

# Rotary Peace Fellowship Cohort 2 Social Change Initiative, 2021-2022 Teresa Labriola Denmark

**Title**: Female empowerment through coffee production

**Location**: Meru, Kenya

**Start and Completion Date**: January 2022 and September 2022 **Abstract / Summary**:

It has long been recognized that women's empowerment is a precondition for sustained economic development and poverty reduction; and that it is inexorably linked to social transformation. Focusing here on achieving Sustainable Development Goal 5: “achieve gender equality and empower all girls and women”, this design encompassed resources, agency, and transformational achievements for 200+ female coffee farmers.

Through collaboration with local chiefs, a former self-help group turned foundation and a willing private coffee buyer, I address the need for joint efforts to make female coffee farmers agents of change in their communities. The need for female-lead enterprise not only affects the human capital investments, but hopefully also positively the climate actions needed.

To aid the implemented and completed farming training, this initiative developed a Farm Assessment Tool in collaboration with the agronomists and coffee technicians. This tool is not meant for control, but as a single estate tracking tool that provides specialized farm guidance and enables correct follow up and help throughout the year. By improving farm outputs, the goal is to increase payments above the World Bank's poverty line and strengthen household wealth, which is positively associated with empowerment.

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# Introduction & Background

This report describes a multi-stage Social Change Initiative (SCI) which is process-focused over product-focused, and is initiated, implemented, and conducted during the Rotary Peace Fellowship of 2021-2022 – however not finalized due to the nature of the design.

Climate change and small-scale business are becoming more intertwined, and with the development of the Sustainable Development Goals (SDG’s) businesses also carry a larger responsibility towards sustainability.

This SCI addresses not only small-scale farming, but encompasses household economy, gender justice and human rights. This means a social change initiative that looks at peace building as development work, and the many facets of peace building include poverty, gender, and patriarchal domination within the chosen coffee industry and access to education – a cross section between private sector, foundations, and the above-mentioned development work.

To support and advance learnings from the SCI design, I am relying on NGUVU Coffee (the coffee buyer) and Ugima Foundation (a former self-help group) to move away from charitybased development to business-driven development, as crucial step in creating dignity, empowerment, and systematic change. This SCI focuses on implementing a farm assessment tool (appendix 2) to establish a path towards climate actions, while supporting the farmers along the way, resulting in better quality coffee cherries and therefore a higher price per kilogram for the farmers – hence linking climate actions (in small steps) to better business.

The target for this initiative, are the 150 women (headcount at the end of 2021) who are collaborating with Ugima Foundation and NGUVU Coffee in Meru County, Kenya, along with those who will graduate during 2022.

There are many topics to choose from for a SCI, but keeping the timeframe in mind, it is important that the SCI can be designed, implemented, and evaluated within 6 months:

Target

group: women

Where: Meru, Kenya

Multi layered, long

-

term changes,

focusing on the

process of

development within

small scale farming

and climate change.

This SCI will

develop a farm

assessment tool to

improve each farm,

increasing the

quality and quantity.

Aiming for better

susta

inability =

better pay

Timeframe: 6 months

Privat sector: NGUVU Coffee

*Figure 1: SCI framework*

To establish the grounds for the SCI, the site, partners, and participants were visited in September 2021 and the project was started in January 2022.

*Figure*

*2*

 *SCI*

*:*

*Timeline*

Sep 2021:

-

Site visit

-

Needs assessment

-

Local consent and

buying

-

Design

-

Budget

Feb 2022:

-

Survey questions

-

Basic data

-

First FaPA

-

Training ending

May 2022:

-

Second FaPA

-

Impact

registration

SCI

Kenya has an abundance of coffee farmers and 70% of Kenyan coffee is produced by smallholders, while the sector employs about 6,000,000 people directly and indirectly. An estimated 800,000 growers, mainly smallholder farmers, are involved in coffee growing (Solidaridad, 2022). Almost no small-scale coffee farmers can solely depend on coffee farming for their livelihood and must engage in diversified farming practices to earn a living. The challenges are even harder if you are a woman (Njeru, N., 2021). While women’s agency and impact in farming has increased for the better, over time, women have less access to resources such as land, inputs, information, credit, and training. This in turn reinforces patterns of female disempowerment.

The poverty line defined by The World Bank is 1.9 USD per day (will be revised to 2.15

USD in the fall of 2022) – equaling an annual income of 693.5 USD (World Bank, Factsheet,

2022). Before partnering with NGUVU, the average annual income from coffee is Sh 17.054 (156 USD). Since partnering with NGUVU the women, on average, see a 155% percent increase in price per kilo of coffee cherries. With the higher payment and increase in production they now have an average annual income from coffee of Sh 58.590 (535 USD).

Effective interventions, ideas and practices focus on all levels of society to include relevant stakeholders, supported by appropriate policies and practices to implement them. Therefore, this SCI does not work with the community solely, but includes the community chief, local organizations and private sector coffee buyers – while developing partnership policies and practical tools to bring women above the poverty line by investing into small-scale farms.

# Statement of Problem

Women in some African societies are not enabled through empowerment – this has also been observed in Kenya (Women’s Empowerment Index, 2020). The lack of empowerment stems from lack of formal education, lack of income, unemployment, and lack of ownership of property – especially land (Mbugua, S., 2020). These factors are reinforced, upheld by the strong patriarchal structure of most African societies.

As a result, women have struggled for equality and equity, they have suffered domestic violence (according to OECD 41,8% has experienced violence against women in 2021 in Kenya (OECD, Gender Equality)), and they have been disadvantaged in the inheritance of property – this has kept women lagging in social, economic, and political settings.

Problems I observed in preparation for this report:

* Families living below poverty line
* A power imbalance between the commercial buyer and the grower:
	+ corruption from coffee buyers
	+ the inability for women to invest into their farms when payments are lagging behind, by as much as a full year
* Women without formal education
* Women undereducated in farming
* Lack of farming inputs
* Climate change affecting water supply and production

In Kenya women are traditionally not allowed to own land or property, and to this day many cultivate family land rather than their own. Coffee production was introduced to Kenya in 1893 (Kikwetu, 2021), but has been deprioritized for cash crops such as bananas, mangos, beans, and avocados.

Traditionally coffee is purchased through a coffee corporation and taken to the coffee exchange to be sold, often without payment up until a year later.

