of all individuals sampled is done according to the Forecast Sampling (Mp), 40 individuals or 60 individuals.

$$\sum PPCA_{(40)} = (AM1 + \dots + AM40) \quad \text{For 40 Individuals (See FSa)}$$

$$\sum PPCA_{(60)} = (AM1 + \dots + AM60) \quad \text{For 60 Individuals (See FSa)}$$



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**4. Calculation of the average tree yield for the sample:** The sum of tree yield values is divided by the number of samples

$$PPCA (40) = \sum PPCA_{(40)} / 40 \quad \text{For 40 individuals}$$

$$PPCA (60) = \sum PPCA_{(60)} / 60 \quad \text{For 60 individuals}$$

**5. Calculation of cocoa production in the total number of productive trees:** To obtain the total value of the trees in the plot, the average product per kilogram should be multiplied by the Total number of productive cocoa trees in the plot (NTACP)

$$TKgPC = PPCA \times NTACP \text{ (reported value in kg)}$$

**6. Calculation of cocoa production per hectare:** The value obtained from the cocoa production of the parcel shall be divided into the total cocoa area (TCA)

$$PCHKg = TKgPC / ATC \text{ (reported value in kg/Ha)}$$

For a better interpretation of the exercise see Annex E.

## 6. PROJECT RESULTS AND INDICATORS

Each payment indicator will then be presented using the following format:

<b>RESULT X:</b> Name of the project outcome
PERFORMANCE INDICATOR #..:
BASELINE DATA:
END OF PROJECT GOAL:
METHOD OF VERIFICATION / SOURCE OF EVIDENCE:
HOW TO GATHER THE INFORMATION:

### 6.1 RESULT 1

Result 1 (Outcome 1) is not the subject of this Guide.

### 6.2 RESULT 2

<b>RESULT 2:</b> Improved Productivity for Cocoa Farming Households Beneficiaries of the Project
<b>YIELD INDICATOR #2:</b> Productivity measured in kilograms of cocoa per hectare per household
<b>BASE LINE DATA:</b> 244.3 kg/ha
<b>END OF PROJECT GOAL:</b> 30% increase in productivity for at least 5,000 households
<b>METHOD OF VERIFICATION / SOURCE OF EVIDENCE:</b> Verified by production and sales documentation where available; and random visits for crop counting following the methodology presented above
<b>HOW TO GET THE INFORMATION:</b> Data stored in ImpactCoop / Field-Sampling Visit / List of members for the number of households

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**Base line**

The result of the baseline study for this performance indicator is 244 kg of cocoa per hectare.

At the time of the baseline study, a total of 2,510 people were registered as partners in the organizations linked to the project.

**Measurement frequency**

The project will carry out the measurement according to the methodology presented in section 5 of this document.

The progress of the indicator will be reported annually, using a random sample among the families linked to the project. A linked FAMILY is a family that is associated to an associative enterprise supported by the AGROEMPRENDE CACAO project.

**Measuring mechanism**

The measurement of the indicator will be carried out taking into account the quantification of the production of the PLOTS of the FAMILIES surveyed, using the verification of the production and sales records of each FAMILY for the period evaluated, listed in SOCODEVI's ImpactCoop.

If the FAMILY does not have production records, the quantification will be carried out under the sampling method presented in section 11, recording it in a Record of visit to the farm, according to the methodology presented in section 5 of this document.

**Verification mechanism**

The information collected in the field will be available for review through the ImpactCoop platform.

**6.3 RESULT 3**

<b>RESULT 3: Increased Women Empowerment</b>
<b>PERFORMANCE INDICATOR #3.1.a:</b> Number of associations that have adopted gender equality plans
<b>BASELINE DATA:</b> 0
<b>END OF PROJECT GOAL:</b> 40
<b>METHOD OF VERIFICATION / SOURCE OF EVIDENCE:</b> Verified by documentation showing that the relevant decision-making body has approved the Gender Equality Action Plan (GAP)
<b>HOW TO COLLECT INFORMATION:</b> Data stored in PerformCoop

**Base line**

At the time the project was launched, no organization linked to the AGROEMPRENDE CACAO project had a GI Action Plan in place or being implemented.

**Measurement frequency**

Progress on the indicator will be reported annually.

**Measuring mechanism**

The measurement of the indicator will be carried out taking into account the quantification of the MI Action Plans of the associative companies formulated and adopted, and reported on the PerformCoop platform, using

- The registration on the PerformCoop platform of the existence of the GI Action Plan Yes/No

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- The minutes of the meeting/assembly/committee that supports the presentation and validation of the GI Action Plan.
- Copies of the MI Action Plans built with each partner company will be available, stored in the project's SharePoint.

**Verification mechanism**

- The MI Action Plan will be reported as adopted on the PerformCoop platform by the SOCODEVI team in the *Management Toolbox*.
- The support document of the tool will be registered in the Sharepoint of AGROEMPRENDE CACAO.

