

EVALUATING HOW ROOT CAPITAL'S CLIENT BUSINESSES IMPACT SMALLHOLDER LIVELIHOODS: COFFEE COOPERATIVES IN CHIAPAS, MEXICO

Impact Study Report





# **Acknowledgements**

This study was possible thanks to the willingness of our clients Kulaktik and Yaxcoffee to participate in this evaluation. The organizations' leadership and their producers literally opened their doors and welcomed our research team into their homes and farms, sharing their time and insights, expecting nothing in return.

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# **Executive Summary**

Root Capital invests in the growth of agricultural cooperatives so they can transform rural communities, as these small and growing businesses generate reliable income for smallholder farmers and provide critical access to farm inputs and training. Through these services, agricultural-based cooperatives may offer a critical solution for generating higher income for small-holder farmers, closing agricultural gender gaps, and empowering women across value chains.

This study confirms that affiliation with Root Capital services, meaning being a member of a cooperative that is client of Root Capital or selling coffee to a business that is client of Root Capital, increased the average income of coffee-farming households in Chiapas, Mexico by \$6,188 MXN (\$335 USD) per harvest.<sup>1</sup> This represents a nearly 25% increase when compared to households not affiliated with our services. On average, farmers affiliated with Root Capital produce 89.2 kilograms more and are paid \$2.32 MXN (\$0.13 USD) more than similar farmers not affiliated to our clients. They are also 21 percentage points more likely to hold organic or Fairtrade certifications.

This report presents the findings of a quantitative analysis of the Root Capital programs supported by the Walmart Foundation. The study sought to evaluate the impact on various dimensions related to production, income, and gender inclusivity for smallholder coffee farmers who are affiliated with a Root Capital client cooperative. Data collection was informed by tools created by the International Food Policy Research Institute's (IFPRI) and its ANEW Portfolio, which is a body of research into women's empowerment and inclusion in the smallholder agriculture context. A subsequent report will include additional, disaggregated data on women's empowerment and indicators related to perceptions of gender inclusions in the households.

Data collection took place in the state of Chiapas, Mexico in March and April 2023. A total of 1,434 coffeefarming households were surveyed in the municipalities of Chilón, Tenejapa, Tila, Tumbalá and Yajalón, where two of Root Capital's clients, Yaxcoffee and Kulaktik, operate. The sample consisted of randomly selected farms affiliated to cooperatives receiving Root Capital services, as well as a similar group of unaffiliated coffee-farming households in nearby communities of the same municipalities.

# **Resumen Ejecutivo**

Root Capital invierte en el crecimiento de las cooperativas agrícolas para que puedan transformar las comunidades rurales. Estas pequeñas y medianas empresas generan ingresos estables para los pequeños agricultores y brindan acceso crítico a insumos agrícolas y capacitación. A través de estos servicios, las cooperativas agrícolas pueden ofrecer una solución fundamental para aumentar los ingresos

<sup>&</sup>lt;sup>1</sup> We use the exchange rate of \$1 USD=\$18.4902 MXN, which corresponds to the exchange rate of March 23, 2023, when the data collection started. Source: Mexican Central Bank (<u>https://www.banxico.org.mx/tipcamb/main.do?page=tip&idioma=en</u>).



de pequeños agricultores, cerrar las brechas agrícolas de género y empoderar a las mujeres en las cadenas de valor de productos como el café.

Este estudio confirma que la afiliación a los servicios de Root Capital, es decir ser parte de una cooperativa que es cliente de Root Capital o vender su café a un cliente de Root Capital, incrementa el ingreso promedio de los hogares cafetaleros en Chiapas, México en \$6,188 MXN (\$335 USD) por cosecha.<sup>2</sup> Esto representa un aumento de casi 25 % cuando se compara con los hogares que no están afiliados a nuestros servicios. En promedio, los agricultores afiliados a Root Capital producen 89.2 kilogramos más y ganan \$2.32 MXN (\$0.13 USD) más que agricultores similares no afiliados a nuestros clientes. También tienen 21 puntos porcentuales más de probabilidad de tener certificaciones orgánicas o de Comercio Justo.

Este informe presenta los hallazgos de un análisis cuantitativo de los programas Root Capital con el respaldo de Walmart Foundation. El estudio buscó evaluar el impacto que tiene estar afiliado a Root Capital en varias dimensiones relacionadas con la producción, los ingresos y la inclusión de género para pequeños caficultores. Los instrumentos utilizados para la recolección de datos se complementaron con herramientas creadas por el International Food Policy Research Institute's (IFPRI) y su portafolio ANEW, que es un proyecto que compila diversos estudios sobre el empoderamiento de las mujeres y su inclusión en la agricultura en pequeña escala. Un informe subsecuente final incluirá no solo estos hallazgos, sino también otros datos desagregados sobre el empoderamiento de las mujeres relacionados con las percepciones de la inclusión de género en los hogares.

La recolección de datos se llevó a cabo en el estado de Chiapas, México, en marzo y abril de 2023. Se encuestaron un total de 1,434 hogares cafetaleros en los municipios de Chilón, Tenejapa, Tila, Tumbalá y Yajalón, donde dos clientes de Root Capital operan: Yaxcoffee y Kulaktik. La muestra estaba compuesta por fincas seleccionadas al azar afiliadas a cooperativas que reciben servicios de Root Capital y fincas u hogares cafetaleros seleccionados al azar con características similares que no estaban afiliados a nuestros clientes en las mismas localidades y municipios.

# Introduction

## **ROOT CAPITAL**

For nearly 25 years, Root Capital has invested in the growth of agricultural businesses so they can impact individual farmers and transform rural communities. These businesses generate reliable income for smallholder farmers and provide critical access to farm inputs and training. Through these services, agricultural-based cooperatives or private enterprises may offer a critical solution for generating higher

<sup>&</sup>lt;sup>2</sup> Utilizamos la tasa de cambio oficial del Banco de México de \$1 USD=\$18.4902 MXN, que corresponde a la tasa de cambio vigente en marzo 23, 2023 que es la fecha de inicio de la recolección de datos. Fuente: Banco de México (https://www.banxico.org.mx/tipcamb/main.do?page=tip&idioma=en).

income for small-holder farmers and closing agricultural gender gaps and empowering women across value chains.

Root Capital's "credit plus capacity" model grants our clients the opportunity to access financing and tailored capacity building services to help their businesses grow, giving them the ability to transform rural communities in the world's most vulnerable places. Our lending services work with our clients to evaluate the financing options and terms that will help their businesses succeed. This involves customizing loan amounts and structures, securing competitive rates, and taking advantage of industry expertise to assure the credit provided facilitates the availability of needed working capital. Our capacity-building advisory services provide our clients with financial management and agronomic training that leads to improved enterprise operation, growth, and further access to finance at the business levels and improved quality and yields at the farm level, which in turn leads to improved incomes for smallholder producers. Furthermore, among other, we offer a set of advisory services focused on gender equality and inclusion, which aim to improve the inclusion of women in governance and decision-making bodies of small agricultural businesses.

## CHIAPAS AND THE COFFEE INDUSTRY

Since the introduction of coffee in the late 18th century, Mexico has become the world's eleventh largest coffee producer<sup>3</sup> and a major source of coffee imports to the United States. Chiapas is the most important coffee-producing state in Mexico<sup>4</sup> and a globally significant biodiversity hotspot.<sup>5</sup> The state's tropical rainforests provide ideal growing conditions for coffee. As a result, coffee farms managed under traditional agroforestry systems — which combine agriculture and forestry to mimic natural forest systems — continue to form an integral part of the landscape. Coffee production accounts for over 250,000 hectares in Chiapas, second only to maize in terms of agricultural land use, and the state contributes between 30 and 40 percent to Mexico's total coffee production each year.<sup>6</sup>

The coffee industry engages nearly a million people in Chiapas and is the primary source of income for around a quarter of the state's labor force<sup>7</sup>. Most coffee producers in Chiapas are smallholder farmers of indigenous background, managing less than five hectares (just over 12 acres) of land and employing organic, agroforestry production methods. Most of these farmers produce specialty-grade Arabica beans for international markets.

According to the National Institute of Geography and Statistics (INEGI), Chiapas is the state with the lowest income per household in Mexico, with an average monthly total income per household in 2020 of \$1,144.50 USD, compared to the \$1,806.63 USD national average. Historically, it is difficult to secure access to capital and financing for agriculture in this region. Furthermore, issues in recent years with leaf rust and

- <sup>6</sup> Instituto de Café de Chiapas, <u>Datos Importantes Del Café</u>.
- <sup>7</sup> Instituto de Café de Chiapas, Datos Importantes Del Café.

<sup>&</sup>lt;sup>3</sup> Food and Agriculture Organization of the United Nations, <u>FAOSTAT "Countries by commodity"</u>, 2021.

<sup>&</sup>lt;sup>4</sup> Instituto de Café de Chiapas, Datos Importantes Del Café.

<sup>&</sup>lt;sup>5</sup> Conservation International defines biodiversity hotspots as "the richest and most threatened reservoirs of plant and animal life on Earth." The state of Chiapas lies within the Mesoamerican hotspot. Conservation International, <u>"The Biodiversity Hotspots"</u>.



other environmental challenges have devastated coffee trees, leaving farmers with reduced yields and higher expenses to remediate their crops.

The shift to organic farming in the past few decades emerged as a critical response to these challenges. According to Folch and Planas (2019), producers in Chiapas found organic practices to be an effective alternative to the conventional coffee crops that had become difficult to maintain due to unpredictable prices and unsustainable farming methods. The climate in Chiapas was also conducive to ecological farming techniques suited to organic farming, namely polyculture methods where different types of crops protect each other and create richer growing environments. Some scholars assess that organic coffee growing was able to expand rapidly in Chiapas because its productive methods were in close harmony with the traditional knowledge of the small indigenous producers. By the end of the 20th century, Mexico became the world's main producer and exporter of organic coffee, as well as the largest single producer of organic coffee in Mesoamerica.<sup>8</sup>

## **OUR CLIENTS**

## Kulaktik

Founded in 1992, Kulaktik has been working with Root Capital's lending and advisory services since 2019. The cooperative is made up of nearly 200 farmers of the indigenous Maya community residing in the highlands of Chiapas, which is classified as a highly marginalized population. Most are of the Mayan Tzeltal background and speak the native Tzeltal language. The Tzeltal word "Kulaktik" means "vine." Each member of the cooperative grows, harvests, and processes their own coffee to be delivered to the cooperative for grading and export. Kulaktik represents a critical resource for small producers to receive fair prices for their coffee and greater access to markets.

With access to credit and training from Root Capital, Kulaktik can export their coffee directly to international markets, securing higher prices from roasters. It is also a woman-led organization, with the President of the Association being one of the few women in the region chairing a cooperative board for this type of association.

### Yax Coffee

Yax Coffee, founded in 2011, is made up of over 1500 producers of the Ch'ol and Tzeltal indigenous groups. Located in the Sierra Norte de Chiapas, the cooperative works with 72 communities in 6 municipalities.

"Yax" means *green* in the native languages, and the organization prides itself on using shade tree practices without any chemical substances that promote the biodiversity of the region. The cooperative also strives to improve living conditions of small producers and generate viable jobs for the younger generation as an alternative to migration away from their communities to cities.

<sup>&</sup>lt;sup>8</sup> Albert Folch and Jordi Planas, "Cooperation, Fairtrade, and the Development of Organic Coffee Growing in Chiapas (1980–2015)," MDPI, January 11, 2019, https://www.mdpi.com/2071-1050/11/2/357.



Root Capital has been providing financing and advisory services to Yax Coffee since 2014. Over the years, the cooperative has not only grown as a business, but has also become a gender-inclusive organization in terms of both employment and purchase of goods from women.

# **Study Objective and Methodology**

## **RESEARCH QUESTIONS**

With the support of the Walmart Foundation, Root Capital conducted this evaluation to explore how affiliation with any of its two clients in Chiapas, Mexico influences the production and income of smallholder coffee farmers and indicators related to gender inclusion and gender inclusion perceptions at the household level.

Our objective was to test Root Capital's theory of change that states supporting small agricultural businesses will have an impact on coffee farmers' income. Therefore, our key research question was:

## To what extent do Root Capital services—access to finance and advisory services impact the income of farmers affiliated with cooperatives receiving these services?