Female coffee farmers are investing time and energy into farming but are not equipped with the necessary skills or tools to increase their earnings and access market economies and are failing to cultivate maximum yields for their work.

# Goals & Objectives

The goal is to show the interconnectedness of addressing farming difficulties by creating a sound business environment and financial security as a parameter for peace. The objectives are to create a path of growth for women farmers in Meru, Kenya – specifically by asking the women what their needs are, providing training, and following the improvements through Farm Productivity Assessments and evaluating further needs. In 2022/2023 the activities will hopefully lead to better quality coffee cherries, therefore higher earnings per farm and empowerment of the female farmers.

Framed differently as a “Problem and Opportunity Analysis”:

|  |  |
| --- | --- |
| **Problem**  | **Opportunity**  |
| Not organized into groups  | Three groups with team leaders  |
| Individual farms  | Individual farms but all members of Ugima  |
| Family land that can be taken away  | Documentation of females right to the land  |
| No training  | Three months farm training and assessment  |
| No water tanks  | Water tanks and cows  |
| No transparency on prices  | Price and payment right after harvest  |
| Each farm tries to buy inputs  | Bulk procurement  |
| Limited expansion  | Plant nursery to grow farms  |

*Figure 3: Problem and Opportunity Analysis*

Firstly, by taking the women seriously as business owners we treat them with respect, as equal partners, and ask for their feedback, their needs, and their wishes.

To avoid family members taking over the farm as it develops or trying to collect the yield, each woman who does not own her land, is assisted in having a formal agreement between her and her family declaring her right to farm the land. Secondly, by training the famers in better farming practices we can improve their production and increase their earnings. The content of the training, which has been in place since 2019, is pruning, input management, mulching, picking and disease management. A graduation is held when a group has completed the training cycle and been present for more than 75% of the training. The training has informed the creation of this SCI, as it has highlighted and identified the need for practical implementation of training, need for transformation farming and farm specific guidance.

By engaging with the women and responding to their requests for cows (for manure), water tanks and seedlings to grow their farms, we are creating active participation, respect and empowerment. By providing individual guidance for each farm, we help each farmer to do what is best for their farm, keeping track of guidance of improvements and suggestions for each physical farm. Finally, by mapping the farming inputs we can move towards climate friendly farming.

All of these steps enable the female farmers to rise above the poverty line while also caring for the farmland they have access to, providing practical training, conducting farm assessment, and delivering farm specific guidance.

# Challenges & Mitigation Strategies

Women’s economic empowerment is central to gender equality. Studies have shown that putting more money into women’s hands, contrary to men, is the “smart” thing to do (OECD, n.d.). Indicating that women invest their money into their families and communities, as we will see in the literature review, are the foundation of strong societies. However, local buy-in and willingness to support women business owners depends largely on the tribal attitude and structures around genders.

Secondly, obtaining support for a non-charity-based model has also turned out to be a problem, due to Kenya’s relationship with foreign aid and charity-based development work. As this SCI developed, there were focus group discussions on why I did not donate the entire budget directly to the women, but required their participation in training.

Understanding that the ideal outcome was not a here-and-now payout, but a long-term change leading to higher earnings, was a topic of several conversations.

Thirdly, changing farming methods, which have often been passed from family member to family member, is challenging a social structure requiring farmers to care for the environment and to combat climate change. As these are all single estate farmers, the farmland is affected by the farming practices from surrounding farmers. E.g., avoiding chemicals may be done on one farm, but the neighboring farm may be spraying, leading to chemical tracing on the first farm. It can take two or three harvests to detect changes in the coffee cherries and their quality, however farming practices have been baselined and evaluated through the tool.

The expected short-term results are for the women to graduate designed training, for the tool to provide a baseline, and for improvements to happen between baseline survey and second assessment-score. I expect the women to provide participatory feedback on what they need for their farms, so that the long-term climate steps can be designed and for them to become agents of change within their community.

Due to the nature of this multi-level initiative, the impact is not just improvement of the targeted women, but at the community level – a transformative experience for small-scale sound business environments where demand aggregation helps everyone involved.

The output is the result of the activities, and for this SCI; the continuous tracking of farm improvements and a farm input calculation to take the next step for the whole group of farmers.

Outcome is the added value for the target group, both women and Ugima Foundation, which here is transparency of needs, a joint effort to improve everyone further than we can individually. For women empowerment and support by both SCI and a buyer, that they are independent, smart, and able businesswomen who can benefit the entire household with the aim of getting above the poverty level.

Business impact of the SCI for NGUVU Coffee is further storytelling of empowerment and action-oriented improvements on the farms, leading to better quality while supporting the climate. Moving actively towards climate focused farms can become a key selling point within the Nordic market, thereby generating bigger purchasing power and more investments into the women. End results, for now and beyond the SCI, are for improvement of household economies, improvement of gender justice and a bigger focus on sustainable farming practices.

# Overview of Literature

In this section I will be framing the SCI’s theoretical underpinning which informs the Theory of Change and the space in which the SCI operates. It is firstly important to recognize that not all conflicts are limited to war or fighting, a physical manifestation of the conflict, but it occurs when there is structural, direct, or cultural violence (Galtung, J., 1969). Further elaborating on how to define conflicts John Burton writes dispute sometimes refers to contestations over matters that are negotiable and contain the elements of compromise, while conflict is about issues that involve deep-rooted human needs (Burton, J., 1990). One of those deep-rooted needs is to take care of your family, have a livelihood, be treated with respect, etc. – also described in article 23 and article 24 of the Universal Declaration of Human Rights (UN, 1948). Rephrased and made tangible in the SDG number 8 (decent work) and number 10 (reduced inequality), however the 17 SDGs are all connected and therefore those two also relate to “no poverty” and “climate action” (UN, 2015).

