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Impact Evaluation of Cash Based Transfers on Food Security and Gender Equality in Kenya



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DIME
TRANSFORM DEVELOPMENT

Baseline Report

May 2024

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The work described in this report is the result of a collaboration between the World Food Programme (WFP) and the World Bank's Development Impact Evaluation (DIME) department. The study has been pre-registered in the AEA RCT registry (AEARCTR0005933). This impact evaluation was pre-registered in the AEA RCT registry (AEARCTR0005933). We are grateful to all individuals who contributed to data collection, and in particular the respondents for their time.

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Overview

The Kenya impact evaluation aims to estimate the impacts of women participating in [Food-Assistance-for-Assets \(FFA\)](#) programming on gender equality, household decision making, and women's social and economic empowerment.

The core functions of FFA include, simultaneously, the direct provision of food or cash-based transfers to meet the consumption needs of the most vulnerable (i.e., short-term access to food) as well as the construction/development of household and community assets that reduce the risk of disaster, strengthen livelihoods, and build resilience over time.

This baseline report presents data from the impact evaluation baseline survey. This data presents the pre-programme baseline situation in the study regions, focusing on primary outcomes and other descriptive variables of interest. The impact evaluation focuses on 20 of the most vulnerable households from each of the 75 communities included, for a total of 1,500 households included in the evaluation survey sample.

The report begins by describing the context in which the programme has been designed (Section 2). This is followed by a discussion on methodology and randomization strategy (Section 3). It then describes the different data sources and tools that were used to collect the baseline data (Section 4) and presents descriptive statistics describing the characteristics of survey respondents, including a balance table (Section 5) broken-out by treatment group and key findings (Section 6). Lastly, the lessons and conclusions are outlined (Section 7).

PROGRAMME SUMMARY

A Gender Action Plan (GAP) was developed by the Gender Office at headquarters to translate the goal of the new gender policy into concrete and measurable actions and accountabilities to be implemented before 2020. The GAP introduces two layers to the path towards reaching Gender Equality and Women's Empowerment (GEWE) and was instrumental in shaping the regional gender strategy; 1) including gender in programme objectives and indicators and 2) including gender in programme processes and organization change. The Gender Policy called for the development of regional implementation strategies to provide Regional Bureaus (RBs) and CO staff with the necessary guidance in pursuing GEWE. The Regional Gender Implementation Strategy developed by the Regional Bureau Nairobi envisions contributing to gender equality and equity in countries assisted by WFP in East and Central Africa, at household, local and national level, through the integration of gender equality, equity and empowerment of disadvantaged population groups into all aspects of its activities. The Regional Bureau of Nairobi is taking up this approach with the objective of providing women and girls with increased power in decision-making regarding food security and nutrition in households, communities and societies. The CO is implementing the FFA intervention as part of Outcome 2 (Activity 3) of its Country Strategic Plan (CSP). One of the CSP's expressed goals is "[through] food assistance for assets, WFP will promote asset creation activities to stimulate early recovery, rebuild livelihoods and reduce long-term vulnerability to food insecurity and malnutrition." In this sense, the programme itself speaks directly to the GAP, the Regional Gender Integration Strategy as well as the Country Strategic Plan. In fact, data collection and analysis in support of GEWE integration in operations is one of the GAP outcomes.

In this context, DIME and WFP are collaborating to understand the impact of participating in WFP programming on women's earnings, time use, consumption, agency, attitudes, perception of norms, and well-being. The programme aims to have vulnerable populations benefit from more sustainable, inclusive food systems and increased resilience to climate shocks to meet food and nutrition needs. The project supports creation of assets and transfer of knowledge, skills and climate risk management tools to support adaptation to climate change, diversified livelihoods and better nutrition. The programme further facilitates access to markets and provides technical expertise in supply chain to promote inclusive commercial food systems and enhance the consumption of safe, nutritious and diversified foods.

The programme envisages that target communities are able to determine, create and utilize productive assets and diversified and sustainable food production systems, receive conditional in kind or cash-based transfers to address immediate food consumption gaps and receive comprehensive package of nutrition interventions including nutrition education and skills transfer, linkages to social protection schemes and essential health and nutrition services including the provision of micronutrient powders to improve their nutrition status. In particular, the project is targeted towards arid lands of Isiolo county with a sub-population of a rural migrant community that is particularly vulnerable to food insecurity.

The programme is constituted of two main components: livelihood activities as well cash-based transfers to the selected beneficiaries. Livelihood programmes are designed to have a range of asset creation activities including developing or contributing to poultry rearing, cleaning riverbeds/irrigation ditches, flood

prevention activities, attending to vegetable gardens, reforestation, road repair, fumigation/pest-control, and communal infrastructure upgrades.

As the community targeted by the programme in Isiolo was a pastoral migrant community that did not engage in agriculture, the programme chose only two kinds of livelihood activities: poultry and pasture. The livelihood activities for poultry involve seven to nine months (one session per month) of training on feeding, egg hatching, poultry care, and extension services such as advice and group monitoring. Similarly, for pasture, the activities planned for three to four months (one session per month) involve training on soil preparation activities, seed provision, seed planting, and extension services including advisory support and group monitoring of their activities¹.

To test measurement and randomization strategies before a full-scale evaluation of the impact of participating in the FFA programme, the Impact Evaluation Team supported the Kenya CO to pilot the intervention in January-February 2020. The pilot phase included joint work with local government and community leadership and, with COVID-19 protocols in place, a phone-based survey with approximately 300 beneficiaries. The pilot was meant to assess the feasibility to conduct phone interviews in the area and to pre-test the survey tool before the large-scale impact evaluation.