The following analysis presents preliminary findings of impact on various dimensions related to production, income, and gender inclusivity for smallholder coffee farmers who are affiliated with a Root Capital client cooperative.

## DATA COLLECTION

Though the study was meant to be carried out in 2021, the data collection was delayed due to several challenges related to the COVID-19 global pandemic and rising security issues in the region of Chiapas.

The data collection took place in March and April 2023, and the instrument implemented was a modified version of IFPRI's Women's Empowerment in Agriculture Index for market inclusion (pro-WEAI+MI) tool (to be detailed further in a subsequent report). The fieldwork was conducted by a local data-collection agency, under the supervision of the research team.

Individual farmers were interviewed in five municipalities of Chiapas: Chilón, Tenejapa, Tila, Tumbalá and Yajalón. **Figure 1** presents the location of households that participated in the study.

A total of 1,434 farmer households (2,013 total observations including households where the partner of the member of the cooperative was also surveyed) participated in the study. Of these, 636 were affiliated to cooperatives receiving the services of Root Capital's clients (Kulaktik and Yax Coffee), and 798 had no

association to Root Capital or any of its clients in the region.<sup>9</sup> Table 1 breaks down our sample by treatment condition and demographic groups.

Summary statistics on sociodemographic characteristics of the sample are shown in Table 2. On average, farmers in the treatment group are four years older, have fewer children per household, are less educated, cultivate more land, and have a higher prevalence of indigenous languages than the control group. There were no significant differences in gender composition between the treatment and control groups.

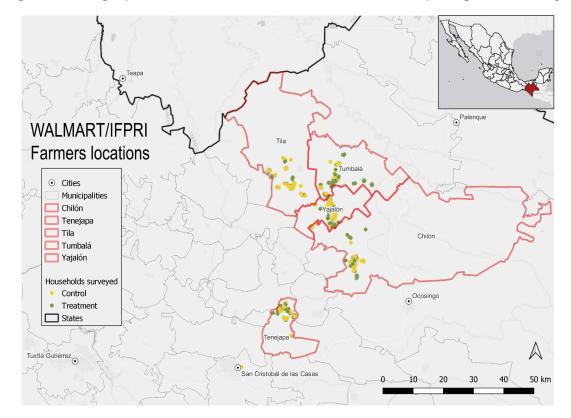


Figure 1. Geographical Location of the Households Participating in the Study

# Table 1. Number of Observations by Treatment Condition and Demographic Group

|           | Full sample | Women | Youth | Youth women |
|-----------|-------------|-------|-------|-------------|
| Treatment | 1,006       | 193   | 129   | 49          |
| Control   | 1,007       | 200   | 202   | 80          |
| Total     | 2,013       | 390   | 331   | 129         |

<sup>&</sup>lt;sup>9</sup> Root Capital has had more than 70 clients in the state of Chiapas over the last 15 years. To assure that we were not including households who are associated to former or current clients not included in the study, the data collection firm validated no farmers belonged to the list of 70+ current or former clients.

| Variable                                   | Contro | Control Group |     | Treatment Group |          | Pr( T  >  t ) |
|--|--------|---------------|-----|-----------------|----------|---------------|
| Valiable                                   | n      | mean          | n   | mean            | in means | F1( 1  ~  4 ) |
| Gender<br>(% of women)                     | 638    | 31.82         | 582 | 32.99           | -1.17    | 0.6617        |
| Age  | 638    | 43.37         | 585 | 47.12           | -3.75*** | 0.0000        |
| Secondary or Higher<br>Education (%)       | 633    | 37.44         | 577 | 27.04           | 10.40*** | 0.0001        |
| Youth - up to 35 (%)                       | 638    | 32.29         | 585 | 22.05           | 10.24*** | 0.0001        |
| Household Size<br>(number of members)      | 798    | 4.26          | 637 | 4.20            | 0.06     | 0.6062        |
| Children up to 5<br>(average number)       | 798    | 0.28          | 637 | 0.22            | 0.06**   | 0.0354        |
| Children between 6 and 12 (average number) | 798    | 0.66          | 637 | 0.57            | 0.09*    | 0.0626        |

# Table 2. Descriptive statistics (subset of sociodemographic variables)

Note: Asterisks denote difference in means statistically significant at the confidence interval of 99% (\*\*\*), 95% (\*\*) and 90% (\*), respectively.

# Analysis

## VALIDATING CONTROL AND TREATMENT GROUPS

Given that the evaluation consisted of a one-time data collection, a *Propensity Score Matching* approach was used to construct the best possible comparison group based on observed characteristics to evaluating the impact of Root Capital's services for farmers in Chiapas. In summary, we aimed to find a pool of non-treated units (farmers not affiliated with Root Capital) whose characteristics were very similar to those that would have been exhibited by the treated units (Root Capital affiliated farmers) *before* receiving any services. Having two groups with the same characteristics allowed us to isolate the impact of Root Capital.

To do this, we identified a set of characteristics that could not have changed given an affiliation with Root Capital. Then we calculated the likelihood that the two groups would look almost exactly alike, with the only difference being whether they were producers of a cooperative that received services from Root Capital. These characteristics included<sup>10</sup>:

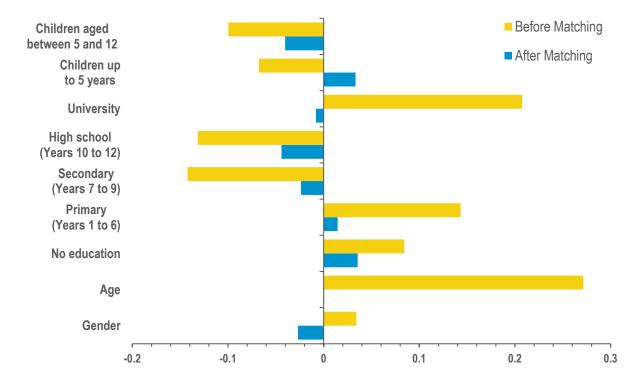
• Sociodemographic features of the farmer (gender, age, education and marital status)

<sup>&</sup>lt;sup>10</sup> Though hectares of farmland were originally included among these characteristics, and also a criteria to select farmers in the control group, it was found that this variable showed a significant difference between treatment and control groups. We therefore concluded that there may be a relationship between farmers associated with Root Capital clients and the size of land. For example, this could be due to the higher average incomes of Root Capital-affiliated farmers allowing them to purchase larger plots of farming land.



- Household size (number of household members living in the same house).
- Number of children (under five years and those aged between five and twelve years).
- The municipality where the household is located.
- Preferred language for interview (Spanish or Native language).
- Attitudes towards self-efficacy and entrepreneurship.

# Figure 2. Standardized Differences Between Control and Treatment Groups (before and after the matching process)



Once a control group is identified with very similar characteristics to those observed in the treatment group, we can say that we have matched the treated observations. The only difference between these groups is that some of them are affiliated to cooperatives receiving Root Capital services and some of them are not. Figure 2 illustrates how the differences between control and treatment group are reduced once Propensity Score Matching is implemented, where a difference closer to zero implies that the means of the selected variables are closer to being the same.

## **QUANTIFYING IMPACT**

Once the treatment and control groups were defined and verified, we compared a series of outcomes to identify whether Root Capital's services had an impact on farmers' livelihoods, production, and dynamics of



gender inclusivity.<sup>11</sup> The difference in average outcomes corresponds to the level of impact that can be attributed to Root Capital for each of the following variables: <sup>12</sup>

- Incremental income
- Production, Sales and Average Price
- Certification
- Agricultural Practices
- Access Financial Services
- Collective Agency
- Labor Environment
- Gender
  - Use of Time
  - Income Decisions
  - Violence Against Women

# **Key Findings**

- Farmers affiliated with cooperatives receiving services from Root Capital receive 24.51% higher annual revenue and \$2.32 MXN (\$0.13 USD) per kilogram of coffee sold compared to agricultural households selling coffee that are not affiliated with Root Capital. The estimated causal effect of Root Capital services on farmer coffee revenues is an increase of \$6,188 MXN per harvest (\$334.66 USD). Women and youth within the treatment group also displayed increased revenue, particularly young people who showed 32.4% higher revenue (see figures 3 and 4). The monetary value of the national rural minimum welfare line in March 2023 was \$1,659.09 MXN per month (\$89.73 USD). This "extreme poverty line" accounts for the monetary value of the food products needed in a month for the basic caloric intake for a person. This means that the additional income generated as result of the services provided by Root Capital is equivalent to 3.7 times the minimum welfare line in rural Mexico.
- Farmers affiliated with Root Capital produce an average of 89.2 kilograms per harvest more than farmers in the same municipalities who are not affiliated with Root Capital (Figure 5.b). Women and youth showed even higher production levels than the control group average. Higher revenues for Root Capital coffee-farming households are a consequence of access to higher prices and greater levels of sales (see Figure 5.c). These results hold even after controlling for farm sizes of the households.

<sup>&</sup>lt;sup>11</sup> We checked the robustness of our estimations running alternative versions of the Propensity Score Matching model, including nearest neighbor matching, Kerel-based matching, and inverse-probability weighted regression adjustment. In all cases the statistical significance (and sign) of our key results remains unchanged. We also verified the overlap assumption for each of our models (graphs not reported).
<sup>12</sup> Annex I at the end of the document presents all the estimates for each of the outcome variables by sociodemographic groups. Standard errors, number of observations and overlap graphs are not reported, but are available upon request.

Although women members are producing and selling higher quantities of coffee, they
receive lower than average prices and total revenue than other farmers associated with
Root Capital clients. This suggests that women are being paid less per kilogram of coffee and
that a gender pay gap discrimination for coffee price persists (see Figure 5.a).

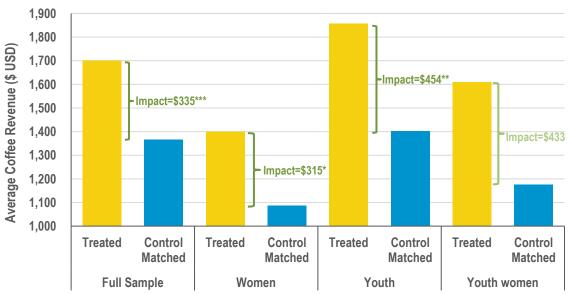
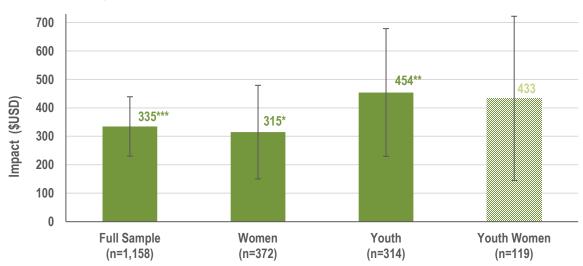


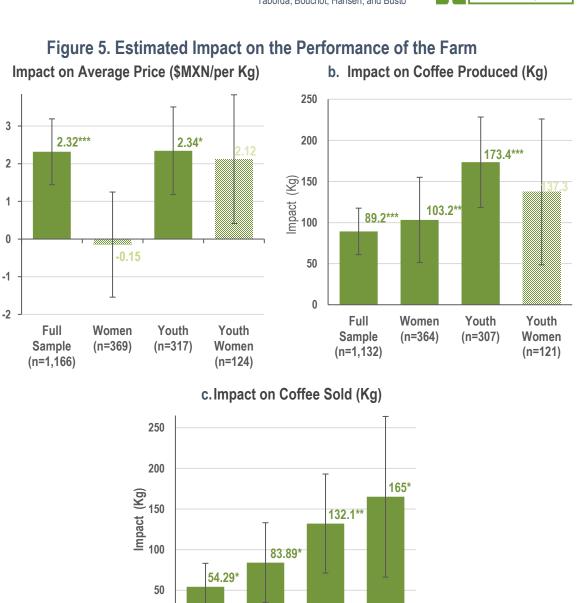
Figure 3. Average Coffee Revenue and Estimated Impact (\$USD)

Note: Dark green color for the impact estimation indicates statistically significant results. Asterisks denote statistical significance at the confidence interval of 99% (\*\*\*), 95% (\*\*) and 90% (\*), respectively.



## Figure 4. Estimated Impact on Coffee Revenue (\$USD)

Note: Dark green color indicates statistically significant results, meaning statistically significant differences compared to the control group. Asterisks denote statistical significance at the confidence interval of 99% (\*\*\*), 95% (\*\*) and 90% (\*), respectively.