<b>RESULT 3: Increased Women Empowerment</b>
<b>PERFORMANCE INDICATOR #3.1.b:</b> Proportion of female representation in association decision-making bodies
<b>BASELINE DATA:</b> 47% of the associations have a minimum of 30% women in decision-making bodies
<b>END OF PROJECT GOAL:</b> 80% of the associations have a minimum of 30% women in decision-making bodies
<b>METHOD OF VERIFICATION / SOURCE OF EVIDENCE:</b> Verified by official list of decision-making bodies, by association, by gender, by election and appointment records and by chamber of commerce
<b>HOW TO COLLECT INFORMATION:</b> Data stored in PerformCoop

**Base line**

When the project started, 47% of the organizations linked to the project had a minimum of 30% female representation in their decision-making bodies. In annex F, we present the list of organizations with which the baseline was established.

**Measurement frequency**

Progress on the indicator will be reported annually.

**Measuring mechanism**

The indicator is measured in a quantitative way, in which the SOCODEVI team validates in the official records of each organization linked to the boards of directors/board of directors the number of women belonging to them:

- Board of Directors / Consejo de Administración
- Working committees (inscribed in the approved statutes of each organization)
- Supervisory Committee
- Fiscal position, only when you are a member of the association

Once the review of the supports has been carried out, the number of members in the decision-making bodies is recorded, as well as the number of women who are part of these bodies, on the PerformCoop platform, on the Data board.

**Verification mechanism**

- The report in Excel that gives the PerformCoop that can be consulted.
- The supporting documents (election and appointment minutes, Chamber of Commerce certificate) will be registered in the Sharepoint of AGROEMPRENDE CACAO.

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<b>RESULT 3: Increased Women Empowerment</b>
<b>PERFORMANCE INDICATOR #3.2:</b> Proportion of women producers supported by the project with the highest level of empowerment
<b>BASELINE DATA:</b> 34% of the women producers linked to the project have an empowerment score equal to or higher than 13/18.
<b>END OF PROJECT GOAL:</b> 80% of at least 2,500 women obtain or exceed 13/18
<b>METHOD OF VERIFICATION / SOURCE OF EVIDENCE:</b> <b>Verified</b> by a survey based on the 18 questions in the PERSONS module
<b>HOW TO GET THE INFORMATION:</b> Data stored in ImpactCoop

**Base line**

The result of the baseline study for this result indicator is: 34% of the women producers linked to the project have an empowerment score equal to or higher than 13/18. A woman is considered to be directly linked to the project when at least one of the following conditions occurs:

- She is a registered partner of an organization linked to the project
- Participate in the project's FFS - Farmer Field Schools training program (who is a partner, or wife/spouse/other partner)
- Employees of the organizations linked to the project, who have participated in some process of training or transfer of skills.

The 18 questions can be found in Annex D, accompanied by the weight that each possible answer should have.

**Measurement frequency**

The progress of the indicator will be reported annually, using a random sample among the women linked to the project.

**Measuring mechanism**

The measurement of this indicator will be performed by the independent verification firm using three data sources:

- The database of women who were surveyed by the National Consulting Center in the process of establishing the baseline (14 municipalities).
- A list updated by SOCODEVI of the women directly linked to the project to complete the data of the previous point in order to have a more representative sampling of the total size of the project.
- A focus group of women directly linked to the project. The objective is to verify that the data provided by the women surveyed corresponds to the reality of the group of women and that what has been expressed by a group of women surveyed can be verified with a second source of information. The methodology to be used to carry out this focal group (number of people, duration, places, questions to be asked, etc.), will be defined by the winning firm in the verification process.

**Verification mechanism**

The surveys applied by SOCODEVI will be recorded in the ImpactCoop in the PERSON module.

**Calculation of the premium**

The premium associated with this indicator will be granted if 90% of the women directly linked to the project obtain a score of 13/18 or higher in the 18-question survey.

The score obtained in the consolidated survey will be the basis for generating the report and confirming the YES/NO scope of the premium indicator.

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**6.4 RESULT 4**

<b>RESULT 4:</b> Increased Hectares of Cocoa Plantation Managed under Climate-Resilient Agroforestry Systems
<b>YIELD INDICATOR #4:</b> Number of hectares of cocoa plantations managed with an agroforestry system that meets national standards
<b>BASE LINE DATA:</b> 0 ha
<b>END OF PROJECT TARGET:</b> 3,300 new or renovated/rehabilitated hectares that meet at least two defined national standards.
<b>METHOD OF VERIFICATION / SOURCE OF EVIDENCE:</b> Visits to farms benefiting from the project
<b>HOW TO GET THE INFORMATION:</b> Data stored in ImpactCoop

**Base line**

At the time of the baseline study, the project did not report having accompanied the establishment or renovation/rehabilitation of cocoa plantations meeting the established criteria.

**Criteria for determining whether hectares respond to a climate-resistant agroforestry system**

The criteria that have been defined with Canadian Cooperation for the desired project purposes are listed below. These criteria have been adjusted according to the most common ecosystems found in each working area of AGROEMPENDE CACAO.