After the successful pilot, the scale-up FFA intervention in Kenya in 2022 aims to work with 1,500 households in 75 communities across four wards in Isiolo county (the wards of Garbatulla, Sericho, Chari and Cherab), which present high indicators of food insecurity (as a result of climactic or economic shocks), and will form the basis for the impact evaluation (a timeline is provided in Annex 1 and a more detailed analysis of the evaluation design is provided in Section 8). In the framework of WFP's FFA programming, the goal of the impact evaluation is to test whether equalizing opportunities for men and women to work outside the home contributes to closing the gender gap in autonomy and ultimately improves social and economic empowerment.

¹ The impact evaluation is focused on the impact of targeting women under the livelihoods programme in alignment with the GEWE objectives. The evaluation does not consider the full impact of the FFA programme – such as the gains from asset created under the programme.

WINDOW SUMMARY

The Kenya impact evaluation belongs to the World Food Programme (WFP) Office of Evaluation (OEV) [“Cash Based Transfer and Gender Impact Evaluation Window”](#). This Window is a coordinated portfolio of impact evaluations to measure the impacts of cash transfers on gender equality and women empowerment (GEWE) outcomes across a series of WFP country programmes.

The hypothesis underlying the window’s first [pre-analysis plan](#) is that providing women with opportunities to work outside the home can enhance their agency, and control over financial resources, which in turn may lead to greater social and economic empowerment.

In this impact evaluation, the expected outcomes of participation in Food-Assistance-for-Assets (FFA) are increasing women’s earnings and shifting women’s time use. The evaluation theory posits that changes in time-use and earnings will subsequently affect perceptions of gender norms, attitudes, agency, consumption patterns, and well-being.

IMPACT EVALUATION QUESTIONS

The main impact evaluation questions are:

1. What is the impact of women’s participation in FFA (working outside the household and receiving cash in return) on their social and economic empowerment?
2. What is the impact of participating in a conditional cash transfer for work programme on women’s social and economic empowerment, as well as on household income and welfare?

The impact evaluation also examines the following secondary question:

1. Does participation in FFA affect key food security outcomes of interest?

BASELINE SURVEY PROCESS

We use a clustered randomized design to estimate credible and unbiased treatment effects. To begin, the WFP Country Office selected 75 communities with high levels of food insecurity (as a result of climatic or economic shocks). Next, the 75 communities were randomly assigned into either one of the two treatment groups or the control group:

- Treatment Group 1: Beneficiaries in this treatment group receive a conditional cash transfer (\$44 per month) disbursed over eight months where the primary female decision maker is registered to work on the asset and receive the transfer.
- Treatment Group 2: Beneficiaries in this treatment group receive a conditional cash transfer (\$44 per month) disbursed over eight months – where the primary male decision maker is registered to work on the asset and receive the transfer.
- Control Group: Beneficiaries in the control group receive a \$44 per month over eight months conditional cash transfer after the endline surveys are completed.

Finally, WFP worked with local community leaders and government officials to identify 20 of the most vulnerable households within each community for a total sample size of 1,500 households.

The baseline multi-module household survey was administered between December 2021 and January 2022 to both male and female heads of households. The survey was reviewed by the WFP country office and extensively piloted with local communities to ensure questions were fully relevant to the context. The duration of the survey was approximately two hours.

During the baseline survey, the security situation in Dadachabasa and Dadachalafey deteriorated, resulting in some sample households vacating and migrating out of the region. However, the numbers were small enough for the team to complete the survey successfully and ensure that the attrition rate did not significantly impact the results. Furthermore, a few errors in the SCOPE registration process were identified and the team worked closely with the CO to rectify them for improved program implementation.

KEY INSIGHTS

This descriptive baseline analysis highlights the potential for women's participation in FFA to generate sustained impacts on households' livelihoods and well-being. First, the data show that targeted households are highly vulnerable. Predicted annual household consumption is US\$776.52 (just US\$0.35 per capita per day). Livestock represents 70% of household income. Approximately 6% of households are categorized as having "poor" food security, while an additional 27% are categorized as showing "borderline" food security. This demonstrates the potential that reliable sources of income (e.g., public works and diversified livelihoods) can have on boosting household resilience.

The report also demonstrates that intrahousehold gender inequality is present. Women heads of household report earning 18% of what male heads of households earn. These lower earnings may be explained by the lack of agency women have with regards to their own time for paid and self-employed work.

Lastly, basic balance checks are consistent with successful implementation of the cross-community randomization, sampling, and the baseline survey itself. This successful implementation is necessary to ensure the impact evaluation will deliver rigorous estimates of the short-run and medium-run impacts of conditional cash-based transfers for men and women's FFA participation on a broad range of outcomes associated with women's economic empowerment and household well-being.

1. Introduction

1. Gender inequality in economic autonomy is pervasive, particularly in developing countries, and its potential welfare implications are concerning². World Economic Forum's (WEF) Global Gender Report for 2022 places Kenya at 57th rank³. While stylised facts point towards a strong link between gender equality in labour market opportunities and gender equality in autonomy, causality is still unclear.

2. The World Food Programme's (WFP) Office of Evaluation (OEV), Cash based Transfers (CBT) Division, and Gender Office partnered with the World Bank's Development Impact Evaluation (DIME) department to create the "Cash Based Transfers and Gender" Impact Evaluation (IE) Window.

3. CBT & Gender Impact Evaluation Window: The CBT and Gender Window aims to understand the impact of CBT interventions targeting women on gender equality and women's empowerment, as well as food and nutrition outcomes. The first round of impact evaluations selected for this window aims to estimate the impacts of increasing women's participation in work outside the household, as a condition of receiving cash-based transfers, and directly receiving a wage (the cash-based transfers) on their social and economic empowerment. The Kenya impact evaluation aims to estimate the impacts of Food Assistance for Assets (FFA) programming targeting women on gender equality, household decision making, and women's social and economic empowerment. The expected outcomes of the intervention are increasing women's earnings and supporting her to alter time-use. The evaluation theory conjects that these outcomes then (in the medium term) impact perceptions of gender norms, attitudes, agency, consumption patterns, and well-being (physical, social, and psychological).