Note: Dark green color indicates statistically significant results. Asterisks denote statistical significance at the confidence interval of 99% (\*\*\*), 95% (\*\*) and 90% (\*), respectively.

Youth

(n=305)

Youth

Women

(n=117)

Women

(n=364)

 56.2% of Root Capital affiliated farmers grow certified coffee, compared to 32.7% nonaffiliated farmers. For the estimation of the causal effect, affiliated farmers are 27.2 percentage points more likely to have an organic certification and 21.8 percentage points more likely to have a Fairtrade certification than farmers in the control group. Women exhibit a similar likelihood of holding certifications, while for youth we do not observe strong differences on the higher probability of holding organic or Fairtrade certifications compared to non-affiliated farmers.

0

Full

Sample

(n=1,133)

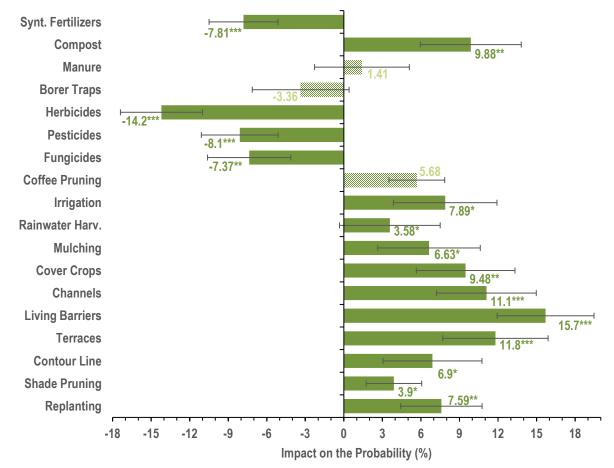
a.

Impact (\$MXN/Kg)

- The findings do not indicate any effect of being affiliated with a Root Capital client on farmer's access to financial services. This includes access to credit, access to a bank account and formal mechanisms for savings management. This finding is not surprising given that Root Capital works to provide access to finance for small agricultural businesses and does not have a program to directly promote financial inclusion for coffee farmers in Chiapas.
- Farmers who are members of cooperatives receiving Root Capital services tend to strongly feel that they have more agency to give opinions on setting goals and how to achieve them in collective cooperative-related spaces. They also feel motivated to cooperate with others and perceive mutual help among members to recover from obstacles. Women members have even stronger perceptions that they can give their opinion on setting goals and how to achieve them, as well as mutual assistance among members. Young people have less strong feelings in these areas, but still perceive that they can give opinions on how to achieve goals and value mutual support within the cooperative.
- The likelihood of farmers associated with Root Capital experiencing instances of sexual hostility and gender-based violence does not differ significantly from other farmers in similar circumstances. Though the full group of cooperative members associated with Root Capital showed a modest increase in tendency to report never experiencing sexual comments or jokes in the workplace or physical contact in a sexual way without consent, this does not hold true for just the women members. This may indicate that despite other advances in gender equality, there are still behaviors and attitudes that persist regarding sexual hostility and gender-based violence.
- Farmers affiliated with Root Capital are more likely to adopt good agricultural practices. They exhibit higher instances of practicing replanting, shade pruning, mulching, composting, and rainwater harvesting and are less likely to be using pesticides, fertilizers, and herbicides (Figure 6). These practices may be linked to certification requirements.
  - The agricultural practices Root Capital associated farmers are engaged in reflect general practices associated with higher crop and farm resilience to impacts of climate change. In particular, the use of compost, cover crops, irrigation, and rainwater harvesting are key practices that provide assurances for climate-related vulnerabilities<sup>13</sup>.
  - The lower likelihood of use of pesticides, fertilizers, and herbicides by farmers associated with Root Capital does not seem to be hindering production levels. Though typically avoiding the use of these practices generates lower yields, Root Capital farms are still exhibiting, on average, higher production levels than the control group.

<sup>&</sup>lt;sup>13</sup> Bunn, C., Lundy, M., Läderach, P., Girvetz, E., Castro, F. (2018). Climate Smart coffee in Honduras. International Center for Tropical Agriculture (CIAT), United States Agency for International Development (USAID). Cali. CO. 27 p.





# Figure 6. Impact on the probability of implementing a specific agricultural practice

Note: Dark green color indicates statistically significant results. Asterisks denote statistical significance at the confidence interval of 99% (\*\*\*), 95% (\*\*) and 90% (\*), respectively.

# Conclusions

Based on the present analysis, we can conclude that Root Capital's services for agricultural cooperatives have an impact on incremental income at the farmer level. On average, farmers that are members of Root Capital affiliated cooperatives produce more coffee per harvest, sell their product for higher prices, and gain higher revenues per harvest than farmers from the same region that are comparable and not affiliated with Root Capital in any form.

The robust measures in the analysis ensured that the observable relationships could be attributed solely to Root Capital's interventions. However, there are a few limitations for the conclusions that may be drawn from this study.

First, the one-time data-collection for this study meant that we did not have access to data before the provision of Root Capital services. This implies that some of the general characteristics of the farmers and their performance could have been affected as a result of Root Capital interventions. We mitigated this



limitation by using the propensity score method to balance the treatment and control groups using exclusively sociodemographic variables not affected by Root Capital's interventions.

Furthermore, we acknowledge that Root Capital is selective in its clients with the aim of identifying businesses that create a positive social and environmental impact for the communities in which they operate. Therefore, the higher likelihood of farmers associated with Root Capital clients having organic or Fairtrade certifications cannot be wholly attributed to the *services* provided by Root Capital.

Finally, while these two clients are representative of a typical Root Capital client, we must point out that our services are client-driven, so there might be differences in the specific programs or services that each client received.



# **Annex I. Propensity Score Matching Results**

#### Table A - 1. Impact of Root Capital on selected outcome variables (full sample)

#### PERFORMANCE OF THE FARM - Impact on key indicators of farm' financial performance (increase in Mexican pesos) and product (kilograms of coffee)

| Average Price<br>(\$MXN) | Production (kg) | Amount sold (kg) | Revenue<br>(\$MXN) |
|--------------------------|-----------------|------------------|--------------------|
| 2.317***                 | 89.20***        | 54.29*           | 6,188***           |

#### CERTIFICATION - Percentage change in the probability of having a certificate (%)

| Certification | Organic<br>Certification | Fairtrade Certification |
|---------------|--------------------------|-------------------------|
| 21.7***       | 27.2***                  | 21.8***                 |

#### AGRICULTURAL PRACTICES - Percentage change in the probability of implementing a specific practice (%)

| Replanting | Shade Pruning  | Contour Line | Terraces   | Living Barriers | Channels    | Cover Crops | Mulching | Rainwater Harv.   |
|------------|----------------|--------------|------------|-----------------|-------------|-------------|----------|-------------------|
| 7.59**     | 3.9*           | 6.9*         | 11.8***    | 15.7***         | 11.1***     | 9.48**      | 6.63*    | 3.58*             |
| Irrigation | Coffee Pruning | Fungicides   | Pesticides | Herbicides      | Borer Traps | Manure      | Compost  | Synt. Fertilizers |
| 7.89*      | 5.68           | -7.37**      | -8.1***    | -14.2***        | -3.36       | 1.41        | 9.88**   | -7.81***          |

#### ACCESS TO FINANCIAL SERVICES - Percentage change in the probability of accessing specific financial services (%)

| Access to Cred     | it                                    |              |                     |                 |                             |
|--------------------|---------------------------------------|--------------|---------------------|-----------------|-----------------------------|
| Commercial<br>Bank | Digital Financial<br>Service Provider | Cooperatives | Family /<br>Friends | Informal lender | Access to a Bank<br>Account |
| 4.36               | 1.81                                  | 2.63         | 3.75                | 1.40            | 2.27                        |
| Savings Manage     | ement                                 |              |                     |                 |                             |
| Commercial<br>Bank | Digital Financial<br>Service Provider | Cooperatives | Family /<br>Friends | Informal lender |                             |
| -0.349             | 0.693                                 | 0.522        | 3.12                | 1.39            |                             |

#### GROUP COLLECTIVE AGENCY - Percentage change in the probability of members having a STRONG perception about cooperative dynamics (%)

| Members<br>agreeing<br>together on<br>new goals | Members giving<br>their opinion on<br>setting new goals | Members giving their<br>opinion on how<br>achieving goals | Members<br>cooperating<br>for achieving<br>goals | Progress of the<br>cooperative to achieve<br>goals | Motivation of the<br>members to<br>cooperate | Mutual help among<br>members to recover<br>from obstacles |  |
|---|---|---|--|--|--|---|--|
| 2.23  | 5.21**  | 7.81***   | 3.17   | 6.55**   | 5.96**                                       | 6.31**  |  |

#### SEXUAL HOSTILITY -Percentage change in the probability of NEVER experienced / perception of NEVER experiencing the following (%)

In the workplace, NEVER have experienced:

|   | Treated as<br>inferior<br>because of<br>Gender | Sexual comments /<br>jokes / stories | Comments on people<br>not suitable for their<br>work because of their<br>gender |   | Unwanted attempts for<br>dating or sexual<br>relationship despite<br>efforts to discourage | Physical contact<br>in a sexual way<br>without consent | Offer of job benefits with expectation of sexual favors       | Sexual propositions | Fear because of<br>threats of getting firec<br>for refusing to have<br>sexual relations |
|---|--|--------------------------------------|---|---|--|--|---|---------------------|---|
|   | 2.56   | 8.06**                               | 3.54  | 5.28  | -0.887   | 2.30   | -1.06   | 0.707               | 0.709   |
| ł | Perception of pe                               | opie of your same sex                | and age NEVER expent  | iencing:  |  |  |   |                     |   |
|   | Treated as<br>inferior<br>because of<br>Gender | Sexual comments /<br>jokes / stories | Comments on people<br>not suitable for their<br>work because of their<br>gender | Gossip or<br>rumors about<br>sexuality or<br>sex life | Unwanted attempts for<br>dating or sexual<br>relationship despite<br>efforts to discourage | Physical contact<br>in a sexual way<br>without consent | Offer of job benefits<br>with expectation of<br>sexual favors | Sexual propositions | Fear because of<br>threats of getting firec<br>for refusing to have<br>sexual relations |
|   | 1.16   | 1.95                                 | 2.47  | 2.75  | 5.02*  | 2.23   | 3.56  | -1.43               | 2.05  |

#### SEXUAL VIOLENCE -Percentage change in the opinion regarding whether a husband is justified in using physical violence in specific situations (%)

| If leaving without telling? | If neglecting children? | If it burns the food? | if arguing with him? | Engaging in new<br>income- activities<br>without consent? | If refusing to<br>have sex with<br>him? | If talking to other men in the community? |
|-----------------------------|-------------------------|-----------------------|----------------------|---|---|---|
| 1.05                        | 1.22                    | 2.45                  | 1.30                 | 1.06  | -2.32                                   | 4.83*                                     |

#### TIME ALLOCATION - Impact on the number of hours allocated by activity (hours)

| Resting      | Domestic Work             | Cooking                 | Childcare            | Adult care | Agricultural work<br>(grains) | Training/meetings about agriculture | Animal<br>husbandry |
|--------------|---------------------------|-------------------------|----------------------|------------|-------------------------------|-------------------------------------|---------------------|
| 0.444*       | 0                         | -0.0416                 | -0.0347              | 0.0208     | -0.482                        | 0.00347                             | 0.0312              |
| Horticulture | Working as an<br>employee | Working own<br>business | Social<br>Activities | Eating     | School                        | Household care                      | Agriculture         |
| 0.0520       | -0.00347                  | -0.00693                | -0.0416              | 0.0555     | 0.0381                        | -0.0555                             | -0.478              |

Note. Asterisks denote statistical significance at confidence interval of 99% (\*\*\*), 95% (\*\*) and 90% (\*), respectively.