<b>CRITERIA – INDICATOR 4</b>	<b>National Benchmarks<sup>1</sup></b>	<b>TARGET<sup>2</sup></b>	<b>PUTUMAYO<sup>2</sup></b>	<b>CESAR<sup>2</sup></b>	<b>MAGDALENA MEDIO<sup>2</sup></b>
<b>Minimum of trees cultivation of cacao/ha</b>	600 trees/ha	800 trees /ha	600 trees /ha	800 trees /ha	800 trees /ha
<b>Minimum of cloned trees/ha</b>	500 trees/ha	500 trees /ha	400 trees /ha	500 trees /ha	500 trees /ha
<b>Maximum hybrid trees/ha</b>	100 trees /ha	300 trees /ha	200 trees /ha	300 trees /ha	300 trees /ha
<b>Percentage of clones in new planting</b>	100%	100%	100%	100%	100%
<b>Maximum age of planting</b>	30 years	25 years	25 years	25 years	25 years
<b>Maximum height of cocoa trees</b>	4 meters	4 meters	4 meters	4 meters	4 meters
<b>Presence of short cycle crop in arrangement (applicable to cocoa plantations of less than 6 months)</b>	YES	YES	YES	YES	YES
<b>Presence of transient shade culture in arrangement</b>	YES	YES	YES	YES	YES

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CRITERIA – INDICATOR 4	National Benchmarks <sup>1</sup>	TARGET <sup>2</sup>	PUTUMAYO <sup>2</sup>	CESAR <sup>2</sup>	MAGDALENA MEDIO <sup>2</sup>
<b>(applicable to cocoa plantations under 4 years old)</b>					
<b>Minimum number of permanent shade trees (agroforestry system)</b>	150 trees /ha	80 trees /ha	60 trees/ha	100 trees /ha	80 trees /ha
<b>Presence of non-recommendable trees in association with cocoa?</b>	No	No	No	No	No

Depending on the type of hectare declared by the project (new hectares less than 6 months old, less than 4 years old or more than 4 years old; renewed/rehabilitated hectares less than 6 months old, less than 4 years old or more than 4 years old), a minimum number of criteria must be checked:

- In the case of new hectares established with the support of AGROEMPRENDE CACAO, the application of at least 6 criteria must be verified.
- In the case of hectares renewed or rehabilitated with the support of AGROEMPRENDE CACAO, the application of at least 2 criteria must be verified.

For all renewed or rehabilitated hectares, the project must document that the plot did not meet at least two criteria before being subject to project investment.

The table below shows the criteria that can be verified for each type of plantation.

Criteria	New ha established less than 6 months	New ha established less than 4 months	New ha established more than 6 months	Ha R/R less than 6 months	Ha R/R less than 4 months	Ha R/R more than 6 months
1 Density	YES	YES	YES	YES	It depends of the density found	It depends of the density found
2 Maximize the presence of cloned trees	YES	YES	YES	It depends of the MV present at the start	It depends of the MV present at the start	It depends of the MV present at the start
3 Minimize the presence of hybrid trees	N/A	N/A	N/A	It depends of the MV present at the start	It depends of the MV present at the start	It depends of the MV present at the start
4 % clones in new plantations	YES	YES	YES	N/A	N/A	N/A
5 Plantations age	YES	YES	YES	YES	YES	YES
6 Cocoa height	YES	YES	YES	YES	YES	YES

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<b>Criteria</b>		<b>New ha established less than 6 months</b>	<b>New ha established less than 4 months</b>	<b>New ha established more than 6 months</b>	<b>Ha R/R less than 6 months</b>	<b>Ha R/R less than 4 months</b>	<b>Ha R/R more than 6 months</b>
7	Presence of short cycle cultures	YES	N/A	N/A	YES	N/A	N/A
8	Presence of transient shade	YES	YES	N/A	YES	YES	N/A
9	Transient shade trees	YES	YES	YES	YES	It depends of the SAP found at the start	It depends of the SAP found at the start
10	No unwanted trees	YES	YES	YES	YES	It depends of the existence of a register with the ICA	It depends of the existence of a register with the ICA
<b>Sum of criteria to be found at the time of the review to qualify</b>		<b>Between 6 and 9</b>	<b>Between 6 and 8</b>	<b>Between 6 and 7</b>	<b>Between 5 and 9</b>	<b>Between 3 and 8</b>	<b>Between 2 and 7</b>

MV: plant material; SAF: agroforestry system; R/R: rehabilitated or renewed

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**Measurement frequency**

The measurement of the indicator by SOCODEVI will be done on a permanent basis, often as investments are made at the level of cocoa families accompanied by the project. The reporting of the information will be submitted annually to the Canadian Cooperation.

**Measuring mechanism**

For new hectares: A new hectare managed under a cocoa agroforestry system will be counted as a PLOT that, at the time the project began its monitoring, did not have an established cocoa agroforestry system and after the implementation of the investment plan, has one and meets a minimum of 6 criteria as described above.

For renewed/rehabilitated hectares: a PLOT that at the time of the initial visit does not meet at least two criteria listed in the Criteria-Indicator 4 table, and after the implementation of the investment plan, will be counted as renewed/rehabilitated.