4. The main impact evaluation questions are as follows:

- A. What is the impact of women's participation in FFA (working outside the household and receiving cash in return) on their social and economic empowerment?
- B. What is the impact of a conditional cash transfer to the household on women's social and economic empowerment, as well as on household income and welfare?

The impact evaluation has the following secondary question:

- C. Does participation in FFA affect key food security outcomes of interest?

5. Women and girls are particularly vulnerable to violence and food insecurity. WFP prioritizes their protection in all its activities according to its regional gender strategy and the Kenya country office's gender action plan. It follows that lessons learned from this evaluation can inform these broader programming priorities, which can also contribute to the upcoming Country Strategic Plan (CSP) (2023–2028).

6. The impact evaluation is designed as a Randomized Control Trial (RCT), including a baseline survey before the intervention, a midline survey during the intervention, and an endline survey after the intervention.

7. This baseline report presents data from the baseline survey to inform about the pre-programme situation while looking at primary outcomes as well as other variables of interest. The report begins by describing the evaluation context and programme description (Section 2). The impact evaluation design and randomization strategy are described in Section 3. The report then describes the different data sources and tools that were used to collect the baseline data (Section 4). It presents descriptive statistics describing the characteristics of survey respondents, including a break-out by treatment group in Section 5. Lastly, the outcome variables of interest are described in Section 6. Please refer to the impact evaluation's inception report for further insights and details on the setup and the design⁴.

² Jayachandran, S. (2015). The roots of gender inequality in developing countries. *Annual Review of Economics*, 7(1), 63–88.

³ World Economic Forum, Global Gender Gap Report 2022 [\[link\]](#)

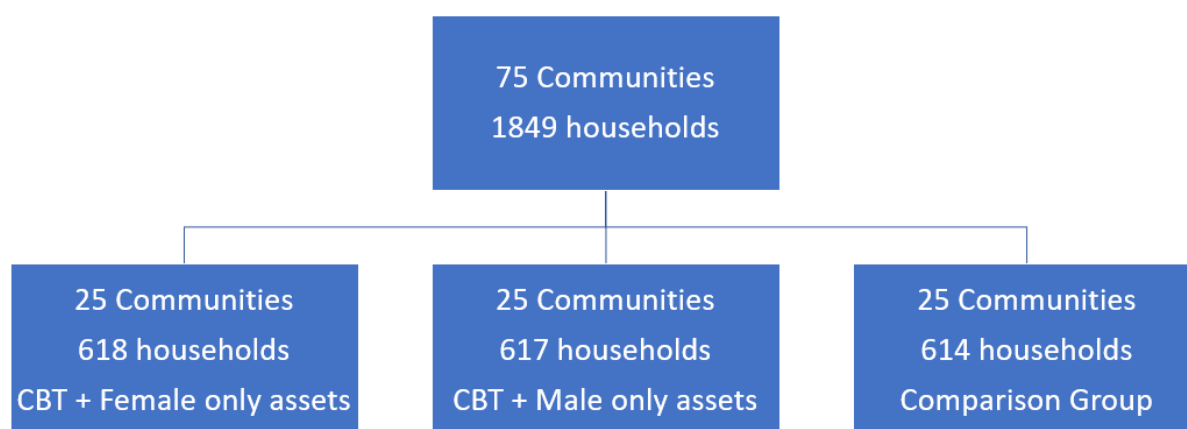
⁴ **DIME-OEV** (2022). Impact evaluation of cash based transfers on gender equality and food security in Kenya: An inception report. Technical report, World Bank Group World Food Programme

2. Impact Evaluation Design and Sampling Strategy

1. To identify the causal impacts of the treatment arms, the impact evaluation employs a clustered randomized control trial (RCT) design (presented in detail in the inception report). To start, the IE Team supports the WFP CO to select 75 communities, so called Project-Sites (PSs). The PSs were selected for inclusion in the impact evaluation sample using the following criteria:
 - a. They have not yet received WFP assistance (i.e., neither CBTs nor Livelihood Assistance training).
 - b. They have high level of vulnerability based on food insecurity, poverty and vulnerability due to climate-related events and the long drought in the Horn of Africa.
2. In a second step, in each community, WFP with local community leaders and government officials to identify 20 of the most vulnerable households within each community for a sample of households. A feature of the clustered randomized controlled trial design is that all selected beneficiary households within a community will receive the same treatment to avoid any “spillover” concerns that might arise from a within community household randomization approach. The household identification process in all 75 communities will be the same regardless of “treatment” assignment to avoid any biases.
3. In a third step, the 75 communities are randomly assigned into either one of the two treatment groups or the comparison group (see Figure 1), producing a clustered randomized design.

2.1 TREATMENT AND COMPARISON GROUPS

Figure 1: Randomization design



4. Details of the two treatment arms and control group are as follows:
 - a. Treatment 1: Beneficiaries in this treatment group receive a cash transfer (approximately \$50 per month) conditional on participating in the livelihoods activities disbursed over approximately 8 months where the primary female decision maker is registered to work or receive training on the asset and collect the transfer.
 - b. Treatment 2: Beneficiaries in this treatment group receive a cash transfer (approximately \$50 per month) conditional on participating in the livelihoods activities disbursed over approximately 8 months – where the primary male decision maker is registered to work or receive the training and collect the transfer.
 - c. Comparison Group: Beneficiaries in the comparison group receive a \$50 per month over 8 months cash transfer (approximately) conditional on participating in the livelihoods activities after the endline surveys are completed.

2.2 IMPACT EVALUATION STUDY SAMPLE AND DATA

5. The baseline survey took place in the Isiolo county in Kenya. Isiolo county lies within arid and semi-arid regions of Kenya covering 25,350 square kilometres with an estimated population of 268,002 (Kenya National Bureau of Statistics, Nov 2021). It has 3 main livelihood zones: pastoral, Agro-pastoral and casual waged labour representing 67%, 26% and 7% respectively. It consists of 3 sub-counties namely Isiolo, Garbatulla and Merti. The populations we study are known for their nomadic life, dependent on livestock as their primary source of earnings. We shall discuss the social and economic status of the sample households on the section on demographics (section 4.2.1) and earnings (section 4.2.6) when we discuss the results from the survey.