## Table A - 2 Impact of Root Capital on selected outcome variables

## (Analysis restricted to women member of cooperatives)

| PERFORMANCE OF THE FARM - Impact on key indicators of farm' financial performance (increase in Mexican pesos) and produc | uct (kilograms of coffee) |
|--|---------------------------|
|--|---------------------------|

| 5.79       8.38*       9.39       1.11       3.85       7.94       1.16       9.55       0.526         Imgation       Coffee Pruning       Fungicides       Pesticides       Herbicides       Borer Traps       Manure       Compost       Synt. Fertilizer         4.81       1.05       -20.1***       -19.4***       -19.4***       -12.0*       2.7       5.95       -12.6**         ACCESS TO FINANCIAL SERVICES - Percentage change in the probability of accessing specific financial services (%)       Access to a Bank Account       3.66       1.1       3.7       1.1***       -1.58         Savings Management       Service Provider       Cooperatives       Family / Friends       Informal lender       -3.19         4.26       0.524       3.16       5.76       0.526       3000000000000000000000000000000000000   | PERFORMANC       | E OF THE FARM - In   | npact on key indicat   | ors of farm' fina | ncial performance (incre  | ease in Mexican p | esos) and product (kilo  | grams of coffee | e)                 |
|---|------------------|----------------------|------------------------|-------------------|---------------------------|-------------------|--------------------------|-----------------|--------------------|
| Certification         Organic   | Average Price    |                      |                        | Revenue           |                           |                   |                          | -               |                    |
| Cardification<br>21 5**         Conjenication<br>20 5**         Ferritation<br>20 5**         Contribute<br>20 6***         Ferritation<br>20 5**           AGRULUTURAL PRACTICES - Percentage change in the probability of implementing a specific practice (%).         Channels         Cover Crops         Mulching         Rainwister Har           579         8.38*         9.39         1.11         3.85         7.94         1.16         9.95         0.265*           4.81         1.05         -20.1**         19.4**         19.4**         12.0**         5.79         5.95         -12.6***           ACCESS TO FINANCIAL SERVICES - Percentage change in the probability of increasing specific financial services (%)<br>tocoses to Creating Specific financial services (%)<br>tocoses to Creatin  | -0.147           | 103.2**              | 83.89*                 |                   |                           |                   |                          |                 |                    |
| Cardification<br>21 5**         Conjenication<br>20 5**         Ferritation<br>20 5**         Contribute<br>20 6***         Ferritation<br>20 5**           AGRULUTURAL PRACTICES - Percentage change in the probability of implementing a specific practice (%).         Channels         Cover Crops         Mulching         Rainwister Har           579         8.38*         9.39         1.11         3.85         7.94         1.16         9.95         0.265*           4.81         1.05         -20.1**         19.4**         19.4**         12.0**         5.79         5.95         -12.6***           ACCESS TO FINANCIAL SERVICES - Percentage change in the probability of increasing specific financial services (%)<br>tocoses to Creating Specific financial services (%)<br>tocoses to Creatin  |                  | Porcontago chang     | o in the probability o | f having a cortif | icato $(%)$               |                   |                          |                 |                    |
| 21.5***20.6***26.0***CHRCUTURAL PRACTICES Percentage name in the probability of implementing a specific price (%)Cover GopsMudningRamweter Har5.788.3*9.331.113.357.941.169.500.326ingetion1.05-20.1***-19.4***-19.4***1.20*2.75.963.26***CCESS TO TONN-CLAL SERVICES - Percentage change in the probability of accessing specific financial services (%)Access to BrainAccess to BrainAccess to BrainSarings ManagementGoperativesFamily /<br>FriendsInformal lenderAccess to BrainAccess to BrainSarings ManagementDigital Francial<br>BarkCooperativesFamily /<br>FriendsInformal lenderAccess to BrainSarings ManagementService ProviderCooperativesFamily /<br>FriendsInformal lenderMarches givesKaccentGennerical<br>BarkOffael Francial<br>Service ProviderCooperativesFamily /<br>FriendsInformal lenderMarches givesKaccentMembers gives<br>gives0.5265.750.5261.09***********************************  |                  | Organic              | Fairtrade              | i naving a certin | icale (70)                |                   |                          |                 |                    |
| Control CULTURAL PRACTICES - Percentage change in the probability of implementing a specific practice (%).         Cover Corps         Muching         Rainwale has a specific practice (%).           Replaning         Saar         9.39         1.11         3.55         7.54         1.16         9.50         0.268           Impact On Conter Printing         Functions         Persistions         Barry 1.13         3.55         7.54         1.16         9.50         0.268           Conter Printing         Functions         Persistions         Barry 1.13         3.55         7.54         1.16         9.56         1.26************************************  | 01 5***          |                      |                        |                   |                           |                   |                          |                 |                    |
| Regioning<br>5.79         Shade Punning<br>3.83         Control Line<br>9.38         Terrases<br>1.11         Living Barriers<br>3.85         Charee Boung<br>7.94         Concer Copps<br>1.16         Mulculing<br>9.55         Reinvester<br>0.526           CEREST DF INACALL SERVICES - Percentage change in the probability of accessing specific financial services (%)         Access to Bark<br>Access to Credit           Commercial<br>Bark         Digital Financial<br>Bark         Cooperatives<br>Financial<br>Cooperatives<br>Financial<br>Cooperatives<br>Financial<br>Cooperatives<br>Financial<br>Cooperatives<br>Financial<br>Cooperatives<br>Financial<br>Genetic Provide<br>Access to Credit         Access to Bark<br>Access to Bark<br>Access to Credit           Commercial<br>Digital Financial<br>Cooperatives<br>Financial<br>Genetic Provide<br>Active Provide<br>Active Provide<br>Genetic Provide<br>Active Provide<br>Genetic Provide<br>Security<br>Genetic Provide<br>Security<br>Genetic Provide<br>Cooperative<br>Security<br>Genetic Provide<br>Genetic Provide<br>Security<br>Genetic Provide<br>Genetic Provide<br>Genetic Provide<br>Genetic Provide<br>Security<br>Genetic Provide<br>Genetic Provide<br>Geneti |                  |                      |                        |                   |                           |                   |                          |                 |                    |
| 5.7         8.33"         9.39         1.11         3.35         7.74         1.16         9.55         0.25           Inigation         Colfee Punning         Fungicides         Pesticides         Boart Traps         Manue         Compost         Synt. Fentilize           4.81         1.05         -20.1"         -19.4"         -12.0"         27 <td>AGRICULTURAL</td> <td>PRACTICES - Perce</td> <td>entage change in the</td> <td>probability of ir</td> <td>nplementing a specific  </td> <td>practice (%)</td> <td></td> <td></td> <td></td>   | AGRICULTURAL     | PRACTICES - Perce    | entage change in the   | probability of ir | nplementing a specific    | practice (%)      |                          |                 |                    |
| Image of the section of the sectin of the section of the section of the section of the s   | Replanting       | Shade Pruning        | Contour Line           | Terraces          | Living Barriers           | Channels          | Cover Crops              | Mulching        | Rainwater Harv     |
| 4.811.054.20, 14***-19.4***-19.4***-12.0***2.75.95-12.6***ACCESS TO FINANCIAL SERVICES - Percentage change in the probability of accessing specific financial services (%)<br>Lesses to Credit<br>Bank ageneral<br>Optidal Financial<br>Service ProviderCooperativesFamily /<br>FriendsInformal lenderAccess to a Bank<br>Access to a Bank<br>Access to a Gank<br>Access to   | 5.79             | 8.38*                | 9.39                   | 1.11              | 3.85                      | 7.94              | 1.16                     | 9.55            | 0.526              |
| COCRESS TO FINANCIAL SERVICES - Percentage change in the probability of accessing specific financial services (%)         Access to credit         Commercial<br>Bank<br>Sanidos       Digital Financial<br>Service Provider       Cooperatives<br>Financial<br>Bank<br>Service Provider       Cooperatives<br>Financial<br>Service Provider       Financial<br>Cooperatives<br>Financial<br>Bank<br>Service Provider       Cooperatives<br>Financial<br>Service Provider       Financial<br>Cooperative<br>Financial<br>Bank<br>Service Provider       Cooperatives<br>Financial<br>Service Provider       Financial<br>Service Provider       Financial<br>Service Provider       Access to a Bank<br>Account       Access to a Bank<br>Account         4.26       0.524       3.16       5.76       0.528  | Irrigation       | Coffee Pruning       | Fungicides             | Pesticides        | Herbicides                | Borer Traps       | Manure                   | Compost         | Synt. Fertilizers  |
| kccess to creditUniformal lenderAccess to a Bank<br>Access  | -4.81            | 1.05                 | -20.1***               | -19.4***          | -19.4***                  | -12.0*            | 2.7                      | 5.95            | -12.6***           |
| Access to CraditCooperativesFamily / Financial<br>FriendsInformal lenderAccess to a Bank<br>Access to   | ACCESS TO FIN    | ANCIAL SERVICES -    | Percentage change      | in the probabilit | ty of accessing specific  | financial service | s (%)                    |                 |                    |
| Commercial<br>Bank<br>3.66Digital Financial<br>Service ProvderCooperatives<br>FinendsFriends<br>FinendsInformal lender3.661.13.71.11"-1.58Samuer<br>Bank<br>4.201.02Sarvice ProvderCooperatives<br>FinendsInformal lenderService Provder<br>4.20Cooperatives<br>Service ProvderCooperatives<br>FinendsInformal lenderService Provder<br>4.20Cooperatives<br>Service ProvderCooperatives<br>FinendsInformal lenderMembers<br>gegeting new<br>gediter on new<br>setting new goalsMembers giving<br>now achieving opals<br>goalsMembers<br>goalsProgress of the<br>cooperative to<br>soceparative to<br>cooperative to<br>soceparative to<br>socepara   |                  |                      |                        |                   | .,                        |                   |                          |                 |                    |
| 3.661.13.71.11***-1.58-3.19Savings ManagementObject Financial<br>Service ProviderCooperativesFinancial<br>FinancialInformal lender4.200.5243.165.760.526SROUP COLLECTVE AGENCY - Percentage change in the probability of members having a genes<br>operating genes<br>genes<br>gatering new gealsMembers giving<br>how achieving<br>pasisMembers giving<br>pasisMembers diving<br>pasisMembers diving<br>pasisMembers diving<br>pasisMembers diving<br>pasisMembers diving<br>pasisMembers diving<br>pasisProgress of the<br>cooperative lo<br>pasisMotivation of<br>pasisMutual help among<br>members to recover<br>from obstacles5.148.571.0.4*5.175.786.910.9**5.148.571.0.4*5.175.786.910.9**Treated as<br>relations the workplace.Serual comments<br>work becauseComments on<br>people not<br>sexual from the geneticPhysical<br>contact in a<br>sexual from the specification of<br>sexual from<br>sexual from<br>consentOffer of job benefits<br>sexual from<br>sexual from<br>sexual from<br>sexual from the specification discourage<br>sexual from the specification discourage<br>efforts to discourageOffer of job benefits<br>sexual from<br>sexual from<br>sex  | Commercial       | Digital Financial    | Cooperatives           | -                 | Informal lender           |                   |                          |                 |                    |