**Verification mechanism**

The file (on physical and digital media) of the FAMILY composed of the following elements will be used as a verification tool:

- Analysis of the PLOT at the time of the initial visit of the AGROEMPENDE CACAO project, and after the implementation of the investment plan, detailing the relevant criteria and recorded in the ImpactCoop platform.
- FAMILY farm plan, available in a geographic information system.
- Investment plan for the PLOT, detailing the work to be done and its schedule.
- Photos of the PLOT, before the intervention, and after.
- Record of farm visits providing recommendations from the SOCODEVI team to the FAMILY. This record is given to the FAMILY at the time of each on-farm monitoring visit.

**6.5 RESULT 5**

<b>RESULT 5: Improved Business Environment</b>
<b>PERFORMANCE INDICATOR #5.1:</b> Volume of cocoa (kg) traded through organizations
<b>BASE LINE DATA:</b> 848,055 kg
<b>END-OF-PROJECT GOAL:</b> 25% increase in volume (kg) of cocoa marketed through the organizations.
<b>VERIFICATION METHOD / SOURCE OF EVIDENCE:</b> Verified by Performcoop platform/ Income Statement/ Client Invoice/ Client Certificate/ Certificate of Marketing issued by the organization/ Certificate of Non-Marketing issued by the organization/ Accounting software report
<b>HOW TO COLLECT INFORMATION:</b> Data stored in PerformCoop

**Base line**

At the time of the baseline study, it was determined that, as at December 2018, the total volume in kilograms of cocoa traded through the organizations linked to the project was 848,055 kg. The baseline table for this indicator is shared in Annex G.

**Measurement frequency**

The indicator will be measured annually, at the close of Colombia's fiscal period (December).



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### **Measuring mechanism**

The indicator will be measured by quantifying the kilograms of dry cocoa marketed through the organizations to their customers (or commercial partners) in the year, adding up the kilograms of dry cocoa marketed through the organizations linked to the project.

$\sum_1^n$  Kilograms sold where n = number of organizations linked at the time of reporting.

Monthly, sales behavior will be monitored, reviewing the organizations' accounting supports, recording the information on the PerformCoop platform.

### **Verification mechanism**

- Cocoa sales invoices from the organizations.
- Accounting record of cocoa purchases/sales of the association companies.
- Profit and loss statements of association companies.
- Recording of accounting information (prices/volumes) of the organizations' monthly consolidated transactions on the PerformCoop platform
- Consultation of the data in the PerformCoop
- Marketing or non-marketing certificate issued by the organization

### **Measurement of the indicator related to the 5.1 premium**

The proposed premium for this outcome will be granted if SOCODEVI succeeds in having the organizations market at least 10% of the cocoa at a price higher than 10% of the national reference price, at the time of sale.

The measurement of the result will be done through the weekly quantification of the marketing of dry cocoa beans from the organizations to their trading partners, indicating price, volume and qualities. The information will be recorded in the SharePoint of AGROEMPRENDE CACAO.

The mechanisms for verifying the scope of the premium shall include:

- SOCODEVI will keep a record of FEDECACAO weekly reference prices for each year of the project (Source: FEDECACAO).
- Report accounting software of the organizations
- Client certificate (business partners)
- Sales Invoice
- Recording of data on the PerformCoop platform and detailed tracking of the volumes sold by the organizations linked to the project.

### **Method of calculating the 5.1 premium**

Calculation of the premium

$$P_{prim} = Pref * (1+10\%)$$

Calculation of the percentage of cocoa marketed at a higher price (10% above the national reference price)

$$KP_{prim} = (KP_{prim}/K)*100$$

Where:

P<sub>prim</sub>= premium price (over price) = 10% above the weekly published national reference price

Pref= national reference price published weekly (SOURCE: FEDECACAO/Agronet).

K= Total cocoa marketed in kilograms (kg) by the organizations.

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KPprim= Cocoa marketed in kilograms (kg) with Pprim by organizations (sum of weekly volumes)

KPprim= Percentage of cocoa marketed with Pprim by organizations.

<b>RESULT 5: Improved Business Environment</b>
<b>PERFORMANCE INDICATOR #5.2.a:</b> Total sales (COP) of associations
<b>BASE LINE DATA:</b> 6,026 million COP.
<b>END OF PROJECT TARGET:</b> 20% increase in the value of sales of goods and services (COP)
<b>VERIFICATION METHOD / SOURCE OF EVIDENCE:</b> Verified by data transmitted in PerformCoop and coming from the Income Statements/ Client Invoice/Client Certificate/ Certificate of Marketing issued by the organization/ Certificate of Non-Marketing issued by the organization/ Accounting Software Report
<b>HOW TO COLLECT INFORMATION:</b> Data stored in PerformCoop

**Base line**

At the time of the baseline study, it was determined that, as of December 2018, the total sales of the organizations linked to the project were COP\$ 6,206 million. The baseline table for this indicator is shared in Annex G.

**Measurement frequency**

The indicator will be measured annually, at the close of Colombia's fiscal period (December).

**Measuring mechanism**

The indicator will be measured by quantifying the income in COP\$ reported by the organizations in their annual financial statements, making the sum of the income of the organizations linked to the project, from which donations are subtracted.

$$\text{Sales} = \text{Operating and non-operating income} - \text{Donations}$$

$$\sum_1^n \text{Sales where } n = \text{number of organizations linked at the time of reporting.}$$

Every month, the accounting team of the organizations and the SOCODEVI team will monitor the partnership business, based on the accounting documents available in each organization, and record the information on the PerformCoop platform.