# A few statistics

When looking specifically at the African continent and Kenya, Africa has the highest gap between average incomes of the top 10% and incomes of the bottom 50% (Chancel, L., Cogneau, D., Gethin, A. & Myczkowski, A. (2019). Average incomes of the top 10% are about 30 times higher than those of the bottom 50% (Chancel, L., Cogneau, D., Gethin, A. & Myczkowski, A., 2019). Africa's urban population has been growing at a high rate i.e., from about 27% in 1950 to 40% in 2015 and projected to reach 60% by 2050 (UN-DESA, 2014). Kenya’s population growth is estimated to 2.2% by the World Bank (Live Data, found august

2022), the urban population growth is 4.0% in 2021 and the income share held by the lowest 20% of the population is 6.2 (data from 2015) (World Bank, Country Profile). As of 2015, the agricultural sector provides about 80% of total employment and supports over 80% of the rural population (World Bank Group, Climate Risk Country Profile 2021, p. 14)

# Household economy

Kenya’s gross domestic product (GDP) per capita is USD 2006,8 (2021 data) (World Bank,

Live Data) which is USD 1313,3 USD higher than the annual income of the farmers in this SCI. According to Climate Home News “*the Federation of Women Lawyers (FIDA) says women head about 32% of households in Kenya, but individually hold only 1% of land titles. In 2018, an analysis by the Kenya Land Alliance found that out of the one million title deeds issued by the Kenyan government between 2013-2017, only 103,043 were given to women''* (Mbugua, S., 2020). Although they have the right to own land by law, obtaining the land is much harder. Interestingly The Organisation for Economic Co-operation and Development (OECD) states that if women participate in the economy identically to men, the annual GDP will increase up to 26% in 2025, with highest potential in developing countries (OECD, Women’s Economic Empowerment, n.d.). The complexity and interconnectedness of gender rights and development begs the question of does women’s rights affect development or does development affect women’s rights.

However, according to Christopher Udry in 1996 “*...plots controlled by women are farmed much less intensively than similar plots within the household controlled by men. The estimates imply that about 6 percent of output is lost because of inefficient factor allocation within the household*” (Urdy, 1996). Meaning there is a conundrum in aiding women to work more and earn more vs. providing the same for male farmers and getting a bigger yield, however following the earnings into the household, we see women spend relatively more on their children and health (Doepke, M. Tertilt, M. & Voena, A., 2012). Meaning women invest more in human capital, which should in turn influence men including their partners more. Looking at studies outside Africa, Fernández (2013) writes: “*theoretical analysis of male regime preferences and growth, when the economy has very low wealth, men do not have much to gain from patriarchy. It is only as capital accumulation takes off that male preferences strongly favor patriarchy. This is later reversed once the economy reaches a critical level of wealth*.” (Fernández, 2013). According to a 2013 study conducted in India, poverty affects cognitive behavior leading to poor decision making which can further perpetuate poverty. The study found “*that the same farmer shows diminished cognitive performance before harvest, when poor, as compared with after harvest, when rich*” (Mani, A., Mullainathan, S., Shafir, E. & Zhao, J., 2013). Poverty not only affects the relation to patriarchy, human capital but also overall decision making.

# Women and climate

Because the SCI is not only about enabling women purchasing power or to balance the relationship in the household, the means to their income is farming, hence the importance of addressing climate deterioration is vital. While empowering women, while paying them more, while providing training, there is an underlying need for climate action to sustain both farmers and consumers. According to Vision of Humanity 2021 data, Kenya is ranked 147 out of 178 on ecological threats such as water and food risks (Vision of Humanity, n.d.). According to the World Bank Group, Climate Risk Country Profile 2021 “*temperatures in Kenya are projected to continue rising by 1.7°C by the 2050s and by approximately 3.5°C at the end of the century*.” And the “*increased heat and extreme heat conditions will result in significant implications for human and animal health, agriculture, and ecosystems*” (World Bank Group, Climate Risk Country Profile, p. 9). The report goes on to discuss that the level of climate impact and coping strategies depends on “*socio-economic status, socio-cultural norms, access to resources, poverty as well as gender*”; stating that women and children are more vulnerable to climate changes due to “*access to assets and credit, treatment by formal institutions, which can constrain women’s opportunities, limited access to policy discussions and decision making, and a lack of sex-disaggregated data for policy change*” (World Bank Group, Climate Risk Country Profile, p. 14). It is therefore crucial to invest in female empowerment, access to opportunities, as the effect of climate change will be felt substantially by this group. Sustainability is always multifaceted and here refers to economic sustainability, social sustainability, and climate sustainability (ideally climate improving).

# Climate change and effect on peace

Climate changes have long been known as a risk multiplier and as the temperature changes the extreme conditions have a direct effect on peacekeeping activities. Wang, Q., Hao, M., Helman, D. *et al.* (2022) have produced a comprehensive analysis of the influence of climate variability on armed conflict in Africa. Their findings include that in agricultural communities, the excessive temperatures affect crop development, decreasing productivity, worsening resource competitiveness, income inequality, and exacerbates class tensions. The loss of capital must increase unemployment and economic inequality leading to social conflict and therefore elicit conflict. Interestingly Wang, Q., Hao, M., Helman, D. *et al.*(2022) found a direct correlation between droughts, of which Kenya is experiencing increasingly, and conflict; “*This pattern is particularly significant in agricultural areas, whereas in non-agricultural areas, any form of variation in days of rainfall compared to the year-round average could increase the risk of conflict*.”(Wang, Q., Hao, M., Helman, D. et al., 2022).

# Theoretical Underpinnings

Development plays a role in the inequality between males and females (both positively and negatively), however empowering females can benefit development through investment in human capital. Turning it around development also helps empower women - both cases can be true at the same time. I see the need for empowerment as a human right and that in the flux between the two options a balance needs to be found. Based on Kabeer (1999), I will explore the empowerment framework and linking back to the above “Overview of Literature”.

Other significant factors, as described, influencing female empowerment are access to land resources, climate changes and solutions, political rights, and access to land to name a few. Furthermore, investments into human capital tends to lower infant mortality rates and population density when bringing up education levels and skilled labor forces. Women seem to produce less than men according to one study, and can be viewed as an unutilized resource, but as productivity increases and capital accumulates males seem to favor patriarchy hindering the human capital investment needed for development. On top of all these structural and systematic challenges, comes climate change as a huge risk multiplier, demonstrating the urgency of empowerment and dire change.

# Change Theory

Before starting on the Theory of Change I will illustrate the foundation of the SCI by including Kabeer, N. (1999) framework for understanding female empowerment:

*Figure*

*4*

*:*

*Kabeer Female Empowerment Framework*





**Resources:**

Preconditions of

empowerment



**Achievements**

:

Outcomes



**Agency:**

The process

of exercising

choice

Resources (or preconditions for empowerment) include income, human and social resources that enrich the ability to make choices (Kabeer, N. 1999). Agency (or process of exercising choice) is defined as: “the ability of the woman to define her goals and act upon them, often measured through decision-making power.” Kabeer (1999) argues that the meaning, motivation, and purpose of activity is also important for this domain. Achievements (or outcomes) is defined as: “the extent to which potential is realized and whether it has transformative power” (Kabeer, N. 1999).