| Service Provide<br>Bank<br>Bernel Provide<br>Service Pr   |                  |                      | 37                     |                   | -1 58                     |                   |                          |                 |                    |
| Commercial<br>Bank<br>BankDigital<br>Service Provider<br>Service ProviderCooperatives<br>FriendsInformal lender4.2.60.5243.165.760.526SROUP COLLECT/F AGENCY - Percentage change in the probability of members having agreeing<br>agreeing agreeing<br>goalsMembers giving<br>their opinion on<br>wachieving<br>goalsMembers giving<br>for achieving<br>goalsProgress of the<br>cooperative in<br>achieve goalsMutual help among<br>members to recover<br>from obtacles5.148.57'10.4"5.775.786.910.9"SEVUAL HOSTILITY - Percentage change in the probability of NEVER experienced / perception of NEVER experiencing<br>their opinion on<br>sutable for their<br>achieve goalsOffer of job benefits<br>sexual favorsSexual<br>proposition<br>sexual for refusion<br>for dating or sexual<br>relationship despite<br>of GenderOffer of job benefits<br>sexual for or fusion<br>sexual for or fusion<br>sexual for or fusion<br>sexual favorsSexual<br>sexual for or fusion<br>their genderPhysicial<br>sexual for or fusion<br>sexual favorsOffer of job benefits<br>sexual for or fusion<br>sexual for or fusion<br>sexual favorsSexual<br>sexual for or fusion<br>their genderCommernits on<br>sexual for or fusion<br>sexual favorsSexual<br>sexual for or fusion<br>sexual for or fusion<br>sexual for or fusion<br>sexual favorsSexual<br>sexual for or fusion<br>sexual for or fusion<br>sexual favorsSexual<br>sexual for or fusion<br>sexual favorsSexual<br>sexual for or fusion<br>sexual favorsSexual<br>sexual favorsSexual<br>sexual favorsSexual<br>sexual favorsSexual<br>sexual favorsSexual<br>sexual favorsSexual<br>sexual favor  |                  |                      | 5.1                    | 1.11              | -1.50                     |                   | -0.13                    |                 |                    |
| Bank<br>4.26Sance ProviderCooperatives<br>FriendsFriends<br>Informal lendor4.260.5243.165.760.5263CROUP COLLECT/F AGENCY - Percentage change in the probability of members having a STRONG perception about cooperative dynamics (%)Members gying<br>their opinion on<br>setting new goalsMembers giving<br>goalsProgress of the<br>cooperative by<br>achieve goalsMutual help among<br>members is to recover<br>from obstacles5.148.57*10.4*5.175.786.910.9**SEXUAL HOSTILITY - Percentage change in the probability of NEVER experienced / perception of NEVER experiences<br>unto be workpace.Progress of the<br>cooperative by<br>achieve goalsOffer of job benefits<br>sexual favorsSexual<br>proposition i<br>threate of gettin<br>fried for frebin<br>about your<br>with because of<br>sexual ity.Offer of job benefits<br>sexual favorsSexual<br>proposition i<br>threate of gettin<br>fried for frebin<br>about your<br>with object in the proposition i<br>threate of gettin<br>for dating or sexual<br>relations in despite<br>efforts to discourageOffer of job benefits<br>sexual favorsSexual<br>proposition i<br>threate of gettin<br>fried for frebin<br>to discourage-5.52.67010.3-1.095.956.490.54-7Sexual comments<br>proposition i<br>thread for their<br>about your<br>with because of<br>sexual into<br>relations to discourageOffer of job benefits<br>sexual favorsSexual<br>proposition-7Sexual comments<br>ipokes / stores-61.644.922.167.697.141.64-8-9.195.461.64   |                  |                      |                        | Family /          |                           |                   |                          |                 |                    |
| AROUP COLLECTUR AGENCY - Percentage change in the probability of members having a STROM perception about cooperative dynamical service dynamical s  |                  |                      | Cooperatives           |                   | Informal lender           |                   |                          |                 |                    |
| Members<br>agreeing<br>goalsMembers giving<br>their opinion on<br>setting new goalsMembers giving<br>for<br>adliving<br>goalsMembers<br>cooperating<br>goalsMotivation of<br>the members<br>achieve goalsMutual help among<br>members to recover<br>from obstacles5.148.57*10.4*5.175.786.910.9**SEXUAL HOSTILITY - Percentage change in the probability of NEVER experienced / perception of NEVER experienced / perception of NEVER experienced / perception of NEVER experienced in the probability of new experienced / perception of NEVER experienced in the probability of new experienced / perception of NEVER experienced in the probability of new experienced / perception of NEVER experienced in the probability of new experienced / perception of NEVER experienced in the probability of new experienced / perception of NEVER experienced in the probability of new experience / perception of numors<br>suitable for their<br>sexuality or<br>with bocause of sexual and with expectation of people of your same sex and age NEVER experiencing:Offer of job benefits<br>with properating<br>consentSexual<br>propositionsSexual<br>proposition of<br>sexual favors<br>abuility of relations in despite<br>arelationship despite<br>without<br>efforts to discourageOffer of job benefits<br>with expectation of<br>sexual favors<br>consentSexual<br>proposition of<br>sexual favors<br>of chaing or sexual<br>relationship despite<br>without<br>consentOffer of job benefits<br>with expectation of<br>sexual favors<br>consentSexual<br>proposition of<br>sexual favors<br>consentSexual<br>proposition of<br>sexual favors<br>consentSexual<br>proposition of<br>sexual favors<br>consentSexual<br>proposition of<br>sexual favors<br>consentSexual<br>proposition of<br>sexual favors <br< td=""><td>-4.26</td><td>0.524</td><td>3.16</td><td>5.76</td><td>0.526</td><td></td><td></td><td></td><td></td></br<>  | -4.26            | 0.524                | 3.16                   | 5.76              | 0.526                     |                   |                          |                 |                    |
| Members<br>agreening<br>operating<br>persion on<br>setting new goalsMembers giving<br>their opinion on<br>setting new goalsMembers giving<br>for<br>advisering<br>goalsProgress of the<br>cooperative b<br>achieve goalsMutual help among<br>members to recover<br>from obstacles5.148.57*10.4*5.175.786.910.9**5.26VLAL HOSTILITY - Percentage change in the probability of NEVER experienced / perception of NEVER experienced / perception of NEVER experienced / perception of Never<br>sexual into<br>runnors<br>adviser perception of their genderMutual help among<br>members of consentSexual favors<br>of perception of their genderMutual help among<br>members of modelsMutual help among<br>members of models7.195.461.644.922.167.697.141.646.046.205.265.820.005.327.97.141.646.0416.105.175.956.   | GROUP COLLEC     | TIVE AGENCY - Per    | centage change in th   | he probability of | members having a STR      | ONG perception    | about cooperative dyna   | amics (%)       |                    |
| agreeing<br>ogether on new<br>setting new goalstheir opinion on<br>source parative if<br>goalsProgress of the<br>achieve goalsMotion differe<br>their opinion on<br>source parative if<br>goalsMotion differe<br>achieve goalsMotion differe<br>their opinion on<br>source parative if<br>to cooperative if<br>to achieve goalsMotion differe<br>to members to recover<br>from obstacles5.148.57*10.4*5.175.786.910.3**EXEVLAL HOSTILITY - Percentage change in the probability of NEVER experienced / perception of NEVER experiencing the following (%)Sexual<br>proposition of<br>people not<br>rumors<br>of dating or sexual<br>relationship despite<br>efforts to discourageOffer of job benefits<br>sexual for etain<br>their opposition of<br>sexual for or etain<br>to dating or sexual<br>relationship despite<br>efforts to discourageOffer of job benefits<br>sexual favorsSexual<br>propositionsFear because<br>threats of gettin<br>to have sexua<br>relationship despite<br>efforts to discourageOffer of job benefits<br>with out consentSexual<br>propositionsFear because<br>threats of gettin<br>fred for return<br>to have sexua<br>relationship despite<br>efforts to discourageOffer of job benefits<br>without<br>consentSexual<br>propositionsFear because<br>threats of gettin<br>fred for return<br>to have sexual<br>for dating or sexual<br>relationship despite<br>efforts to discourageOffer of job benefits<br>without<br>consentSexual<br>sexual favorsSexual<br>propositionsFear because<br>threats of gettin<br>fred for return<br>to have sexua<br>efforts b discourageSexual<br>sexual favorsSexual<br>sexual favorsFear because<br>threats of gettin<br>fred for return<br>tor dating or s  |                  |                      |                        |                   |                           |                   |                          |                 |                    |
| originationsetting new goalsnow achieving goals<br>goalsachieve goalsto cooperatefrom obstacles5.148.57*10.4*5.175.786.910.9**SEXUAL HOSTILLITY -Percentage change in the probability of NEVER experienced / perception of NEVER experiencing the following (%)In the workplace, NEVER have experienceComments on<br>people not<br>their genderMinors<br>about your<br>sexuality,<br>efforts to discouragePhysical<br>contact in a<br>sexual way<br>without<br>consentOffer of job benefits<br>sexual favorsSexual<br>propositionsFear because,<br>threats of gettri<br>fired to return<br>threats of gettri<br>fired to return<br>elationship despite<br>efforts to discourageOffer of job benefits<br>without<br>consentSexual<br>sexual favorsSexual<br>propositionsFear because,<br>threats of gettri<br>fired to return<br>threats of gettri<br>fired to return<br>to dationship despite<br>work because of<br>sexuality,<br>sexual favorsOffer of job benefits<br>sexual favorsSexual<br>sexual favorsSexual<br>sexual favorsFear because,<br>threats of gettri<br>to dation or sexual<br>relationship despite<br>without<br>consentOffer of job benefits<br>sexual favorsSexual<br>sexual favorsFear because,<br>threats of gettri<br>to dation or sexual<br>relationship despite<br>without<br>consentOffer of job benefits<br>sexual favorsSexual<br>sexual favorsFear because,<br>threats of gettri<br>threats of gettri<br>to dation or sexual<br>relationship despite<br>without<br>consentOffer of job benefits<br>with expectation of<br>sexual favorsSexual<br>sexual favorsSexual<br>sexual favorsFear because,<br>threats of gettri<br>to datin o  |                  |                      |                        |                   |                           |                   | , ,                      |                 |                    |
| EVEXAL HOSTLIFY -Precentage change in the probability of NEVER experienced / perception of NEVER experienced.Treated as<br>of GenderSexual comments<br>people not<br>their genderGossip or<br>people not<br>their genderUnwanted attempts<br>of Gassip or<br>their genderPhysical<br>contact in a<br>sexual way<br>without<br>consentOffer of job benefits<br>sexual favorsSexual<br>propositionsFerabecause<br>thease so gent<br>infred for refusir<br>to have sexual<br>verabult perception of people not<br>sexual perception of people not<br>sexual perception of people not<br>sexual perception of people not<br>suitable for their<br>work because of<br>suitable for their<br>about yourUnwanted attempts<br>of adaing or sexual<br>relationship despite<br>efforts to discouragePhysical<br>contact in a<br>sexual way<br>without<br>consentOffer of job benefits<br>with expectation of<br>sexual favorsSexual<br>sexual favorsSexual<br>sexual favorsFear because<br>the sexual vera<br>vertice in a<br>sexual way<br>withoutOffer of job benefits<br>with expectation of<br>sexual favorsSexual<br>sexual favorsSex  | <u> </u>         |                      |                        |                   |                           |                   |                          |                 |                    |
| In the workplace, NEVER have experienced:<br>Treated as<br>inferior because<br>of Gender<br>-6.95<br>-6.95<br>-2.67<br>-0<br>-2.67<br>  | 5.14             | 8.57*                | 10.4*                  | 5.17              | 5.78                      | 6.9               | 10.9**                   |                 |                    |