**Verification mechanism**

Several verification tools will be available to check compliance with the indicator:

- Report accounting software of the organizations
- Organizational performance status
- Customer invoices.
- Marketing certificates issued by the organization
- Client certificate
- Registration of the data on the PerformCoop platform.

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<b>OUTPUT 5:</b> Improved Business Environment
<b>PERFORMANCE INDICATOR #5.2.b:</b> Net profitability of organizations
<b>BASELINE DATA:</b> 0%
<b>END OF PROJECT GOAL:</b> An average net return of 2% for organizations after operating expenses, financial expenses and taxes are paid
<b>VERIFICATION METHOD / SOURCE OF EVIDENCE:</b> Verified by data stored in PerformCoop and from the organizations' income statements
<b>HOW TO COLLECT INFORMATION:</b> Data stored in PerformCoop

**Base line**

In agreement with Canadian Cooperation, it was decided that the baseline for this indicator was 0%.

**Measurement frequency**

The indicator will be measured annually, at the close of Colombia's fiscal period (December).

**Measuring mechanism**

For clarification purposes, we confirm that the "sales" data of indicator 5.2.a is the same as the "income" data referred to in indicator 5.2.b.

Indicator 5.2.b will be measured by quantifying the total income and expenditure in COP\$ reported by the organizations in their income statements.

The measurement of the indicator will be based on the calculation of

$$M = \left[ \sum_1^c \left( \frac{Ix - Ex}{Ix} \right) * 100 \right] / C$$

Where:

- *M*= total net margin for all associations in year X (%)
- *I<sub>x</sub>* (see indicator 5.2.a: the figure "income" corresponds to the figure "sales" = operational and non-operational income - donations)
- *E<sub>x</sub>* Expenses (expenses and costs) of the organization
- *C*: Number of organizations

**Verification mechanism**

The monitoring of the associative businesses by the accounting team of the organizations and the SOCODEVI team, based on the annual statements of results available in each of them, will allow the generation and management of information for follow-up.

Several support tools will be available to verify compliance with the result:

- Report accounting software of the organizations
- Organizational performance status
- Registration of the data on the PerformCoop platform.

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**Measurement of the indicator related to the premium of 5.2 b**

The proposed premium for this result will be granted to SOCODEVI if the organizations are able to increase their equity by 10% in relation to the baseline.

The measurement of the result will be done through the annual calculation of the value of the assets, presented by the organizations, in their balance sheet<sup>1</sup>.

The information will be registered on the PerformCoop platform.

Mechanisms to verify the scope of this premium indicator will include:

- Balance sheets.
- Report accounting software of the organizations.
- PerformCoop Report.

**Calculation method for the 5.2 b premium**

$$\Delta AC = [(\sum_{1}^N \frac{AC_x}{AC_0} - 1) * 100] / N$$

$\Delta AC$ : percentage change in the capital (equity) of organizations

$AC_x$  : Total capital (equity) of organizations in a year X

$AC_0$  : Total capital (equity) of organizations as of December 2019

N: number of organizations reporting

<b>RESULT 5: Improved Business Environment</b>
<b>PERFORMANCE INDICATOR #5.2.c:</b> Rate of payment by members for the Associations revolving funds
<b>BASELINE DATA:</b> N.A.
<b>END OF PROJECT GOAL:</b> Payment (or reimbursement) rate must exceed 90%.
<b>METHOD OF VERIFICATION / SOURCE OF EVIDENCE:</b> Verified by data stored in PerformCoop and from the organizations' financial statements
<b>HOW TO COLLECT INFORMATION:</b> Data stored in PerformCoop

The AGROEMPRENDE CACAO project requires that families who want to access on-farm investments provided by the project (establishment, renovation/rehabilitation of hectares, post-harvest equipment) leverage (pay) a proportion of the investment value directly to their organization. This proportion may vary from one organization to another, but cannot be less than 10% of the value of the direct investment of AGROEMPRENDE CACAO in the farm.

In the Contribution Agreement with AMC, the indicator is "Rate of payment by members for the Associations revolving funds". The common understanding (AMC and SOCODEVI) of this indicator is that it refers to the rate of payment of the leverages committed by the families in counterpart of the investments that the project will finance in their farms.

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<sup>1</sup> Due to the COVID-19 pandemic, the National Directorate of Taxes and Customs (DIAN) has extended the deadline for the submission of tax reports, including annual financial statements, until the end of June 2020. As a result, the value of the assets has not been validated to date. In this context, the basic asset value will be validated by the verification firm during the first verification.

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The objective is that this payment exceeds by at least 90% the commitments signed by the families benefiting from the farm investments. For the purposes of calculating this indicator, this commitment will be considered as a loan granted to the families by your organization for the realization of the farm investments.

**Base line**

At the time of the baseline study, this payment/reimbursement rate was zero, as no investments had started to be made at farm level.

**Measurement frequency**

The indicator will be measured annually, at the end of the Colombian fiscal period (December).