Throughout the literature other indicators of female empowerment are legal rights, domestic violence data, age of first intercourse, age at first birth, child survival rate and different definitions of agency. Female empowerment is complex and multidimensionally, but summarized pointily; the possibility people have for living the life they want.

Female empowerment and its facets are interconnected and rigid cycles to break. Combining the literature review and the above framework we can link two aspects together and create the following overlap to address mitigation strategies:

* Create a sound business environment (agency)
* Provide equitable distribution of resources (resources)
* Invest in high level of human capital (achievement)

The ecosystem around female empowerment includes families, the local community, the wider community that all create the context of female empowerment, but all coffee farmers (regardless of gender) can be paid with diminishing returns or late. Indicating that the global stakeholders of buyers, auction places, transport companies and distributors also play a role in upholding the restraints. Examples of cooperatives not paying farmers up front, but long after the coffee is sold, because they themselves are not paid by the buyers until they in turn have sold to consumers – the game of the middlemen and everyone taking a cut.

Summarizing everything that has been addressed so far into a Logical Framework Approach (LFA) Matrix:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **Narrative/ description**  | **Verifiable indicators**  | **Means of verification**  | **Assumptions**  |
| **Goal**  | Organized competences to enhance development   | Ugima organization Community   | Team leaders  |   |
| **Purpose**  | To empower women with skills and capacity to do: - build a business - reinvest into the farms - increase production  | Number of women able to compete and meaningfully engage in producing high quality coffee in Kenya   | Records of the women groups, with clear outputs related to their improved capacity  | Women in the coffee industry in Kenya will not be deterred by the socio-economic and cultural stereotypes in the coffee industry  |
| **Output**  | Well producing female lead farms  | 1.Number of women owned coffee farms in Kenya 2. Amount of coffee produced by womenowned farms in Kenya   | Farms records showing quality coffee outputs for local and export markets   | The business environment, as well as the coffee market locally and internationally will favor women.   |
| **Activities**  | Training, assessments  | Graduations, FaPA score  | Training records  | Women will be keen and interested in undergoing training in the coffee trade.   |

*Figure 5: Logical Framework Approach Matrix*

Based on the above two analysis, the “Theory of Change” (ToC) of this SCI is indicated:



*Figure 6: Theory of Change*

This Theory of Change illustration was made at the very beginning of the design and SCI process as an alignment tool between me, NGUVU and Ugima. It gradually became the primary document referring to trying to ensure all activities aligned with all three parties involved. Moving from the top left-hand corner and moving along the line, the reader is presented to the inputs, outputs, intermediate outcomes etc. The inputs are, as earlier mentioned, the partnership triangle between the SCI (bringing the private capital), the nonfinancial support and organization of Ugima Foundation and the community in which we operate and thirdly NGUVU coffee who purchases the outcome (better coffee cherries) enabling the women to reach above the current poverty line.

If we train women in coffee production and enable women to sell their coffee to buyers such as NGUVU, we can ensure they market their coffee at a higher international market rate. Then women will have greater financial capacity and will have reduced levels of poverty and can invest further into their farms.

# Methods & Design

A SCI that addresses, and effects, a multi-level system of development, so borrowing from the Ecological System Approach (inspired by Bronfenbrenner, 1979, The Ecology of Human Development) that states human development happens through interactions and where one environmental system cannot stand alone (Neal, J. & Neal, Z. 2013). Mesosystem refers to relationships between microsystems such as family + community + schools, churches, health facilities, and local government. For this SCI that means personal abilities of farmers + who own the farm/family lands + community chief + cooperatives + local organization of Ugima + international relation (buyer, export opportunities) = sustainable coffee business. Originally designed for child development, Neal, J. & Neal, Z.have argued that the systems are not separate but can be viewed more as a network, which supports the way this SCI was designed.

Initially this SCI was designed to enhance the collaboration between Ugima Foundation and

NGUVU Coffee further, although not limited to designs I had done previously. NGUVU Coffee's primary objective is to buy quality coffee for export, secondly to provide the farmers with incentives such as water tanks and cows. In 2019-2020 I designed my first coffee centered project around training of female coffee farmers to help them advance through farm training, however this had limited impact. Boiling down to a competency-based approach and strengthening individuals, a group, and a community to respond to conflict or a problem: lack of education, lack of skill, needs, climate change and so forth. Similarly, The Integrated Approach to Peacebuilding Building (Ricigliano, R. 2003) states that cooperative learning that brings multi-level and multi-dimensional stakeholder competences are necessary for peacebuilding and development. Hence combining farmers, cooperatives, chiefs, self-helpgroups and buys gives me a better chance of success and change. If human rights are at the center of activities that empower people to become agents of peace and development, it seems to work better.

## Project Design

For Measurement & Evaluation of the training, we conducted a benchmark and ensured that all farms must first be assessed to establish farm compliance to the agronomist recommendations and defined criteria in the Farm Assessment Tool. The assessment exercise establishes three categories dependent on level of compliance: Score calculation will be out a total of a possible 100 points fetching from 10 scoring themes/ farm activities.

# Implementation and monitoring

Ugima Foundation is the local, hands-on, day to day partner for NGUVU Coffee, whose sole role is to buy, export and sell Kenya coffee abroad. Any planning must fit into the farming schedule of the female farmers, be aligned with seasonal weather, and ensure that all women have access to training and Farm Assessment Tool. The suggestion is to have the women sign up in groups based on their geographical location, making implementation, and monitoring easier for all involved.

A team of agronomist and coffee technicians have been identified to facilitate the training and farm assessments. Several agronomists are engaged at different stages of the process depending on their experience and expertise. For instance, it is crucial to target agronomists working with organic products manufacturers and companies to capture new emerging technologies in organic farming.

# Evaluation and closeout

Following the training another assessment will show compliance and then from each season. To measure the climate impact, this paper will be looking for changes in disease control, pest control and weed control. As the women move more and more towards organic farming, the SCI should be able to see if a percentage moves from one category to the next.