| In the workplace, NEVER have experienced:<br>Treated as<br>inferior because<br>of Gender<br>-6.95<br>-6.95<br>-2.67<br>-0<br>-2.67<br>  | SEXUAL HOSTIL    | ITY -Percentage cha  | ange in the probabilit | ty of NEVER exp   | erienced / nerception of  | f NEVER experier  | cing the following (%)   |                 |                    |
| Treated as<br>inferior because<br>of GenderSexual comments<br>people not<br>work because of<br>sexuality<br>their genderUnwanted attempts<br>for dating or sexual<br>relationship despite<br>efforts to discouragePhysical<br>contact in a<br>sexual way<br>without<br>consentOffer of job benefits<br>with expectation of<br>sexual layorsFear because<br>threats of getti<br>fired for reluxing<br>relationship despite<br>efforts to discouragePhysical<br>contact in a<br>sexual way<br>without<br>consentOffer of job benefits<br>with out<br>consentFear because<br>threats of getti<br>fired for reluxing<br>relationship despite<br>efforts to discourageOffer of job benefits<br>without<br>consentFear because<br>threats of getti<br>fired for reluxing<br>relationship despite<br>efforts to discourageOffer of job benefits<br>with expectation of<br>sexual favorsFear because<br>threats of getti<br>fired for reluxing<br>relationship despite<br>efforts to discourageOffer of job benefits<br>with expectation of<br>sexual favorsFear because<br>threats of getti<br>fired for reluxing<br>relationship despite<br>efforts to discourageOffer of job benefits<br>with expectation of<br>sexual favorsFear because<br>threats of getti<br>fired for reluxing<br>to have sexual<br>relationship despite<br>efforts to discouragePhysical<br>   |                  | -                    |                        | .,                | erie i perception e       |                   |                          |                 |                    |
| Treated as<br>inferior because<br>of GenderSexual comments<br>jokes / storiespeople not<br>suitable for their<br>about your<br>work because of<br>sexuality<br>sexuifeOther of job benefits<br>sexual way<br>without<br>consentSexual<br>work<br>sexual favorsSexual<br>propositionsthreats of gettir<br>fired for refusir<br>to have sexual<br>relationship despite<br>efforts to discourageOffer of job benefits<br>with wzpectation of<br>sexual favorsSexual<br>propositionsthreats of gettir<br>fired for refusir<br>to have sexual<br>relationship despite<br>efforts to discourageOffer of job benefits<br>with wzpectation of<br>sexual favorsSexual<br>propositionsthreats of gettir<br>fired for refusir<br>to have sexual<br>relationship despite<br>efforts to discourageOffer of job benefits<br>with wzpectation of<br>sexual favorsSexual<br>propositionsthreats of gettir<br>fired for refusir<br>to have sexual<br>relationship despite<br>efforts to discourageOffer of job benefits<br>with out<br>consentSexual<br>for dating or sexual<br>relationship despite<br>efforts to discourageOffer of job benefits<br>with wzpectation of<br>sexual favorsSexual<br>the access<br>for dating or sexual<br>relationship despite<br>efforts to discourageOffer of job benefits<br>with wzpectation of<br>sexual favorsSexual<br>for dating or sexual<br>relationship despite<br>efforts to discourageOffer of job benefits<br>with wzpectation of<br>sexual favorsSexual<br>for dating or sexual<br>relationship despite<br>efforts to discourageOffer of job benefits<br>with wzpectation of<br>sexual favorsSexual<br>for dating or sexual<br>relationship despite<br>efforts to discourageOffer of job benefits<br>with wzpectation of<br>sexual favorsSexual<br>for da   | in the nemplace, |                      |                        | Gossip or         |                           | Physical          |                          |                 | Fear because o     |
| Initial backbase<br>of Gender/ jokes / storiesSuitable for their<br>work because of<br>sexual<br>sex liferelationship despite<br>efforts to discourageSexual way<br>with ut<br>consentWith expectation of<br>sexual favorspropositionsIf to relation<br>to have sexua<br>relationship<br>to have sexua<br>relationship-6.952.67010.3-1.095.956.49-0.544.32-2erception of people of your same sex and age NEVER experiencing:Comments on<br>people not<br>suitable for their<br>about<br>of GenderOmset<br>rumors<br>suitable for their<br>about<br>of dating or sexual<br>relationship despite<br>efforts to discouragePhysical<br>contact in a<br>sexual way<br>without<br>consentOffer of job benefits<br>sexual favorsFear because<br>thereats of gettir<br>fred for refusir<br>to have sexua<br>urelationship despite<br>efforts to discouragePhysical<br>contact in a<br>sexual way<br>without<br>consentOffer of job benefits<br>sexual favorsSexual<br>propositionsFear because<br>thereats of gettir<br>fred for refusir<br>to have sexua<br>urelationship despite<br>efforts to discouragePhysical<br>contact in a<br>sexual way<br>without<br>consentSexual<br>for for bole benefits<br>sexual favorsFear because<br>threats of gettir<br>fred for refusir<br>to have sexua<br>urelationship despite<br>efforts to discourageOffer of job benefits<br>sexual favorsSexual<br>for dating or sexual<br>relationship despite<br>efforts to discourage<br>consentPhysical<br>contact in a<br>sexual favorsSexual<br>for for bole benefits<br>sexual favorsSexual<br>for for bole benefits<br>sexual favorsSexual<br>for for for bole benefits<br>sexual favorsSexual<br>for fo  | Treated as       | Sexual comments      | people not             |                   |                           |                   |                          | Sevual          | threats of gettin  |
| of Gender1Work because of<br>their gendersexuality,<br>their genderefforts to discourage<br>consentWindut<br>consentsexual ravors1to have sexual<br>relations-6.952.67010.3-1.095.956.49-0.544.32Perception of people of your same sex and age NEVER experiencing:Comments on<br>people not<br>suitable for their<br>about<br>their genderGossip or<br>rumors<br>sexual<br>relationship despite<br>efforts to discourageUnwanted attempts<br>for dating or sexual<br>relationship despite<br>efforts to discourageOffer of job benefits<br>sexual work hexpectation of<br>sexual favorsSexual<br>propositionsFear because a<br>threats of getti<br>fred for refusir<br>to have sexual<br>relationship despite<br>efforts to discourageOffer of job benefits<br>sexual avorsSexual<br>fred for refusir<br>to have sexual<br>relationship despite<br>efforts to discourageOffer of job benefits<br>sexual favorsSexual<br>fred for refusir<br>to have sexual<br>relationship despite<br>efforts to discourageOffer of job benefits<br>sexual favorsSexual<br>fred for refusir<br>to have sexual<br>relationship despite<br>efforts to discourageOffer of job benefits<br>sexual favorsSexual<br>fred for four<br>for dor refusir<br>to have sexual<br>relationship despite<br>efforts to discourageOffer of job benefits<br>sexual favorsSexual<br>for dor refusir<br>to have sexual<br>relationship despite<br>efforts to discourageOffer of job benefits<br>sexual favorsSexual<br>for dor four<br>to have sexual<br>relations-9.195.461.644.922.167.697.141.646.04SEXUAL VIOLENCE - P  |                  |                      |                        | -                 | 0                         | -                 |                          |                 |                    |
| -6.952.67010.3-1.095.956.49-0.544.32Perception of people of your same sex and age NEVER experiencing:Treated as<br>people not<br>suitable for their<br>work because of<br>their genderGossip or<br>rumors<br>sex lifeUnwanted attempts<br>for dating or sexual<br>rabout<br>sexuality or<br>sex lifePhysical<br>contact in a<br>sexual way<br>without<br>consentOffer of job benefits<br>with expectation of<br>sexual favorsSexual<br>propositionSexual<br>threats of gettin<br>fried for refusion<br>threads of gettin<br>for dating or sexual<br>about<br>sexuality or<br>sexuality or<br>sex lifeUnwanted attempts<br>for dating or sexual<br>about<br>sexual way<br>sexual way<br>without<br>consentOffer of job benefits<br>with expectation of<br>sexual favorsFear because of<br>threats of gettin<br>fried for refusion<br>to have sexual<br>relationship despite<br>efforts to iscourageOffer of job benefits<br>with expectation of<br>sexual favorsSexual<br>sexual way<br>sexual favorsSexual<br>propositionFear because of<br>threats of gettin<br>for dating or sexual<br>relationship despite<br>efforts to iscourageOffer of job benefits<br>with expectation of<br>sexual favorsSexual<br>for dating or sexual<br>sexual way<br>sexual favorsOffer of job benefits<br>sexual favorsSexual<br>fear because of<br>threats of gettin<br>fried for refusion<br>to have sexual<br>relationship despite<br>efforts to iscourageSexual favorsSexual<br>sexual favorsSexual<br>favorsSexual<br>favorsSexual<br>favorsSexual<br>favorsSexual<br>favorsSexual<br>favorsSexual<br>favorsSexual<br>favorsSexual<br>favorsSexual<br>favorsSexual <b< td=""><td>of Gender</td><td></td><td></td><td></td><td></td><td></td><td>sexual favors</td><td>propositiono</td><td></td></b<>  | of Gender        |                      |                        |                   |                           |                   | sexual favors            | propositiono    |                    |
| Perception of people of your same sex and age NEVER experiencing:Comments on people not suitable for their about subte for their about sexual relationship despite efforts to discouragePhysical contact in a sexual contact in a sexual favorsOffer of job benefits with expectation of sexual for observation of sexual favorsSexual some framework because of the treats of gettin framework because of the treats of gettin to have sexual relationship despite efforts to discouragePhysical contact in a sexual favorsOffer of job benefits with expectation of sexual favorsSexual for relationship despite of the treats of gettin to have sexual relationship despite efforts to discouragePhysical consentOffer of job benefits with expectation of sexual favorsSexual favorsSexual favorsSexual favorsSexual relationship despite efforts to discouragePhysical consentOffer of job benefits with expectation of sexual favorsSexual favorsSexual favorsSexual favorsSexual favorsSexual relationship despite efforts to discouragePhysical consentOffer of job benefits with expectation of sexual favorsSexual favorsSexual favorsSexual favorsSexual relationship despite efforts to discouragePhysical consentOffer of job benefits with expectation of sexual relationship despite efforts to discouragePhysical consentOffer of job benefits with expectation of sexual relationship despite efforts to discouragePhysical consentOffer of job benefits with expectation of sexual favorsSexual favors  | -6.95            | 2.67                 |                        |                   | -1.09                     |                   | 6.49                     | -0.54           |                    |
| Treated as<br>nferior because<br>of GenderSexual comments<br>people not<br>subble for their<br>work because of<br>their genderGossip or<br>rumors<br>about<br>sexuality or<br>sexuality or<br>sexuality or<br>sexuality or<br>for dating or sexual<br>relationship despite<br>efforts to discouragePhysical<br>contact in a<br>sexual way<br>without<br>consentOffer of job benefits<br>with expectation of<br>sexual favorsFear because of<br>threats of gettin<br>fried or refusion<br>to have sexua<br>relationship despite<br>efforts to discouragePhysical<br>consentOffer of job benefits<br>with expectation of<br>sexual favorsFear because of<br>threats of gettin<br>fried or refusion<br>to have sexual<br>relations-9.195.461.644.922.167.697.141.646.04SEXUAL VIOLENCE -Percentage change in the opinion regarding whether a husband is justified in using physical violence in specific situations (%)f leaving without<br>telling?If neglecting<br>children?If it burns the<br>food?if arguing<br>with him?Engaging in new<br>income- activities<br>without consent?If refusing to<br>have sex with<br>him?If talking to other<br>men in the<br>community?5.295.265.820.005.327.49-6.35TIME ALLOCATION - Impact on the number of hours allocated by activity (hours)0.534-0.136-0.628-0.0838-0.0628-0.1680.01050.07330.534-0.136-0.628-0.0838-0.0628-0.1680.01050.0733HorticultureWorking as an<br>employeeWorking own<br>businessSocial<br>Activiti   |                  |                      | and age NEV/ER eyror   |                   | -1.05                     | 5.55              | 0.45                     | -0.54           | 4.52               |