**Measuring mechanism**

As investments with beneficiary families are confirmed, the number and total value of loans granted to beneficiary families will increase. In the organizations' accounting books, on the asset side, we will find the total value of outstanding loans that have not been repaid (LO-Loan Outstanding). On the liabilities side, a line called "Capitalization Fund" (RF-Revolving Fund) will be created. The written value will be the total of the loans granted to the partner families. This total will always increase as new loans are made.

The rate of payment for an organization shall be the difference between the total value of the "Capitalization Fund" (FR) minus the total capital of the loans not yet repaid (LO), divided by the total value of the loans granted (FR).

$RF_{xy} = (RF - LO)$  where x is the organization; y being the reporting year.

$RF_{xt}$  = total value of the organization's capitalization fund X

Organization's rate of payment X =  $RF_{xy} / RF_{xt}$

The indicator is measured according to the formulas described below:

Indicator 5.2c for organization X in year Y will be :  $RF_{xy} / RF_{xt}$

Indicator 5.2c for the project will be the average obtained from the sum of the RF of the organizations linked to the AGROEMPRENDE CACAO project, divided by the number of organizations reporting.

$$CF = \left( \sum_1^n \frac{RF_{xy}}{RF_{xt}} \right) / n * 100$$

Where:

CF: percentage of capitalization of the fund (% of redemption)

n: number of organizations

**Verification mechanism**

Several support tools will be available for checking the indicator:

- Accounting software for organizations
- Financial statements (balance sheet and income statement)
- Property investment plans
- Investment delivery minutes
- Registration of sale (in case the family pays with cocoa delivery)
- Cash receipts from organizations (if family pays cash)

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The data to make the calculations will be stored in the PerformCoop platform. Monthly data (LO and RF) will be recorded in the PerformCoop platform.



## Annex A: List of departments and municipalities covered

Departments	Municipalities
CESAR	The Jagua of Ibírico
	Becerril
	El Paso
	La Paz
	San Diego
	Augustine Codazzi
<i>Subtotal Regional Cesar</i>	<i>6 municipalities</i>
SANTANDER	Cimitarra
	Bolívar
	La Belleza
	Florian
ANTIOCHY	Puerto Nare
BOYACA	Puerto Boyacá
	Otanche
	Pauna
	San Pablo de Borbur
	Muzo
	Quípama
<i>Subtotal Middle Magdalena and Western Boyacá</i>	<i>11 municipalities</i>
GOAL	Villavicencio
	Acacias
	Castilla La Nueva
	Guamal
	Cubarral
	El Castillo
	Dorado
	Granada
	San Martín
	San Carlos de Guaroa
	Puerto Lleras
	Mesetas
	Fuente de Oro
	Vista Hermosa
Lejanías	
<i>Regional subtotal Target</i>	<i>15 municipalities</i>
PUTUMAYO	San Miguel
	Orito

Departments	Municipalities
	Valle del Guamuez
	Mocoa
	Villagarzón
	Puerto Asís
	Puerto Guzmán
	Puerto Caicedo
CAUCA	Piedemonte
<i>Subtotal Regional Putumayo</i>	<i>9 municipalities</i>
<b>TOTAL</b>	<b>41 municipalities</b>



**Annex B: List of organizations linked to AGROEMPRENDE CACAO as of  
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Departments	Municipalities	Associations	Number of Associates (M)	Number of Associates (F)	Total Number of Associates 2019
<b>ANTIOQUIA</b>	PUERTO NARE	ASOCANARE	20	4	24
<b>BOYACÁ</b>	MUZO	ASORCACAO	35	16	51
	OTANCHE	ASONASC	27	13	40
	PAUNA	APROCAMPA	80	26	106
	PUERTO BOYACA	ASORECAMM	75	39	114
	QUÍPAMA	COOPROQUIPAMA	65	27	92
	SAN PABLO DE BORBUR	ASOCACABO	64	16	80
<b>CESAR</b>	AGUSTÍN CODAZZI	AGROSOLIDARIA CODAZZI	167	43	210
	AGUSTÍN CODAZZI	ASOGRANJA DE MAKENKAL	50	15	65
	AGUSTÍN CODAZZI	ASOCOPE	82	37	119
	LA JAGUA DE IBIRICO	ASOAJAGUA	66	37	103
	LA PAZ	ASOPROAGRO	42	10	52
	LA PAZ	ASOAGROPERIJA	107	64	171
<b>META</b>	ACACIAS	ASPROCAO	44	22	66
	CASTILLA	ACAPROCASTILLA	23	12	35
	CUBARRAL	ASOCCUBA	65	21	86
	EL CASTILLO	COOPASOPADRA	98	46	144
	EL DORADO	ASOFRUD	75	52	127
	GRANADA	ASOPCARI	66	25	91
	GUAMAL	AGROGUAMAL	95	64	159
	LEJANIAS	ASMUCALE	0	34	34
	MESETAS	ASOCAMET	24	18	42
	SAN MARTIN	ASOGRANJA	60	28	88
VISTA HERMOSA	AGROCAVIS	139	56	195	
<b>PUTUMAYO</b>	MOCOA	APROCAPA	35	17	52
	ORITO	ASOPROCAO	58	22	80
	PUERTO ASÍS	AGROPAL	39	11	50
	SAN MIGUEL	ASIAG	30	14	44
	VALLE DEL GUAMUEZ	ASOPROCAFVG	36	24	60
	VALLE DEL GUAMUEZ	ASOPALORO 1	140	70	210
	VILLAGARZON	ASOPROCAVIP	56	21	77
<b>SANTANDER</b>	CIMITARRA	ASOPROLAN	102	56	158
<b>CAUCA</b>	PIAMONTE	ASOCAPIC	29	12	41
<b>Total general</b>		<b>32</b>	<b>2094</b>	<b>972</b>	<b>3066</b>

## Annex C: Women's empowerment index (indicator 3.2) - agreed score

In the table below you will find the value for each answer option. The sum of the values of each of the 18 answers gives the score  $x/18$ .