## Field work

This SCI includes three field work trips besides Ugima Foundations daily work. First one was September 2021, then February 2022 and May 2022. One more field study might be conducted before the end of the Rotary Peace Fellowship program, however after the SCI paper is submitted. On none of the trips were safety or security an area of concern, nor was transport or accommodation. As the farmers live in the same area and are members with Ugima Foundation, the chefs, community elders, and Ugima management have helped appoint geographical team leaders so that each member has a team leader in their closest vicinity.

**Field trip 1**: Evaluation of the first rounds of training pre-COVID, new site survey, needs assessments from farmers (lead by Ugima), farm assessment design and budget (appendix 1) **Field trip 2**: Graduation of new members with new training (adapted training based on field trip 1), evaluation on first farm assessment used for benchmark and collection of baseline information (appendix 2)

**Field trip 3**: Evaluation after second farm assessment, prep for harvest and surveys amongst 117 of the women (appendix 4).

## Surveys

To avoid confusion about who was asking and who was collecting the answers, I decided to ask on behalf of NGUVU with the help of Ugima, and the women were informed that I had formulated the questions (appendix 4). A critical point in my data collection is that not all members can read or write, so all training is done verbally, as are the assessments and surveys. The goal of the survey was to reach as many women as possible and at the same time make sure the questions were translated into Swahili. The answers were noted down and handed to NGUVU’s local partner, Ugima Foundation, with no names visible to keep all answers anonymous. In total 117 active members answered the questions, but I also acknowledge that the data has insecurities, especially concerning:

**Historical data:** it is often difficult to access validated data from before the women joined Ugima and sold to NGUVU. We mostly rely on the women’s own statements. That is why we have insecurities in comparing data from before and after joining.

**Consistent data:** it can be difficult to streamline data intake. At the beginning many of the women reported data covering family land and not only their own small farm.  **Marital status:** around 91 percent of the women in Ugima/NGUVU state that they are singles. But relationships can be complex and it can be difficult to tick the right box in marriage or single. Moreover, the women know that I aim to primarily include single women, which can affect their answers.

# Interventions & Activities

Due to the longevity of this design process, I will be presenting the manner leading up to the SCI firstly, before specifying actions and mitigations.

Step 1: evaluating the training from the 2019-2020 period, based on Ugima feedback and in person conversations with the farmers. While home in Denmark during COVID in 2020 I applied for the Rotary Peace Fellowship with a design in mind: Step 2, providing hands-on in-field training for the farmers to ensure a more practical and useful training program. This was carried out during spring 2021 when I postponed my scholarship to Makerere to the fall of 2021. Even then I decided that the training was not sufficient, if we could not offer individual guidance and track improvements between each harvest. Therefore step 3; the Farm Assessment Tool (appendix 1 & 2) was developed in 2021 between all three parties involved: me, NGUVU and Ugima. Leading to step 4 where we in January 2022 created our first benchmark assessment to have an overall benchmark for all members and to be able to track, not only the groups progress, but the individual farms.

Based on the statement of problem, literature and Theory of Change we will be addressing the interventions and problems for each of the following as steps to empower the female coffee farmers:

* **What investments were done to ensure a high level of human capital?**

Human capital is defined by Vision of Humanity 8 pillars as: “*A skilled human capital base reflects the extent to which societies educate citizens and promote the development of knowledge, thereby improving economic productivity, care for the young, political participation and social capital*” (Vision of Humanity, n.d.). Before starting we asked all the female farmers who were interested if they would join Ugima and sell to NGUVU – for those who said yes, we continued the process. Then women then self-organized into groups based on their geographical location, choosing a day and time suitable for training for the next 6 weeks. The training was conducted by a professional agronomist, local to the area and with coffee experience. The training was specified to fit the target group and covered: how to prune trees, how to cut stems, how to graft, picking techniques, when to fertilize and how much, farm inputs. These skills were then shown practically at different farms to ensure the women had more than one encounter with each topic, hopefully leaving them with more knowledge on how to take care of their land.

The training was driven by lessons learned and best practices from surrounding cooperatives and farms, along with scientific data. For those who did not read or write we made everything in person training and provided extra lessons for those who needed it. The goal was to place the women in charge of their own training and ensure they had every opportunity to gain knowledge that could promote them further. Those who provide for children or grandchildren, we asked if they could be supported through school if NGUVU paid 10% more than other buyers, again hoping to make a lasting investment into human capital.

None of the SCI initiatives would work unless we actively facilitate networks that collectively work to solve problems and gain knowledge. Secondly, if we as “outsiders” don’t promote respect for individual differences and needs, while also building trusting relationships all initiatives fail. Ugima Foundation provides incredible coordination and assistance throughout this SCI, as a crucial component is comprehensive and wellcoordination to build critical competencies.

* **How to ensure equitable distribution of resources?**

As mentioned before, we provided notes and hands on exercises, not only as an investment in human capital but to ensure equitable distribution, as not all women can read or write. Not all the farmers have attended school or formal education beyond primary education.” *Peaceful countries tend to ensure equity in access to resources such as education, health and, to a lesser extent, equity in income distribution.*” (Vision of Humanity, n.d.). We asked the women to make land agreements with families. Furthermore, we decided not to allow men (spouses, fathers, brothers, or laborers) to take the training on behalf of the women. This is an initiative for women, and they are in turn free to share their knowledge with anyone they want and help their community implement.

NGUVU provided water tanks and cows to those who needed or couldn’t afford to buy, ensuring cherry payments go towards household economy, children’s education, and farm investments.

#  - How does this create a Sound business environment

”*The strength of economic conditions as well as the formal institutions that support the operation of the private sector. Business competitiveness and economic productivity are both associated with the most peaceful countries and are key to a robust business environment*.” (Vision of Humanity, n.d.). Keying in on business competitiveness and economic productivity as indicators and goals for this initiative. The women are unable to create competitiveness if they are 1) unable to invest 2) don’t have direct buyers; both items we removed. The economic productivity is the vital part of this SCI and by mapping out farm’s needs, helping them increase productivity the economic productivity will follow. To include all stakeholders to create this “sound business environment” we requested permission to teach at the local chief office, we further contracted potential donors and funders to help reach the next step. To increase participation, involvement, and feedback, we conducted a survey amongst 117 women to ask about their feelings, learnings and needs.