6. The 75 project sites were selected from Garbatulla Subcounty (Garbatulla and Sericho wards) and Merti Subcounty (Chari and Cherab wards) in Isiolo County by a joint team of WFP and the County Government of Isiolo (County Technical Team or CTT). The Table 1 provides the distribution of sample households in each sub-county. The Joint Team liaised with the CTWG (County Cash Technical Working Group) to map out areas already targeted with CBTs to avoid double dipping. These PS have been selected because many of the communities living there are food insecure but also have potential to improve their resilience through building of community assets. Project Implementation Committees (PIC) for all the 75 sites were also selected by the targeted households. Only households with double headed households (both male and female) were selected and their MPesa was validated for transfers.

Table 1: Sample distribution across sub-counties

Sub-county	Households
Garbatulla	471
Sericho	418
Chari	320
Cherab	640
Total	1,849

2.3 DATA SOURCE AND TOOLS

7. Baseline data was collected in December 2021/January 2022 using a household survey covering outcomes of interest for the CBT&G window and project-specific indicators. The multiple module survey instrument was administered primarily to households with both male and female heads of household. Please refer to the inception report for a more detailed discussion of household inclusion criteria (DIME-OEV, 2022).

8. The baseline survey took place amid the COVID-19 pandemic, which presumably negatively affected the food security and coping strategies of the communities surveyed. The findings should be interpreted in this context.

9. While specific outcomes are discussed in detail in section 6.0.1, the main outcome categories of interest for the impact evaluation are as follows:

Table 2: Indicators

Indicators
Food Security
Coping Strategies
Financial Outcomes
Earnings
Consumption
Time-use
Agency
Attitudes
Perception of Norms
Well-being

10. The baseline data describes the socio-economic background of the respondents from the target population, as well as baseline data on intermediary and final outcomes of interest. As we are collecting data on both final outcomes as well as intermediary outcomes, we can expect to see some connections highlighting the potential mechanisms of impact. Such connections and their implications for future results will be discussed in the results section.

11. The questionnaire was developed with inputs from the WFP Country Office and extensively piloted with local communities in Kenya to ensure questions were fully relevant to the context. The duration of the baseline survey was approximately 2 hours. Data collection was conducted using Android tablets running the SurveyCTO data collection software. The evaluation team formulated extensive protocols to guide data collection for the enumerator teams. A two-week enumerator training was conducted in a classroom and also included field pilots. During the data collection, high-frequency consistency and performance quality checks were conducted on a daily basis. These checks included flagging missing observations, duplicate observations, unusual survey duration, unusual number of “no-consent” responses, and other inconsistent patterns in the data. Any anomalies detected through this process were flagged to the data collection team immediately for correction. To ensure that data collection met the highest data quality standards, the team also performed a set of audio checks. This refers to drawing a random 10 percent sample of households and see if the interviews were correctly administered and protocols were abided. Cross-checking the data allowed us to provide immediate feedback to the field teams in case of divergences or other problems.

2.3.1 BASELINE DATA COLLECTION CHALLENGES

12. At the time of conducting the baseline survey, the security situation in Dadachabasa, Eldera and Dadachalafey deteriorated. While safety of the team was ensured and planned activities were completed, some of the sample households had vacated and migrated out of the region as a result of the security concerns. Some of the areas in Garbatulla were inaccessible at the time of the survey due to floods and inundation. This resulted in the team not being able to reach a few sample households. However, the survey was completed successfully as the attrition was low thus ensuring no impact on the results., the attrition numbers were small enough to complete the survey successfully and ensure no impact on the results.

13. Additionally, a few errors in the beneficiary lists were identified at the time of the baseline survey. For instance, it was found that there were some cases where two men from the household were registered instead of one man and one woman. There were other instances where the lists were not updated to ensure previously eligible but currently ineligible households were dropped. The DIME/OEV team worked closely with the CO to identify and correct these errors for better programme implementation. All of these challenges were noted and reported to the CO on a regular basis. Additionally, possible solutions are being worked out to anticipate and overcome these challenges at the time of midline survey.

3. Baseline Balance and Descriptive Statistics

3.1 BALANCE OF BASELINE OUTCOMES ACROSS TREATMENT GROUPS

1. As the assignment of the sample was randomized across three groups, and sampling for the baseline survey was conducted before the randomization, households across the three groups should be comparable on both observable and unobservable characteristics at the time of the baseline (this can be seen in the balance table).

2. Figures 2 and 3 present a "balance table" comparing the means of the three groups for key outcomes of interest. T-tests are conducted to identify any statistically significant differences between these. A few differences are significant in the table. The food consumption score variable, for instance is significant for the column that compares the standard treatment group (treatment 2) with the control group at the 10% level. The variable agency over men's time use also comes up as significant at the 5% level for the comparison between standard treatment and control, and at the 10% level for the comparison between female-only treatment group and control group. The women's attitudes towards time use variable is significant at the 5% level when comparing the control group with the standard treatment group, and at the 10% level for the comparison between female-only group and the standard treatment group. Both women's perception of norms and men's perception of norms are significant at the 10% level when comparing the standard treatment group with the control group. Women's perception of norms towards agency over women's time use is significant at the 5% level for both comparisons between standard treatment group and control group and female-only treatment group and control group. Men's perception of norms towards agency over women's time use is significant at the 5% level for the comparison between female-only treatment group and the control group. Lastly, women's perception of norms of attitudes towards agency over women's time use is significant at the 5% level for the comparison between the standard treatment group and the control group and 1% level for the comparison between female-only treatment group and control group.