[AIF_A122] 3.2-1 In your family, who generally decides what will be produced on the farm?	Select only one answer_0_My spouse or other person in the household decides alone.a_0_My spouse or other person in the household consults me and then makes the decision_1_I decide in agreement with my spouse or other person in the household and our two views count the same way_1_I consult with my spouse or other person in the household and then decide_1_I decide alone. a__Not applicable
[AIF_A30a] 3.2-2 In your family, who generally decides that you will buy for production (seeds, tools, inputs)?	Select only one answer_0_My spouse or other person in the household decides alone.a_0_My spouse or other person in the household consults me and then makes the decision_1_I decide in agreement with my spouse or other person in the household and our two views count the same way_1_I consult with my spouse or other person in the household and then decide_1_I I decide alone
[AIF_A35] 3.2-3 In your family, who generally decides on the sale of your cocoa production (which part will be sold, to whom, at what price) ?*:	Select only one answer_0_My spouse or other person in the household decides alone. a_0_My spouse or other person in the household consults me and then makes the decision_1_I decide in agreement with my spouse or other person in the household and our two views count the same way_1_I consult with my spouse or other person in the household and then decide_1_I I decide alone
3.2-4 In the last year, how many times have you been advised by a professional technical resource (within the framework of technical training or a visit to your farm)?	Select only one answer_0_I have not spoken to the technical professional_1_only once_1_some times a year_1_each month
3.2-5 In the last year, have you yourself used the products or services offered by your co-operative-associative enterprise?	Select only one answer_0_No, I do not know the products and services offered_0_No, I did not use the services or buy any products_0_Yes, once I used the services or bought the products_1_Yes, I have regularly used the products and services offered
[AIF_D111d] 3.2-6 How easy is it for you to get them? In the last year, was it possible for you to get some? *	Select only one answer_0_Impossible_1_Gets them with difficulty_1_Gets them easily

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[AIF_C12] 3.2-7 In your family, who usually decides how your own and the family's income will be used?	Select only one answer_0_My spouse or other person in the household decides alone.a_0_My spouse or other person in the household consults me and then makes the decision_1_I decide in agreement with my spouse or other person in the household and our two views count the same way_1_I consult with my spouse or other person in the household and then decide_1_I decide alone
[AIF_C11] 3.2-8 In your family, who usually decides how much money will be used for cocoa production?	Select only one answer_0_My spouse or other person in the household decides alone.a_0_My spouse or other person in the household consults me and then makes the decision_1_I decide in agreement with my spouse or other person in the household and our two views count the same way_1_I consult with my spouse or other person in the household and then decide_1_I decide alone
3.2-9 If there is a health emergency (a child is sick, you have a health problem) and your spouse is traveling, you use the money you need?*	Select only one answer_0_No, I don't use the money because my spouse is absent_1_Yes, I use the money, whether or not I check
[AIF_C16] 3.2-10 When your family has money, you can easily use it for your personal needs (clothes, hygiene products)?*	Select only one answer_0_No, I don't use the money because my spouse is absent_1_Yes, I use the money, whether or not I check
3.2-11 Are you an affiliate/member of a community and/or productive organization?*_1_: Yes _0_: No	
[AIF_D111a] 3.2-12 Do you participate in the meetings and assemblies of your organization? _1_: Yes _0_: No	
[AIF_D111b] 3.2-13 Do you have a position in the decision-making bodies of your organization (elected or managerial/executive)?*	Select only one answer_0_No and I'm not interested. a and/or I don't feel safe.a_0_No but I would like to have a position someday_1_No, not at the moment, but I have already filled a position_1_Yes, but I don't feel safe.a_1_Yes and I feel safe.
3.2-14 In a meeting or training workshop, you usually feel confident to give your opinion to a group of women and men:	Select only one answer No, not at all
3.2-15 If you hold a 'director's position' (elected or managerial), how will things be in the house?*	Select only one response_0_I cannot take a job because my spouse or family would not accept that I take a job or attend meetings_0_I would take my job, but I would have problems with my spouse or family_1_I would take my job, without that bothering my spouse or family, but I would not get any help from them to support me with my other tasks (such as housework, with the children, etc.))_1_I would take my place with the support of my spouse or the rest of my family, who would take care of the domestic work while I am on duty
[AIF_E11a] 3.2-16 In the FAMILY, in general, who is mainly responsible for the work of the house (cooking, laundry, housework, care and needs of the children/sick/elderly)?*	Select only one answer_0_I am the only person who takes care of everything at home_0_I take care of it and sometimes my spouse helps me with certain thingsI take care of it most of the time and my spouse takes care of certain activities/tasks_1_My spouse/other family member and I take care of them equally_1_My spouse/other family member takes care of it and sometimes I help him/her with certain things