#  - Incorporating climate farming

As mentioned earlier, unless we future climate change and set in preventives measures the target group will hit harder than others. Agriculture will be hit harder with conflicts as well, so it is imperative that every initiative has a climate consideration or plan attached. Firstly, we asked the professional agronomists to aid us in designing the Farm Productivity

Assessment and asked collaborators to verify our criteria before rolling it out. Both Ugima, a coffee technician and an agronomist visit every farm to 1) make the women feel comfortable, 2) explain the criteria and answer questions and 3) understand what is needed to move towards climate friendly farming. The assessments will be conducted biannually, in between each harvest. Investing in water storage and cows for manure and composting are also part of the climate attention of the partnership.

 - **How to measure female empowerment?**

For any initiative we must consider measure and evaluation outside the main activities. We must measure towards the goal and purpose. Linking back to the SDG’s and nr 5 “achieving gender equality and empowerment of all women and girls”, we look to the Women’s Empowerment Index (WEI) made by the Kenyan Government we see that less than one third are consider empowered and older women are often less empowered than younger women (Women’s Empowerment Index, 2020). Our average female participant is 50, so often an under-empowered group. The active step taken here are:

* Enhancing equality and equitable opportunities for development through skill training.
* Advancing human professional development.
* Maximizing engagement and involvement/participation from all stakeholders. o Programs to build relationships and trust.

In the future, based on feedback from the newest assessment, tying in training and assessments, the farmers have asked specifically for climate friendly farm inputs to ensure a cohesive usage and deployment of pesticides, fertilizers, and minerals (appendix 3). The farmers themselves have suggested a load-based demand-aggregation where Ugima and NGUVU purchase and distribute the inputs to improve the farms, and the farmers pay off the inputs following harvest season.

# Key Findings & Impact

This SCI developed an existing partnership to enhance the focus on female empowerment through sound business and start to incorporate climate-oriented farming. My contribution has been 1) the design, 2) setting a direction for a private/NGO partnership, 3) putting climate on their agendas. During this SCI I have seen the following results based on interventions:

* 70+ farmers have graduated since 2021 making the total group 215 women.
* Bigger focus on agro and regenerative farming practices both in training and assessments.
* Bases line data and evaluation methods developed to ensure knowledge retention.
* Bigger engagement from the women themselves through surveys.
* SCI was awarded SDG price at Folkemødet in Denmark in summer of 2022.
* Farmers outside NGUVU/Ugima have started asking their cooperatives for coffee specific training.
* Input calculations and design made (currently looking for funding).

Now this is a long list for a 6-month project, but the truth is the project design started at the application for the Rotary Peace Fellowship and it will continue after: it is a slow boat to change the focus and perspectives of a partnership, but once it is redirected the changes will start to happen. Some unintended consequences have been that other cooperatives have now increased their prices and started offering training by an agronomist.

I have also seen a change in both Ugima Foundation and NGUVU coffee: the latter is now taking more responsibility for their coffee supply chain, looking into composting and the surrounding effects of their coffee production. Ugima Foundation had learned a lot about data collection and accountability leading to transparency and a stronger partnership with buys. Along with these changes NGUVU coffee have stopped providing scholarships for the children of the coffee suppliers but are using the funding for farm improvement and response to farmer’s needs, so that the women can invest more into their farms, receive a higher pay, and hopefully send their children to school. The partnership is starting to see the women as coffee farm experts, helping neighbors, we are seeing newer farming practices being implemented and better yields coming forward after each harvest. When we see women gaining rights to land, they are increasing the household economy and their families are becoming more supportive of their endeavors.

# Training results

The females who have been trained and are currently selling to NGUVU is 215, however over the course of the years more than 300 women have participated. However not everyone has wanted to continue with the training, participated in enough training to graduate or wants to sell to NGUVU. They have all been supported in their decisions.

# Farm Productivity Assessment results

In January 2022 (field trip 2) we had an average assessment score of 44.04 amongst the 215 women and the ten categories. When visiting the same 215 farms in April 2022 (just before field trip 3) the average assessment score had increased to 45.47 points; an increase of 1,43 points. This latter measurement is now the minimum goal for all farmers with about 94 of them currently scoring lower. By reaching 45.47 they will not be fully organic, climate friendly, but they will be closer than before to utilizing their land better and increasing their productivity. NGUVU’s current ratio is 8 kg. wet cherries to 1 kg. quality green bean: over time and as the assessments improve that should move closer to 5,5 or 6 kg. wet cherries to 1 kg. green bean.

# Surveys results

Ugima has agreed to conduct a survey (see appendix 4) amongst the female farmers every other year to ask the women about their achievements and what changes have taken place. The survey is a supplement to direct feedback from team leaders or group meetings. 117 women said:

Received free training hence becoming a better farmer (expanded farming knowledge base) has been a significant change. The increased income has affected their living conditions and household economy shown by increased capacity to buy food.

68% of the women say that they have broadened their network since they joined NGUVU, supporting our mission to expand best practices and collectively work to solve problems and gain knowledge.

Many of the women have said their goal is to increase coffee trees (numbers) at the farm (including renting more land and trees) which is understandable as more trees equals more kilos and therefore higher income. However, the quality of the beans has to coincide with the increased kilos, so the focus is still on providing better trees rather than more trees.

All the women (100%) believe that this program is an accelerator to their development and transformation. They feel being in the group gives them a better chance to realize their dreams. 90% of the women feel that this program is speeding up the changes they need to realize their dreams. 100% believe that NGUVU together with their group can do even more to make them earn even more from their coffee.

# General Conclusion

Due to the time restrictions of this initiative and the COVID-19 pandemic, traveling and conducting surveys have been severely limited – both from a Danish and an East African perspective, COVID-19 has made this year and previous years harder to plan for and to navigate. If circumstances had been different Ugima would have held more group sessions, group meetings for feedback and I would have been more physically present in Kenya. We have adjusted to local regulations and guidance, trying to avoid spreading COVID-19 as some women are in vulnerable groups and the vaccine has not been available to everyone.

Each stakeholder has different perspectives on the success and conclusions of this collaboration, the key takeaways are transparency, accountability and inclusion are absolutely key ingredients in this success and are needed to avoid ultimately undermining local peace and development.