3. Given that assignment was randomized, we believe the differences between groups are likely spurious. We will test the robustness of our results in midline and endline analysis, including controls for baseline variables that are significantly different between groups.

Figure 2: Baseline balance – 1

Variable	(1) Control		(2) Standard		(3) Female Only		(1)-(2)	T-test Difference	
	N/[Clusters]	Mean/SD	N/[Clusters]	Mean/SD	N/[Clusters]	Mean/SD		(1)-(3)	(2)-(3)
Food Consumption Score (0 to 112)	610 [25]	48.074 (34.415)	618 [25]	44.410 (41.519)	616 [25]	44.520 (41.916)	3.664*	3.553	-0.110
Used a Livelihood Coping Mechanism	614 [25]	0.866 (0.477)	618 [25]	0.890 (0.493)	617 [25]	0.877 (0.735)	-0.024	-0.010	0.013
Yearly Female HoH Earnings (2019 PPP USD)	614 [25]	62.219 (245.272)	618 [25]	47.672 (388.750)	617 [25]	54.741 (340.801)	14.547	7.478	-7.069
Yearly Male HoH Earnings (2019 PPP USD)	614 [25]	288.293 (814.697)	618 [25]	287.399 (1004.359)	617 [25]	269.450 (807.929)	0.893	18.843	17.949
Predicted Consumption (2019 PPP USD)	614 [25]	825.316 (945.834)	615 [25]	774.605 (1227.005)	617 [25]	729.873 (1125.086)	50.711	95.444	44.733
Time Spent Outside of Home (Hours / Day)	614 [25]	3.543 (4.947)	617 [25]	3.718 (6.008)	617 [25]	3.489 (4.992)	-0.174	0.055	0.229
Time Spent doing Self-Employed Work (Hours / Day)	614 [25]	0.370 (2.274)	617 [25]	0.300 (2.069)	617 [25]	0.454 (3.369)	0.071	-0.084	-0.155
Time Spent Doing HH Agricultural Work (Hours / Day)	614 [25]	0.410 (1.723)	617 [25]	0.408 (2.428)	617 [25]	0.601 (2.688)	0.002	-0.191	-0.193
Time Spent Doing Paid Work (Hours / Day)	614 [25]	0.137 (1.161)	617 [25]	0.141 (1.584)	617 [25]	0.199 (1.365)	-0.004	-0.062	-0.058
Time Spent Doing Chores (Hours / Day)	614 [25]	8.213 (5.159)	617 [25]	8.517 (5.799)	617 [25]	8.129 (6.044)	-0.303	0.084	0.388
PHQ-9 Score (0 to 27)	614 [25]	2.775 (5.237)	618 [25]	3.078 (7.553)	617 [25]	3.326 (7.009)	-0.302	-0.551	-0.248
Life Satisfaction Score (5 to 35)	614 [25]	16.265 (17.181)	618 [25]	14.573 (23.586)	617 [25]	14.760 (21.104)	1.693	1.505	-0.187

Notes: The value displayed for t-tests are the differences in the means across the groups. Standard deviations are clustered at variable villageid. ***, **, and * indicate significance at the 1, 5, and 10 percent critical level.

Figure 3: Baseline balance – 2

Variable	(1) Control		(2) Standard		(3) Female Only		(1)-(2)	T-test Difference	
	N/[Clusters]	Mean/SD	N/[Clusters]	Mean/SD	N/[Clusters]	Mean/SD		(1)-(3)	(2)-(3)
Agency over Men's Time Use (Index, -1 to 1)	605 [25]	-0.511 (0.769)	595 [25]	-0.605 (0.858)	606 [25]	-0.590 (0.723)	0.094**	0.079*	-0.015
Agency over Women's Time Use (Index, -1 to 1)	605 [25]	0.551 (0.575)	597 [25]	0.528 (0.959)	606 [25]	0.583 (1.012)	0.024	-0.031	-0.055
Agency over Consumption (Index, -1 to 1)	593 [25]	0.033 (0.798)	591 [25]	-0.024 (0.863)	606 [25]	0.018 (1.111)	0.056	0.015	-0.042
Women's Attitudes towards Time Use (Index, -1 to 1)	612 [25]	-0.609 (0.307)	606 [25]	-0.655 (0.328)	612 [25]	-0.610 (0.500)	0.046**	0.001	-0.045*
Men's Attitudes toward Time Use (Index, -1 to 1)	605 [25]	-0.646 (0.364)	605 [25]	-0.665 (0.353)	608 [25]	-0.650 (0.391)	0.019	0.004	-0.015
Women's Attitudes towards Agency over Women's Time Use (Index, -1 to 1)	602 [25]	0.583 (0.552)	598 [25]	0.541 (0.975)	610 [25]	0.599 (1.043)	0.042	-0.015	-0.057
Men's Attitudes towards Agency over Women's Time Use (Index, -1 to 1)	600 [25]	0.448 (0.760)	598 [25]	0.521 (0.796)	603 [25]	0.499 (0.668)	-0.073	-0.051	0.022
Women's PoN towards Time Use (Index, -1 to 1)	612 [25]	-0.667 (0.247)	606 [25]	-0.701 (0.346)	612 [25]	-0.677 (0.282)	0.034*	0.010	-0.024
Men's PoN towards Time Use (Index, -1 to 1)	604 [25]	-0.658 (0.392)	605 [25]	-0.701 (0.417)	608 [25]	-0.686 (0.406)	0.043*	0.028	-0.016
Women's PoN towards Agency over Women's Time Use (Index, -1 to 1)	612 [25]	0.419 (0.965)	606 [25]	0.519 (0.542)	612 [25]	0.527 (0.670)	-0.100**	-0.107**	-0.008
Men's PoN towards Agency over Women's Time Use (Index, -1 to 1)	605 [25]	0.450 (0.897)	605 [25]	0.521 (0.678)	608 [25]	0.551 (0.776)	-0.071	-0.102**	-0.030
Women's PoN of Attitudes towards Time Use (Index, -1 to 1)	612 [25]	-0.668 (0.248)	606 [25]	-0.682 (0.386)	612 [25]	-0.651 (0.412)	0.014	-0.018	-0.031
Women's PoN of Attitudes towards Agency over Women's Time Use (Index, -1 to 1)	612 [25]	0.425 (0.831)	606 [25]	0.519 (0.511)	612 [25]	0.544 (0.635)	-0.093**	-0.119***	-0.025

Notes: The value displayed for t-tests are the differences in the means across the groups. Standard deviations are clustered at variable villageid. ***, **, and * indicate significance at the 1, 5, and 10 percent critical level.