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<p>[AIF_E21] 3.2-17 On a typical day, do you feel you have enough time to rest and/or do something on your own? like a hobby or a hobby?</p>	<p>Select only one answer_0_No, not at all_1_I feel I have some_1_I feel I have enough</p>
<p>[AIF_E23] 3.2-18 On a typical day, when you consider all of your responsibilities, activities, and tasks (on the farm, at home, and elsewhere if applicable), do you feel that you have as much time for yourself as your spouse has for himself or herself?</p>	<p>Select only one answer_0_No, not at all_0_I feel that my spouse has more time than me_1_I feel that my spouse and I have the same time for ourselves_1_I feel that my spouse has less time than me          Another one: _____</p>

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**Annex D: Example of crop forecast calculation,  
heterogeneous plot (grouping of varieties or clones)  
of area > to 1 ha**

P102_AFFILIATE NAME.O	TREJOS GRIJALBA JOSE RUBEN
P207_OTRA	
P104	2

P309_1 Total clones	1600
P309_2 Total Hybrids	0
P309_3 Total Trees	1600

Tree	CLON	FSan	BAD units	IM(FSan)	AMn
1	ICS95	1	0	19	0,05263
2	CCN 51	4	1	14	0,28571
3	CCN 51	4	2	14	0,28571
4	CCN 51	4	3	14	0,28571
5	ICS95	6	1	19	0,31579
6	CCN 51	3	0	14	0,21429
7	ICS95	3	1	19	0,15789
8	CCN 51	3	0	14	0,21429
9	CCN 51	1	0	14	0,07143
10	CCN 51	2	0	14	0,14286
11	CCN 51	12	3	14	0,85714
12	CCN 51	0	0	14	-
13	CCN 51	2	1	14	0,14286
14	ICS95	4	1	19	0,21053
15	CCN 51	2	1	14	0,14286
16	CCN 51	1	0	14	0,07143
17	ICS95	2	1	19	0,10526
18	CCN 51	0	0	14	-
19	ICS95	5	1	19	0,26316
20	CCN 51	1	1	14	0,07143
21	ICS95	8	1	19	0,42105
22	ICS95	4	4	19	0,21053
23	CCN 51	14	7	14	1,00000
24	ICS95	6	0	19	0,31579
25	Hybrid	1	1	25	0,04000
26	ICS95	20	1	19	1,05263
27	ICS95	0	0	19	-
28	ICS95	7	2	19	0,36842
29	ICS95	9	4	19	0,47368
30	ICS95	4	2	19	0,21053
31	TSH 565	4	1	19	0,21053
32	CCN 51	3	0	14	0,21429
33	ICS95	17	0	19	0,89474
34	ICS95	10	0	19	0,52632
35	ICS95	10	0	19	0,52632
36	ICS95	5	2	19	0,26316
37	ICS95	2	0	19	0,10526
38	ICS95	6	1	19	0,31579
39	CCN 51	4	1	14	0,28571

**COCOA AGRIBUSINESS**  
*Methodological guide for the*  
**Measurement and Verification of Payment Indicators**  
**Annexes**

Tree	CLON	FSan	BAD units	IM(FSan)	AMn
40	CCN 51	0	1	14	-
41	CCN 51	0	0	14	-
42	ICS95	11	0	19	0,57895
43	CCN 51	7	1	14	0,50000
44	CCN 51	1	1	14	0,07143
45	ICS95	12	0	19	0,63158
46	CCN 51	1	4	14	0,07143
47	ICS95	22	3	19	1,15789
48	ICS95	10	0	19	0,52632
49	ICS95	5	2	19	0,26316
50	ICS95	15	1	19	0,78947
51	CCN 51	2	1	14	0,14286
52	CCN 51	0	0	14	-
53	CCN 51	3	2	14	0,21429
54	CCN 51	4	3	14	0,28571
55	CCN 51	1	6	14	0,07143
56	CCN 51	4	1	14	0,28571
57	CCN 51	1	2	14	0,07143
58	ICS95	1	2	19	0,05263
59	CCN 51	0	2	14	-
60	CCN 51	2	1	14	0,14286

$$\sum \text{PPCA (60)} = (\text{AM1} + \dots + \text{AM60})$$

2. **Sum of Production Values per Tree:**

$\sum \text{PPCA (60)}$	17,18286
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$$\text{PPCA calculation (60)} = \sum \text{PPCA (60)} / 60$$

3. <b>Calculation of the average production tree for the sample</b>	
Total number of trees in the cocoa plot	<b>P309_1</b>
4. <b>Calculation of cocoa production in the total number of trees</b>	
Total area under cocoa cultivation	<b>P104</b>
5. <b>Calculation of cocoa production per hectare</b>	TKgPC / ATC

PPCA (60)	0,28638
NTACC	1600
TKgPC	458,20952
ATC	2
PCHKg	229,10476