From partners Ugima and NGUVU: they have ultimately found this closer set up and open dialogue for development beneficial. Joining resources and adding structure to their collaboration are aspects they wish to continue both as individual organizations and in partnership. From the women: the added assessments, surveys and feedback sessions are more work. Some have felt more vulnerable as the FaPA pinpoints gaps in implementation, and they are nervous about losing NGUVU as a buyer and the potential economic effects that will have. However, the specialized guidance that comes with the FaPA have been helpful and they are now looking to improve their inputs as they know the requirements for crop maintenance is higher. Feedback from others: husbands and families have expressed frustration for not being included into the partnership. Two of the chiefs that were consulted continue to support the initiatives and partnerships. They have asked Ugima and NGUVU to include more female farmers.

Ideally this SCI would have included more climate-oriented actions of carbon binding, organic permaculture partners, and a case study on how climate-oriented businesses relate to development and peace. The groundwork, baseline structuring and mission have been set in this body of work, and by all accounts with the limited time frame it has been a success. The positive impact of the “Resources, Agency and Achievements” model (illustration from Theory of Change) shows that the increased income is a prerequisite for being empowered, it provides increased agency in the household as well as for the women themselves to decide how the farm, to whom they sell. Their achievements provide them with outcomes for transformation to empowerment as the women themselves can decide what changes they would like to see, be and develop. By making human rights and empowerment the center of activities, the women have become agents of peace and development, while strengthening their communities to work with principles from Vision for Humanity’s eight pillars of peace.

# Recommendations

Firstly, I would like to echo the Women’s Empowerment Index recommendations (2020):

* Use WEI to inform legislative, policy and resources allocation towards gender equality and women's empowerment.
* Enhance coordination of all relevant stakeholders and partners to increase demand and utilization of gender statistics including the WEI.
* Strengthen timeliness of production of WEI and its integration in reporting mechanisms for gender equality and women's empowerment such as Vision 2030 and SDGs.

Without facts, statistics and legislation which create the structural change there will be no significant difference.

Secondly, enforce a dedicated ratio of title deeds be earmarked for women. Use policy, research, and legislative designs to ensure that “old'' agricultural ways of monocultural farming are replaced with clear goals of forestation, soil improvement and carbon binding to increase crop production. Climate change is a substantial risk multiplier so any, and all, policies must consider the climate aspects of initiatives. Ensuring a percentage of all farming land, and a percentage of the country’s overall area, is used for replanting of indigenous vegetation to, will not only combat climate change, also be conflict mitigation but also protect women.

All stakeholders will be continuously reminded that creating the prerequisite of empowerment of women is amongst other economic freedom, that female-lead enterprise shows return on investments on human capital. That everyone has the right to decent work, resources and a sound business ecosystem to reach above the poverty line.

# Sustainability Plan

I would like to move Ugima and NGUVU partnership more towards climate friendly farming, with interventions that fall under regenerative farming. This means understanding the steps needed to make the coffee industry adhere to best practices and giving the soil more than we take, and planting as many trees along the way as possible. The goal is to help all women to reach a total farm assessment score above 44,04 by the end of 2023. Ensuring that both Ugima Foundation, NGUVU Coffee and community support structures are committed to supporting these women, so they can further improve their farms and in the end deliver better coffee beans to increase their household economy.

Firstly, make a new circular model for farm inputs as requested by the women. Based on the input needs for each tree we have calculated how much money it costs to provide every member on each farm with the adequate organic farming inputs for each of their trees. This is no small expenditure, and I am therefore looking in 2022 to raise those funds and make a model in which NGUVU and Ugima Foundation purchases the inputs and distributes them to each member. Through the improved quality and quantity of each farm, the members repay NGUVU and Ugima Foundation for input costs which then fund the bulk purchase (and therefore better price) for the next year – making it a continuous model that can grow along the farms.

Secondly, to further aid the individual farms, start composting all the cherry skin and fruit leftover from the wet mill. Not each member has cows or access to manure, so by providing composting each member can 1) save money 2) improve their farm and therefore their earnings – bringing us one step closer to getting each member above the global poverty line. Actively working towards equitable distribution of resources, I will continuously make sure that the women are up-to-date with new knowledge, methods and tools within coffee farming. Both through farm assessments and new training sessions, but also by using local knowledge, best practices and experts - this has to be a locally owned, operated and developed design.

Finally, there is no female empowerment without mutual trust and respect between stakeholders. Monitoring evaluation, accountability, and learnings from the design will happen through a new survey in 2023, farm assessment scores and group meetings aided by Ugima and local chiefs. All female farmers are free to sell to any buyer they wish, giving them ample opportunity to diversify their market and use the skills learned as they see best fit. To ensure the continuation I implore Ugima and NGUVU to include more women from the community

I would recommend having extensive expertise in circular economy and life cycle assessment to ensure the sustainability of the initiative, while evaluating the ultimate worth and value of the project. Measuring female empowerment is no small feat, so measuring the features that make up empowerment and constantly improving those, should be the measurement of success.

Date: 02. September 2022

Teresa Labriola

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## Appendix Appendix 1: Budget

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Item/** **Activity**  | **Description**  | **Quantity**  | **Unit Cost**  | **Total Cost**  |
|  | **Training**  |
| **Training**  | Farm evaluation form printing  | 200 Pcs  | 10  | 2,000  |
| Farm visits Logistics + lunch  | 12 days  | 5,000  | 60,000  |
| Farm visits agronomists allowance  | 12 days  | 2,500  | 30,000  |
| Classroom sessions/ practical lessons – classroom hire + agronomists allowance  | 28 sessions  | 3,000  | 84,000  |
| Training materials (flipchart,books,pens,printouts)  | 1 set  | 5,000  | 5,000  |
| Hall hire  | 14 sessions  | 2,500  | 35,000  |
| Farmers manual/journal  | 200 booklets  | 250  | 50,000  |
|  | **Subtotal (KES)** |  **266,000**  |
|  | **Subtotal (usd)** |  **2,660**  |
|  | **Nursery (20,000 trees)**  |
| **Seed**  | Certified SL seed 20 Kgs  | 20 Kgs  | 3,000  | 60,000  |
| **Manure**  | Organic goat manure  | 7,000 Kgs  | 15,000  | 15,000  |
| Riversand  | 14,000 Kgs  | 14,000  | 14,000  |
| **Labour**  | Beds preparation  | 10 md  | 1,500  | 15,000  |
| Planting  | 2 md  | 3,000  | 6,000  |
| Watering & Maintenance 3 months  | 3 months  | 8,000  | 24,000  |
|  | **Subtotal (KES)** |  **134,000**  |
|  | **Subtotal (usd)** |  **1,340**  |
|  | **Tanks & Cows**  |
| Tanks  | Purchase and stand construction  | 20  | 40000  | 800,000  |
|  | Purchase of young dairy heifer  | 35  | 40000  | 1,400,000  |
|  | **Subtotal (KES)** |  **2,200,000**  |
|  | **Subtotal (usd)** |  **22,000**  |
|  | **Monitoring and Evaluation**  |
| **M,E&A**  | Monitoring, Evaluation & Administration  | 3 months  | 30,000  | **90**,**000** **(usd 900)**  |
|  | **Total KES** |  **2,690,000**  |
|  |  **Total USD** |  **26,900**  |