3.2 DESCRIPTIVE STATISTICS

4. In this section of the report, we will describe the various outcome indicators for the impact evaluation’s sample households for all treatment groups. It must be kept in mind that these outcomes have been carefully chosen, guided by the evaluation theory for the given intervention. We expect to follow the sample households after having provided the intervention for all treatment groups.

3.2.1 HOUSEHOLD DEMOGRAPHIC CHARACTERISTICS

5. Due to the impact evaluation’s design and inclusion criteria, all 1,849 included households had a woman and a man in the household who were considered "co-heading" the household. As seen in Table 3, 85% of the female household heads were married, while 8% of them were widowed and 4% were either divorced or separated. The average ages of the female and male household heads were comparable at 40.56 and 42.34 years, respectively. The average years of education of household heads were starkly different with 3 years for males and 1.5 years for females. Additionally, the average household size was 6 members, with an average of 3.5 children under the age of 18 years per household.

Table 3: Demographics

	Mean	Standard Deviation	N
Panel A: Female Head of Household			
Age	40.56	13.69	1,849
Years of Education	1.66	3.12	1,849
Panel B: Male Head of Household			
Age	42.34	15.05	1,837
Years of Education	3.27	4.47	1,837
Panel C: Household			
Household Size	6.25	2.04	1,849
Number of Children (< 18)	3.5	1.86	1,849
<i>Female Head of Household – Marital Status</i>			
Single	0.03	0.16	1,848
Married	0.85	0.35	1,848
Civil Union	0	0	1,848
Divorced / Separated	0.04	0.2	1,848
Widowed	0.08	0.27	1,848
Other	0	0	1,848
<p>Note for this table and every table below: categorical variables are displayed as 'yes/no' variables where a respondent answering 'yes' ascribes a value of 1, and 'no' a value of 0. Thus, the mean value displayed here represents the proportion of the sample that belongs in a given category. e.g. from the table above, we can see that 85% of the sampled Female Heads of Household are married. The standard deviation is a measure of dispersion around the mean. A low standard deviation indicates that the values of the variable tend to be close to the mean, while the opposite is true for a high value. N refers to the number of households for which the corresponding question was answered.</p>			

3.2.2 FOOD SECURITY

6. Food security and nutrition are primary outcome areas for the CBT&G window as well as the programme team due to their immediate and long-term impact on household welfare. The main indicator included is the Food Consumption Score (FCS), which represents households' caloric availability, dietary diversity, and relative nutritional values of food groups consumed. Table 4 summarizes the results of this outcome.

7. This indicator categorizes households as experiencing varying degrees of food security (poor, borderline, or acceptable) based on usual household diet. The majority of the sample – 67% of households – had acceptable consumption level, while 27% of the households had borderline status, and 6% had poor food security status.

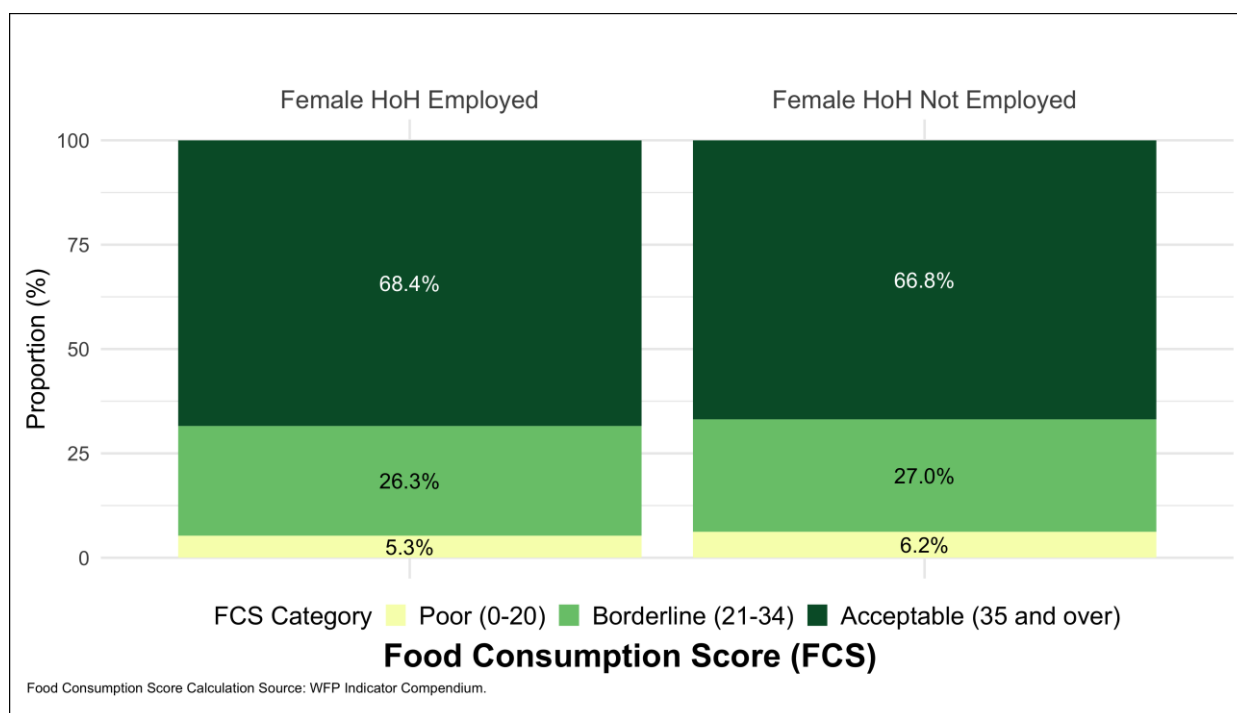
8. As shown in Figure 4, there was no difference in FCS outcomes between households in which the female head of the household was employed compared to those where she was not.