| Treated as<br>of GenderSexual comments<br>/ jokes / storiespeople not<br>suitable for their<br>suitable for their<br>sexuality or<br>sex lifeTumors<br>about<br>sexuality or<br>sex lifeOffer of job benefits<br>sexual relationship despite<br>with out<br>consentOffer of job benefits<br>with expectation of<br>sexual favorsSexual<br>propositionsthreats of gettin<br>fired for refusin<br>to have sexual<br>relationship despite<br>efforts to discourageOffer of job benefits<br>with expectation of<br>sexual favorsSexual<br>propositionsthreats of gettin<br>fired for refusin<br>to have sexual<br>relationship despite<br>efforts to discourageOffer of job benefits<br>with expectation of<br>sexual favorsSexual<br>propositionsthreats of gettin<br>fired for refusin<br>to have sexual<br>relationship despite<br>efforts to discourageOffer of job benefits<br>with expectation of<br>sexual favorsSexual<br>propositionsthreats of gettin<br>fired for refusin<br>to have sexual<br>relationship despite<br>efforts to discourageOffer of job benefits<br>with expectation of<br>sexual favorsSexual<br>propositionsthreats of gettin<br>fired for refusin<br>to have sexual<br>relationship despite<br>efforts to discourageOffer of job benefits<br>with expectation of<br>sexual favorsSexual<br>propositionsthreats of gettin<br>fired for refusin<br>to have sexual<br>relationship despite<br>without<br>consent-9.195.461.644.922.167.697.141.646.04SEXUAL VIOLENCE -Percentage change in the opinion regarding whether a husband is justified in using physical violence in specific situations (%)If failing in the<br>internet community?If refusing in new<br>internet community? <td>erception of peo</td> <td>pie or your same sex</td> <td></td> <td>Ť</td> <td></td> <td>Dhysical</td> <td></td> <td></td> <td>Foorboouse</td>   | erception of peo | pie or your same sex |                        | Ť                 |                           | Dhysical          |                          |                 | Foorboouse         |
| Sexual comments<br>of GenderSexual comments<br>/ jokes / storiessuitable for their<br>work because of<br>their genderabout<br>sexuality or<br>sexuality or<br>sexuality or<br>sexuality or<br>sexuality or<br>their genderfor dating or sexual<br>relationship despite<br>efforts to discouragesexual way<br>without<br>consentwith expectation of<br>sexual favorsSexual<br>propositionsfred for refusin<br>to have sexual<br>relationship despite<br>efforts to discourage-9.195.461.644.922.167.697.141.646.04SEXUAL VIOLENCE -Percentage change in the opinion regarding whether a husband is justified in using physical violence in specific situations (%)If neglecting<br>nome activitiesIf refusing to<br>have sex with<br>him?If refusing to<br>have sex with<br>him?If talking to other<br>men in the<br>community?5.295.265.820.005.327.49-6.35TIME ALLOCATION - Impact on the number of hours allocated by activity (hours)Animal<br>mork allocated by activity (hours)Animal<br>husbandryAnimal<br>husbandry0.534-0.136-0.628-0.0838-0.0628-0.1680.01050.0733HorticultureWorking as an<br>employeeWorking own<br>businessSocial<br>ActivitiesEatingSchoolHousehold careAgriculture  | Treated as       |                      |                        |                   |                           | 2                 | Offer of job benefits    |                 |                    |
| of GenderIf work because of<br>their gendersex life<br>sex lifeefforts to discourage<br>consentwithout<br>consentsex life<br>sex lifeit dirave sex life<br>relations-9.195.461.644.922.167.697.141.646.04SEXUAL VIOLENCE -Percentage change in the opinion regarding whether a husband is justified in using physical violence in specific situations (%)f leaving without<br>telling?If it burns the<br>food?if arguing<br>with him?Engaging in new<br>income- activities<br>without consent?If falking to other<br>men in the<br>community?5.295.265.820.005.327.49-6.35FIME ALLOCATION - Impact on the number of hours allocated by activity (hours)0.534-0.136-0.628-0.0838-0.0628-0.1680.01050.0733HorticultureWorking as an<br>employeeWorking own<br>businessSocial<br>ActivitiesEatingSchoolHousehold careAgriculture   |                  |                      |                        |                   |                           |                   |                          |                 | fired for refusing |
| Intering ender<br>sex lifeSex lifeConsentConsentrelations-9.195.461.644.922.167.697.141.646.04SEXUAL VIOLENCE -Percentage change in the opinion regarding whether a husband is justified in using physical violence in specific situans (%)f leaving without<br>telling?If neglecting<br>children?If it burns the<br>food?Engaging in new<br>with him?If refusing to<br>have sex with<br>him?If talking to other<br>men in the<br>community?5.295.265.820.005.327.49-6.35TIME ALLOCATION - Impact on the number of hours allocated by activity (hours)RestingDomestic WorkCookingChildcareAdult careAgricultural<br>work (grains)Training/meetings<br>about agricultureAnimal<br>husbandry0.534-0.136-0.628-0.0838-0.0628-0.1680.01050.0733HorticultureWorking as an<br>employeeWorking own<br>businessSocial<br>ActivitiesEatingSchoolHousehold careAgriculture  | of Gender        | / JOKES / Stories    |                        | -                 |                           |                   | sexual favors            | propositions    | to have sexual     |
| SEXUAL VIOLENCE -Percentage change in the opinion regarding whether a husband is justified is using physical violence in specific situations (%)If leaving without<br>telling?If neglecting<br>food?If arguing<br>with him?Engaging in new<br>income- activities<br>without consent?If refusing to<br>have sex with<br>him?If talking to other<br>men in the<br>community?5.295.265.820.005.327.49-6.35TIME ALLOCATION - Impact on the number of hours allocated by activity HoursRestingDomestic WorkCookingChildcareAdult careAgricultural<br>work (grains)Training/meetings<br>about agricultureAnimal<br>husbandry0.534-0.136-0.628-0.0838-0.0628-0.1680.01050.0733HorticultureWorking as an<br>employeeWorking own<br>businessSocial<br>ActivitiesEatingSchoolHousehold careAgriculture  |                  |                      | 0                      |                   | 0                         |                   |                          |                 |                    |
| f leaving without<br>telling?If neglecting<br>children?If it burns the<br>food?if arguing<br>with him?Engaging in new<br>income- activities<br>without consent?If refusing to<br>have sex with<br>him?If talking to other<br>men in the<br>community?5.295.265.820.005.327.49-6.35TIME ALLOCATION - Impact on the number of hours allocated by activity (hours)RestingDomestic WorkCookingChildcareAdult careAgricultural<br>work (grains)Training/meetings<br>about agricultureAnimal<br>husbandry0.534-0.136-0.628-0.0838-0.0628-0.1680.01050.0733HorticultureWorking as an<br>employeeWorking own<br>businessSocial<br>ActivitiesEatingSchoolHousehold careAgriculture   | -9.19            | 5.46                 | 1.64                   | 4.92              | 2.16                      | 7.69              | 7.14                     | 1.64            | 6.04               |
| f leaving without<br>telling?If neglecting<br>children?If it burns the<br>food?if arguing<br>with him?Engaging in new<br>income- activities<br>without consent?If refusing to<br>have sex with<br>him?If talking to other<br>men in the<br>community?5.295.265.820.005.327.49-6.35TIME ALLOCATION - Impact on the number of hours allocated by activity (hours)RestingDomestic WorkCookingChildcareAdult careAgricultural<br>work (grains)Training/meetings<br>about agricultureAnimal<br>husbandry0.534-0.136-0.628-0.0838-0.0628-0.1680.01050.0733HorticultureWorking as an<br>employeeWorking own<br>businessSocial<br>ActivitiesEatingSchoolHousehold careAgriculture   | SEXUAL VIOLEN    | CE -Percentage cha   | inge in the opinion re | egarding whethe   | er a husband is justified | in using physical | violence in specific sit | uations (%)     |                    |
| Treadving without<br>telling?If it burns the<br>food?If arguing<br>with him?income- activities<br>without consent?have sex with<br>him?men in the<br>community?5.295.265.820.005.327.49-6.35TIME ALLOCATION - Impact on the number of hours allocated by activity (hours)RestingDomestic WorkCookingChildcareAdult careAgricultural<br>work (grains)Training/meetings<br>about agricultureAnimal<br>husbandry0.534-0.136-0.628-0.0838-0.0628-0.1680.01050.0733HorticultureWorking as an<br>employeeWorking own<br>businessSocial<br>ActivitiesEatingSchoolHousehold careAgriculture   |                  |                      |                        |                   |                           |                   |                          | 1               |                    |
| 5.295.265.820.005.327.49-6.35TIME ALLOCATION - Impact on the number of hours allocated by activity (hours)RestingDomestic WorkCookingChildcareAdult careAgricultural<br>work (grains)Training/meetings<br>about agricultureAnimal<br>husbandry0.534-0.136-0.628-0.0838-0.0628-0.1680.01050.0733HorticultureWorking as an<br>employeeWorking own<br>businessSocial<br>ActivitiesEatingSchoolHousehold careAgriculture  | 0                | 0 0                  |                        |                   | income- activities        | have sex with     | men in the               |                 |                    |
| TIME ALLOCATION - Impact on the number of hours allocated by activity (hours)RestingDomestic WorkCookingChildcareAdult careAgricultural<br>work (grains)Training/meetings<br>about agricultureAnimal<br>husbandry0.534-0.136-0.628-0.0838-0.0628-0.1680.01050.0733HorticultureWorking as an<br>employeeWorking own<br>businessSocial<br>ActivitiesEatingSchoolHousehold careAgriculture   | 5.29             | 5.26                 | 5.82                   | 0.00              |                           |                   |                          |                 |                    |
| RestingDomestic WorkCookingChildcareAdult careAgricultural<br>work (grains)Training/meetings<br>about agricultureAnimal<br>husbandry0.534-0.136-0.628-0.0838-0.0628-0.1680.01050.0733HorticultureWorking as an<br>employeeWorking own<br>businessSocial<br>ActivitiesEatingSchoolHousehold careAgriculture  | IME ALLOCATIO    |                      | number of hours allo   | cated by activity |                           |                   |                          |                 |                    |
| RestingDomestic workCookingChildcareAduit carework (grains)about agriculturehusbandry0.534-0.136-0.628-0.0838-0.0628-0.1680.01050.0733HorticultureWorking as an<br>employeeWorking own<br>businessSocial<br>ActivitiesEatingSchoolHousehold careAgriculture   |                  |                      |                        |                   |                           | Agricultural      | Training/meetings        | Animal          |                    |
| Working as an employee         Working own business         Social Activities         Eating         School         Household care         Agriculture  | Resting          | Domestic Work        | Cooking                | Childcare         | Adult care                |                   | 0 0                      |                 |                    |
| employee business Activities Eating School Household care Agriculture   | 0.534            | -0.136               | -0.628                 |                   | -0.0628                   | -0.168            | 0.0105                   | 0.0733          |                    |
| 0.335* 0.136 -0.0524 0.136 0.0419 0.0733 -0.911 -0.157  | Horticulture     |                      | 0                      |                   | Eating                    | School            | Household care           | Agriculture     |                    |
|   | 0.335*           | 0.136                | -0.0524                | 0.136             | 0.0419                    | 0.0733            | -0.911                   | -0.157          |                    |