## Appendix 2: Farm Assessment Tool

**Category A (Green)** – most compliant strictly adhering to all recommended best practices – to get premium price for their cherry **score of 70% to 100%.**

**Category B (Yellow)** - active, compliant, and committed to be fully compliant. With a genuine strong reason for not being fully compliant. Acceptable under observation and gets a normal price. **Score of 35% to 69%.**

**Category C (Red)** – non-compliant placed on waiting list until minimum threshold is attained. NGUVU will not buy their coffee beans before they show improvement and are able to move up in the yellow category. **Score of 34% and below.**

## Categorization Criteria

The process will look at 10 key areas and award a score out of 100%. The criteria revolve around 4 pillars that are common in most world certification standards.

The scoring will be around the 10 key areas/ themes (farm activities) listed below:

1. Farm governance (Bio-Profile)

Who is in control, who works on the farm and their ages, is there child labor?

How many man hours per week, how much do workers earn?

1. Coffee establishment

Preparation of planting holes, dimensions, filling the holes, spacing, coffee variety, contours during digging holes for planting,

1. Coffee nutrition

Manure application/ fertilizers during planting, macro nutrients application, micronutrients application, watering,

1. Soil Management

Soil testing, soil PH management, soil erosion control, soil conservation initiatives

1. Canopy Management

Pruning (de-suckering), Use of shade

1. Weeds control

Forking, mulching, herbicides, intercropping

1. Disease Control

Farm Hygiene, Use of organic inputs

1. Pest Control

Farm hygiene, Organic control, use of biological plant protection

1. Fruiting and Harvest Estimation

Fruit setting score, Handling and harvesting method for quality assurance

1. Record keeping

Keeping of comprehensive authentic farm operations records, adherence to the spraying calendar

## Appendix 3: Input calculations

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Time of year**  | **Input**  | **Amount pr** **tree**  |  | **Pris pr unit** **(KES)**  |
|   | Twiga Ace  | 0,4 ml  |  | 2  |
| **Sep**  |   |   |  |   |
|   |   |   |  |   |
| **Oct**  | Nitrogen, Phosphorous and Pottasium  | 100 g  |  | 15  |
|   | Manure  | 20 kg  |  | 60  |
| **Nov**  | *Labor (picking)*  |  | 1  |   |
|   | Abbative Copper  | 1,8 ml  |  | 3  |
| **Dec**  |   |   |  |   |
|   | *Labor (de-suckering)*  |  | 1  |   |
| **Jan**  | Twiga Ace  | 0,4 ml  |  | 2  |
|   |   |   |  |   |
| **Feb**  | Agricultural Lime  | 0,5 kg  |  | 7  |
|   |   |   |  |   |
| **Mar**  | AirForce One (pesticide)  | 0,8 ml  |  | 2  |
|   | Bore, Zink  | 4 ml  |  | 3,8  |
| **Apr**  | Nitrogen, Phosphorous and Pottasium  | 150 g  |  | 25  |
|   |   |   |  |   |
| **Maj**  | *Labor (de-suckering)*   |  | 1  |   |
|   | *Labor (picking)*  |  | 1  |   |
| **Jun**  | AirForce One (pesticide)  | 0,8 ml  |  | 2  |
|   | Bore, Zink  | 4 ml  |  | 3,8  |
| **Juli**  |   |   |  |   |
|   |   |   |  |   |
| **Aug**  | *Labor (pruning)*   |  | 1  |   |
|   |   |   |  |   |
|   |   |   |  | **125,6**  |

125,6 KSH times 71.003 trees = 8.917.976,6 KSH **Appendix 4: Surveys**

**Question 1: What is the most significant change in your life since you started selling to NGUVU?**

1. Received free training hence have become better farmer (expanded farming knowledge base).
2. Improved quality of coffee at the farm both new trees and old trees.
3. Timely payment helps farmers to buy inputs and attend to other needs as they can plan.
4. Increased average household income from coffee every season.
5. Better livelihood from the better solar lighting (no longer use kerosene for lighting). Solar use saves significant amount of money for the family.
6. Better livelihood from the tank (does not have to go far to fetch water).
7. Relief from the school fees burden (specific response from family with scholarship).
8. Increased productivity of coffee. ix) Increased exposure to coffee farming through farm visits.

x) Increased reliability/sustainability and a positive attitude towards coffee farming. xi) Enhanced feeling of appreciation and self-esteem from ownership.

**Question 2: Which living conditions have improved?**

1. More income has increased capacity to buy food.
2. More income has increased ability to pay school fees for children. iii) The tank at home makes water available at all times (where there is water).
3. Solar lamps have improved the lighting conditions at home helping children study in the evenings.
4. Scholarships helped to lighten school fees burden.
5. The guarantee by NGUVU of a fair and timely payment helps one to plan and assurance of a livelihood from coffee.
6. Improved reliability on coffee faming.

**Question 3: Have you broadened your network and social relations since you joined NGUVU as a supplier?**

68% of the women says that they have broadened their network since they joined NGUVU.

**Question 4: What is the biggest goal you are working towards?**

90% of the women gave this as their wish-list:

1. Increased coffee trees at the farm (including renting more land and trees).
2. Increased coffee production in kilos per year.
3. To educate children to tertiary level. iv) Improved crop husbandry practices.
4. Access to farm inputs (copper & manure).
5. Access to a NGUVU cow & tank (specific to members who have not received

yet).

**Question 5: Do you feel it is likely to achieve your goals now?**

All the women (100%) believe that this program is an accelerator to their development and transformation. They feel being in the group gives them a better chance to realize their dreams. 90% of the women feel that this program is actually speeding up the changes they need to realize their dreams. 100% believe that NGUVU together with their group can do even more to make them earn even more from their coffee.