Table 4: Food security

	Mean	Standard Deviation	N
<i>Food Consumption Score - Category</i>			
Poor (0-20)	0.06	0.24	1,844
Borderline (21-34)	0.27	0.44	1,844
Acceptable (35 and over)	0.67	0.47	1,844

Food Consumption Score (FCS) ranges from 0 to 112. Categories used for FCS: Cereals, grains, roots, and tubers; Legumes/nuts; Milk and other dairy products; Meat, fish, and eggs; Vegetables and leaves; Fruits; Oil/fat/butter; Sugar.

Figure 4: Food consumption score



3.2.3 COPING STRATEGIES

22. The livelihoods-based coping strategies for essential needs (LCS) module is used to better understand the longer-term coping capacities of households. These strategies help assess households' long-term coping and productive capacities and their future impact on access to essential needs, including food, shelter, health, and education. Results on coping strategies are presented in Table 5. In response to shocks experienced, 88% of households reported using at least one livelihood-based coping strategy, which is categorized into four groups based on severity. A "neutral" strategy (e.g. reducing food consumption) was reported by 12% of households; 18% used a "stress" strategy (e.g. borrowing money, selling household assets); 14% used a "crisis" strategy (e.g. selling productive assets, selling livestock); and 55% used an "emergency" strategy (e.g. begging, selling the family house, consuming seed stocks meant for next season's planting). These statistics point to

the vulnerable economic state that the households in our sample find themselves in.

23. Households where the female head was not employed fared better on the livelihood coping strategies index, as can be seen in Figure 5, though the difference is small. This might suggest that households where women are employed are more vulnerable.

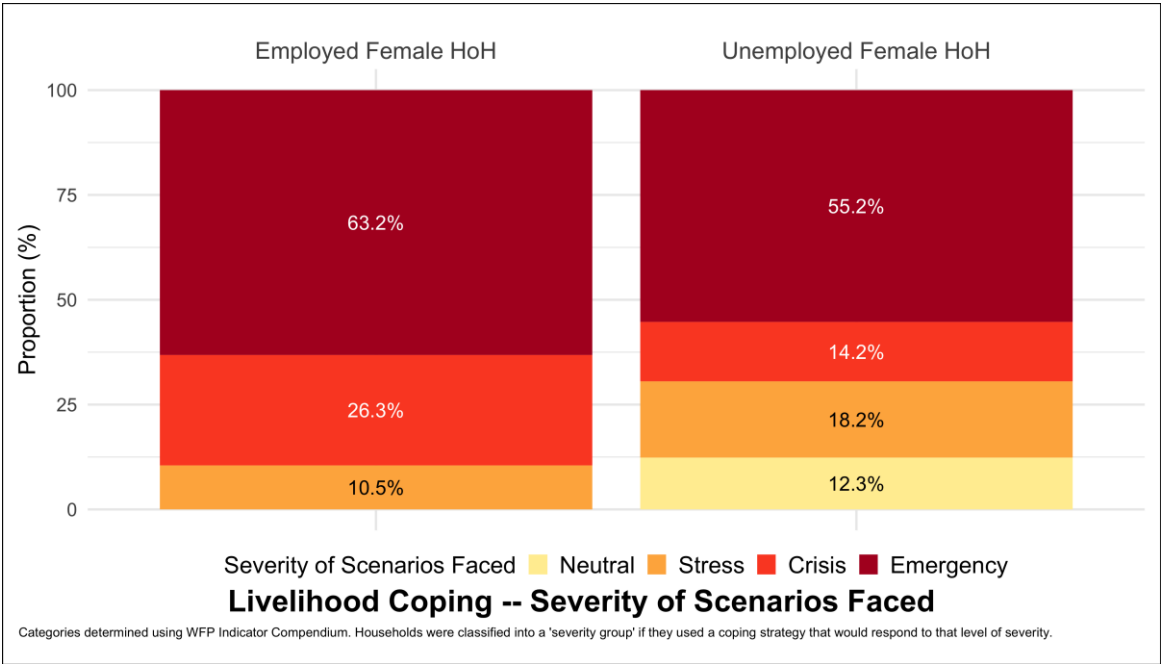
24. Lastly, an “acceptable” level of FCS scores (see previous section) among the sample combined with a high dependence on emergency coping strategies suggests that households are relying on emergency coping strategies to smooth their food consumption.

Table 5: Coping strategies

	Mean	St. Dev.	N
Used Livelihood-Based Coping Strategy	0.88	0.33	1,849
<i>Livelihood-Based Coping Strategy Category</i>			
Neutral	0.12	0.33	1,849
Used Stress Coping Strategy	0.18	0.39	1,849
Used Crisis Coping Strategy	0.14	0.35	1,849
Used Emergency Coping Strategy	0.55	0.5	1,849

Livelihood-Based and Consumption Based Coping Strategy Scores computed using directions from the WFP Compendium.

Figure 5: Livelihood coping strategies



3.2.4 FINANCIAL OUTCOMES

25. Financial activity – savings, loans, and sending/receiving transfers – reflects important capabilities of households to withstand shocks and escape poverty, and women often face higher barriers to financial inclusion. Female heads of households were asked about their use of financial services. Approximately 86% of women reported owning one or more bank accounts. Of these, 99% stated they use mobile banking services, while only 5% mentioned traditional banking services. Additionally, 3% of the owners of traditional bank accounts reported having visited a Bank/ATM in the last 6 months while 80% of the respondents said they used a mobile banking app.