Note. Asterisks denote statistical significance at confidence interval of 99% (\*\*\*), 95% (\*\*) and 90% (\*), respectively.



## Table A - 3. Impact of Root Capital on selected outcome variables

## (Analysis restricted to youth member of cooperatives)

| Average Price<br>(\$MXN)   | Production (kg)   | Amount sold (kg)   | Revenue<br>(\$MXN)  |   |  |  |                               |   |
|--|---|--|---|---|--|--|-------------------------------|---|
| 2.343**  | 173.4***  | 132.1**  | 8,394**   |   |  |  |                               |   |
| CERTIFICATIO   | N - Percentage chan   | ge in the probability  | of having a cer   | tificate (%)  |  |  |                               |   |
| Certification  | Organic<br>Certification  | Fairtrade<br>Certification   | 0   |   |  |  |                               |   |
| 7.63   | 6.84  | 13.8*  |   |   |  |  |                               |   |
| AGRICULTURA  | L PRACTICES - Per   | centage change in th   | e probability of  | implementing a specific   | c practice (%)   |  |                               |   |
| Replanting   | Shade Pruning   | Contour Line   | Terraces  | Living Barriers   | Channels   | Cover Crops  | Mulching                      | Rainwater Harv  |
| 12.8**   | 6.4   | 0.847  | 2.56  | 13.7*   | 13.6   | 5  | 9.17                          | 8.94  |
| Irrigation   | Coffee Pruning  | Fungicides   | Pesticides  | Herbicides  | Borer Traps  | Manure   | Compost                       | Synt. Fertilizers   |
| 2.44   | -0.8  | -19.7***   | -7.38   | -11.3***  | -9.84  | 1.63   | 2.48                          | -7.2  |
| ACCESS TO FI<br>Access to Cred   |   | 3 - Percentage chang   | e in the probab   | ility of accessing specif   | ic financial servic  | es (%)   |                               |   |
| Commercial<br>Bank   | Digital Financial<br>Service Provider   | Cooperatives   | Family /<br>Friends   | Informal lender   |  | Access to a Bank<br>Account  |                               |   |
| 2.4  | 2.5   | -0.806   | -0.806  | 1.60  |  | 3.2  |                               |   |
| Savings Manag  | jement  |  |   |   |  |  |                               |   |
| Commercial<br>Bank   | Digital Financial<br>Service Provider   | Cooperatives   | Family /<br>Friends   | Informal lender   |  |  |                               |   |
| 3.2  | 2.4   | 4.07   | 4.84  | 0   |  |  |                               |   |
| GROUP COLLE  | CTIVE AGENCY - Pe   | ercentage change in  | the probability   | of members having a ST  | RONG perception  | about cooperative dy   | namics (%)                    |   |
| Members  | Momboro giving  | Members giving   | Members   | Progress of the   | Motivation of  | Mutual help among  |                               |   |
| agreeing<br>gether on new<br>goals   | Members giving<br>their opinion on<br>setting new goals   | their opinion on<br>how achieving<br>goals   | cooperating<br>for achieving<br>goals   | cooperative to<br>achieve goals   | the members<br>to cooperate  | members to recover<br>from obstacles   |                               |   |
| -0.84  | 4.31  | 9.48*  | 6.09  | 4.27  | 0.87   | 9.48**   |                               |   |
|  | ILITY -Percentage cl<br>e, NEVER have expen   |  | lity of NEVER e   | xperienced / perception   | of NEVER experie   | encing the following (%  | )                             |   |
| Treated as<br>iferior because<br>of Gender   | Sexual comments<br>/ jokes / stories  | Comments on<br>people not<br>suitable for their<br>work because of<br>their gender       | Gossip or<br>rumors<br>about your<br>sexuality,<br>sex life                           | Unwanted attempts<br>for dating or sexual<br>relationship despite<br>efforts to discourage              | Physical<br>contact in a<br>sexual way<br>without<br>consent                               | Offer of job benefits<br>with expectation of<br>sexual favors  | Sexual propositions           | Fear because of<br>threats of gettin<br>fired for refusing<br>to have sexual<br>relations |
| 4.07   | 6.45  | -8.26  | -0.813  | 3.25  | 2.42   | 0  | -2.42                         | 7.32  |
| Perception of pe   | eople of your same se   | x and age NEVER ex   | periencing:   |   |  |  |                               |   |
| Treated as<br>oferior because<br>of Gender   | Sexual comments<br>/ jokes / stories  | Comments on<br>people not<br>suitable for their<br>work because of<br>their gender       | Gossip or<br>rumors<br>about<br>sexuality or<br>sex life                              | Unwanted attempts<br>for dating or sexual<br>relationship despite<br>efforts to discourage              | Physical<br>contact in a<br>sexual way<br>without<br>consent                               | Offer of job benefits<br>with expectation of<br>sexual favors  | Sexual propositions           | Fear because of<br>threats of gettin<br>fired for refusing<br>to have sexual<br>relations |
| 10.0   | 7.38  | -4.1   | -2.44   | 0.806   | 3.23   | 5.69   | 3.25                          | 3.23  |
| -12.3  |   |  |   |   |  |  | 1                             |   |
|  |   | nange in the opinion   | regarding whet  | her a husband is iustifie   | d in using physic  | al violence in specific s  | situations (%)                |   |
|  |   |  |   | her a husband is justifie   |  |  | situations (%)                |   |
| SEXUAL VIOLE   |   | nange in the opinion<br>If it burns the<br>food?   | regarding whet<br>if arguing<br>with him?   | her a husband is justifie<br>Engaging in new<br>income- activities<br>without consent?                  | If refusing physic<br>If refusing to<br>have sex with<br>him?                              | al violence in specific s<br>If talking to other<br>men in the<br>community?                                 | situations (%)                |   |
| SEXUAL VIOLE   | ENCE -Percentage ch   | If it burns the  | if arguing  | Engaging in new income- activities  | If refusing to have sex with   | If talking to other men in the   | situations (%)                |   |
| SEXUAL VIOLE<br>If leaving<br>rithout telling?<br>0                                      | ENCE -Percentage ch<br>If neglecting<br>children?<br>2.44   | If it burns the food?  | if arguing<br>with him?<br>-0.81  | Engaging in new<br>income- activities<br>without consent?<br>5.79                                       | If refusing to<br>have sex with<br>him?  | If talking to other<br>men in the<br>community?  | situations (%)                |   |
| SEXUAL VIOLE<br>If leaving<br>vithout telling?<br>0                                      | ENCE -Percentage ch<br>If neglecting<br>children?<br>2.44   | If it burns the food?  | if arguing<br>with him?<br>-0.81  | Engaging in new<br>income- activities<br>without consent?<br>5.79                                       | If refusing to<br>have sex with<br>him?<br>-3.33<br>Agricultural                           | If talking to other<br>men in the<br>community?<br>3.31<br>Training/meetings                                 | Animal                        |   |
| SEXUAL VIOLE<br>If leaving<br>without telling?<br>0<br>TIME ALLOCAT<br>Resting           | ENCE -Percentage cf<br>If neglecting<br>children?<br>2.44<br>FION - Impact on the<br>Domestic Work                              | If it burns the<br>food?<br>4<br>number of hours all<br>Cooking                          | if arguing<br>with him?<br>-0.81<br>ocated by activ<br>Childcare                      | Engaging in new<br>income- activities<br>without consent?<br>5.79<br>ity (hours)<br>Adult care          | If refusing to<br>have sex with<br>him?<br>-3.33<br>Agricultural<br>work (grains)          | If talking to other<br>men in the<br>community?<br>3.31<br>Training/meetings<br>about agriculture            | Animal<br>husbandry           |   |
| SEXUAL VIOLE<br>If leaving<br>vithout telling?<br>0<br>TIME ALLOCAT                      | ENCE -Percentage cf<br>If neglecting<br>children?<br>2.44<br>FION - Impact on the<br>Domestic Work<br>-1.024**<br>Working as an | If it burns the<br>food?<br>4<br>number of hours all<br>Cooking<br>-0.288<br>Working own | if arguing<br>with him?<br>-0.81<br>ocated by activ<br>Childcare<br>-0.0960<br>Social | Engaging in new<br>income- activities<br>without consent?<br>5.79<br>ity (hours)<br>Adult care<br>0.112 | If refusing to<br>have sex with<br>him?<br>-3.33<br>Agricultural                           | If talking to other<br>men in the<br>community?<br>3.31<br>Training/meetings                                 | Animal<br>husbandry<br>0.0640 |   |
| SEXUAL VIOLE<br>If leaving<br>vithout telling?<br>0<br>TIME ALLOCAT<br>Resting<br>0.864* | ENCE -Percentage cf<br>If neglecting<br>children?<br>2.44<br>FION - Impact on the<br>Domestic Work<br>-1.024**                  | If it burns the<br>food?<br>4<br>number of hours all<br>Cooking<br>-0.288                | if arguing<br>with him?<br>-0.81<br>ocated by activ<br>Childcare<br>-0.0960           | Engaging in new<br>income- activities<br>without consent?<br>5.79<br>ity (hours)<br>Adult care          | If refusing to<br>have sex with<br>him?<br>-3.33<br>Agricultural<br>work (grains)<br>0.400 | If talking to other<br>men in the<br>community?<br>3.31<br>Training/meetings<br>about agriculture<br>-0.0960 | Animal<br>husbandry           |   |

Note. Asterisks denote statistical significance at confidence interval of 99% (\*\*\*), 95% (\*\*) and 90% (\*), respectively.

0.0480

0.160

0.128

-1.296\*\*

0.304

-0.240

0.0320

-0.352



#### Table A - 4. Impact of Root Capital on selected outcome variables

#### (Analysis restricted to youth women member of cooperatives)

#### PERFORMANCE OF THE FARM - Impact on key indicators of farm' financial performance (increase in Mexican pesos) and product (kilograms of coffee)

| Average Price<br>(\$MXN) | Production (kg) | Amount sold (kg) | Revenue<br>(\$MXN) |
|--------------------------|-----------------|------------------|--------------------|
| 2.128                    | 137.3           | 165.0*           | 8,013              |

#### CERTIFICATION - Percentage change in the probability of having a certificate (%)

| Certification | Organic<br>Certification | Fairtrade<br>Certification |
|---------------|--------------------------|----------------------------|
| 19.1          | 26.1*                    | -10.9                      |

#### AGRICULTURAL PRACTICES - Percentage change in the probability of implementing a specific practice (%)

| Replanting | Shade Pruning  | Contour Line | Terraces   | Living Barriers | Channels    | Cover Crops | Mulching | Rainwater Harv.   |
|------------|----------------|--------------|------------|-----------------|-------------|-------------|----------|-------------------|
| 16.7       | 14.6*          | 11.9         | 0          | 15.9            | 7.94        | 2.17        | 9.55     | -14.9             |
| Irrigation | Coffee Pruning | Fungicides   | Pesticides | Herbicides      | Borer Traps | Manure      | Compost  | Synt. Fertilizers |
| -12.8      | 4.17           | -20.1***     | -19.4***   | -19.4***        | -12.0*      | 17          | 17.4     | -12.6***          |

#### ACCESS TO FINANCIAL SERVICES - Percentage change in the probability of accessing specific financial services (%)

| Access to Credi    | t                                     |              |                     |                 |                             |
|--------------------|---------------------------------------|--------------|---------------------|-----------------|-----------------------------|
| Commercial<br>Bank | Digital Financial<br>Service Provider | Cooperatives | Family /<br>Friends | Informal lender | Access to a Bank<br>Account |
| 0                  | -8.89                                 | -4.26        | 1.11***             | 0.00            | 16.7                        |
| Savings Manage     | ement                                 |              |                     |                 |                             |
| Commercial<br>Bank | Digital Financial<br>Service Provider | Cooperatives | Family /<br>Friends | Informal lender |                             |
| 8.33               | 2.08                                  | 4.26         | 5.76                | 2.13            |                             |

#### GROUP COLLECTIVE AGENCY - Percentage change in the probability of members having a STRONG perception about cooperative dynamics (%)

| Members<br>agreeing<br>together on new<br>goals | Members giving<br>their opinion on<br>setting new goals | Members giving their<br>opinion on how<br>achieving goals | Members<br>cooperating for<br>achieving goals | Progress of the<br>cooperative to<br>achieve goals | Motivation of the<br>members to<br>cooperate | Mutual help among<br>members to recover<br>from obstacles |  |
|---|---|---|---|--|--|---|--|
| 2.17  | 13.6  | 13.6  | 6.98  | 9.09   | 11.6   | 15.9  |  |

# SEXUAL HOSTILITY -Percentage change in the probability of NEVER experienced / perception of NEVER experiencing the following (%) In the workplace, NEVER have experienced:

| Treated as<br>inferior because<br>of Gender | Sexual comments<br>/ jokes / stories | Comments on people<br>not suitable for their<br>work because of their<br>gender | Gossip or<br>rumors about<br>your sexuality,<br>sex life | Unwanted attempts<br>for dating or sexual<br>relationship despite<br>efforts to discourage | <sup>D</sup> hysical contact in<br>a sexual way<br>without consent | Offer of job benefits<br>with expectation of<br>sexual favors | Sexual propositions | Fear because of<br>threats of getting fired<br>for refusing to have<br>sexual relations |
|---|--------------------------------------|---|--|--|--|---|---------------------|---|
| -4.17                                       | -4.26                                | -14.9   | 12.8   | -2.13  | 6.25   | 0   | -10.4               | 10.4  |
| Perception of peop                          | le of your same sex                  | and age NEVER experi  | iencing:   |  |  |   |                     |   |
| Treated as<br>inferior because<br>of Gender | Sexual comments<br>/ jokes / stories | Comments on people<br>not suitable for their<br>work because of their<br>gender | Gossip or<br>rumors about<br>sexuality or sex<br>life    | Unwanted attempts<br>for dating or sexual<br>relationship despite<br>efforts to discourage | Physical contact in<br>a sexual way<br>without consent             | Offer of job benefits<br>with expectation of<br>sexual favors | Sexual propositions | Fear because of<br>threats of getting fired<br>for refusing to have<br>sexual relations |
| -19.1                                       | -8.7                                 | -10.9   | 6.38   | 12.5   | 4.17   | 0   | -2.08               | -6.25   |

SEXUAL VIOLENCE -Percentage change in the opinion regarding whether a husband is justified in using physical violence in specific situations (%)

| If leaving without telling? | If neglecting children? | If it burns the food? | if arguing with him? | Engaging in new<br>income- activities<br>without consent? | If refusing to have sex with him? | If talking to other<br>men in the<br>community? |
|-----------------------------|-------------------------|-----------------------|----------------------|---|-----------------------------------|---|
| 2.13                        | 29.8***                 | 4.17                  | 6.25                 | 6.38  | 10.6                              | 4.17  |

#### TIME ALLOCATION - Impact on the number of hours allocated by activity (hours)

| Resting      | Domestic Work             | Cooking                 | Childcare            | Adult care | Agricultural<br>work (grains) | Training/meetings about agriculture | Animal<br>husbandry |
|--------------|---------------------------|-------------------------|----------------------|------------|-------------------------------|-------------------------------------|---------------------|
| -0.417       | 0.250                     | -1.750**                | 0.0417               | 0          | 1.083                         | 0                                   | -0.417              |
| Horticulture | Working as an<br>employee | Working own<br>business | Social<br>Activities | Eating     | School                        | Household care                      | Agriculture         |
| -0.0833      | 0.167                     | -0.208                  | 0.708*               | -0.458     | 0.208                         | -1.458                              | 1.083               |

Note. Asterisks denote statistical significance at confidence interval of 99% (\*\*\*), 95% (\*\*) and 90% (\*), respectively.