Table 6: Financial outcomes – female head of household

	Mean	St. Dev.	N
Has a Bank/Mobile Banking Account	0.86	0.35	1,849
<i>Bank Account Type</i>			
Traditional Bank	0.05	0.22	1,585
Mobile Bank	0.99	0.07	1,585
Other	0	0.05	1,585
Visited Bank/ATM in past 6 months	0.03	0.16	77
Used Mobile Banking App in past 6 months	0.8	0.4	1,575

3.2.5 EARNINGS

26. Table 7 presents the mean earnings by household and disaggregated by gender for the sample. The yearly mean overall earnings for households in the sample was US\$315.19 – including all working adults. As the sample of households belong to a nomadic community, we find most of their earnings are from livestock (\$ 219.85). Households earn less from wage earnings (\$95.34) and nothing from farm or business earnings. Overall yearly earnings were significantly higher for men (US\$235.29) compared to women (US\$43.53). The gender gap in earnings is large across all income-generating opportunities. We see that men earned \$162.41 from livestock while women only earned \$33.83. Similarly, men earned \$72.88 from wage income while women only earned \$9.7. Farming, livestock, and business earnings were calculated using the following method: we asked respondents to report profits, household managers, and time spent working by individual household members for each endeavour. We then "distributed" profits between household members based on the time they spent working on the farming/livestock/business, up to a daily wage of US\$8. Past that threshold, any remaining profits were distributed evenly between the managers.

Table 7: Earnings

	Mean	St. Dev.	N
Panel A: Female Head of Household			
Yearly Earnings from Wages (2019 PPP USD)	9.7	107.48	1,849
Yearly Earnings from Farming (2019 PPP USD)	0	0	1,849
Yearly Earnings from Livestock (2019 PPP USD)	33.83	150.29	1,849
Yearly Earnings from Business (2019 PPP USD)	0	0	1,849
Panel B: Male Head of Household			
Yearly Earnings from Wages (2019 PPP USD)	72.88	297.72	1,833
Yearly Earnings from Farming (2019 PPP USD)	0	0	1,833
Yearly Earnings from Livestock (2019 PPP USD)	162.41	339.32	1,833
Yearly Earnings from Business (2019 PPP USD)	0	0	1,833
Panel C: Household			
At least One HH Member Employed in the Past 12 months	0.09	0.29	1,849
HH Owns or Rents a Farm	0.01	0.11	1,849
HH Owns or Rents Livestock	0.68	0.47	1,849
HH Operates a Non-Agricultural Business	0.12	0.33	1,846
HH Not Involved in Any of these Four Activities	0.25	0.43	1,849
Yearly Earnings from Wages (2019 PPP USD)	95.34	344.49	1,849
Yearly Earnings from Farming (2019 PPP USD)	0	0	1,849
Yearly Earnings from Livestock (2019 PPP USD)	219.85	421.3	1,849
Yearly Earnings from Business (2019 PPP USD)	0	0	1,849
PPP values calculated using monthly CPI data from the Central Bank of Kenya and the World Bank's PPP conversion factor for private consumption (most recent value for Kenya is from 2021). Values were winsorized at the 0 and 99th percentiles. Individual earnings from farming, livestock, and business were calculated by taking their respective profits and subtracting the value of other household members' labour, splitting the remaining profits between the farming, livestock, or business 'managers'. Value of labour was calculated by attributing profits to each HH member by time spent working, up to a daily median wage of USD8. Households that did not possess a given earning source were considered to have earned \$0 from that source.			

3.2.6 CONSUMPTION

27. The primary outcome variable of interest is the annual predicted consumption variable, seen in Table 8. The variable has been created using the five goods and coefficients selected by a LASSO regression. The goods that were selected include educational expenditure, airtime, women's footwear, women's tailoring and beauty/cosmetic products. While we might expect consumption to be less than earnings, there is literature suggesting that consumption among poor households will be slightly higher than earnings. We see this among our sample as household predicted consumption stands at US\$776.52. As the average number of members in a household are 6, this leaves us with a per capita predicted consumption of US\$150.76.

Table 8: Consumption

	Mean	St. Dev.	N
Annual Predicted Consumption (2019 USD PPP)	776.52	639.46	1,846
Annual Predicted Consumption per Capita (2019 USD PPP)	150.76	177.78	1,846
Values were winsorized at the 5th and 95th percentiles. Predicted consumption was created using a set of five goods and the coefficients produced by a Lasso regression. Those goods were: educational expenditures, airtime, women's footwear, women's tailoring, and beauty/cosmetic products.			

3.2.7 TIME USE

28. An important measure of agency across genders is how much time is spent on productive activities and chores on a daily basis. The literature suggests that when women work for a wage they reduce leisure time, whereas men do not shift into home chores⁵⁶. Overall, we find the baseline results are in line with the

⁵ Hochschild, A. & Machung, A. (2012). *The second shift: Working families and the revolution at home*. Penguin.

⁶ Bertrand, M., Kamenica, E., & Pan, J. (2015). Gender identity and relative income within households. *The Quarterly Journal of Economics*, 130(2), 571-614.

literature. Table 9 shows women spent 8.29 hours per day on chores, while men only spent 2.35 hours. The mean time spent outside the home is 9.74 hours for men compared to 3.58 hours for women heads of households – more than a six-hour difference. Similarly, male heads of household spent more time on salaried and agricultural work (with a mean of 1.32 hours and 3.22 hours, respectively) than female heads of households (with a mean of 0.16 hours and 0.47 hours, respectively). This is consistent with the reported earnings differential between the genders observed in the previous section. While the time spent on self-employment differs across genders, both only spent a few hours on this activity (0.61 hours for men on average and 0.37 hours on average for women).

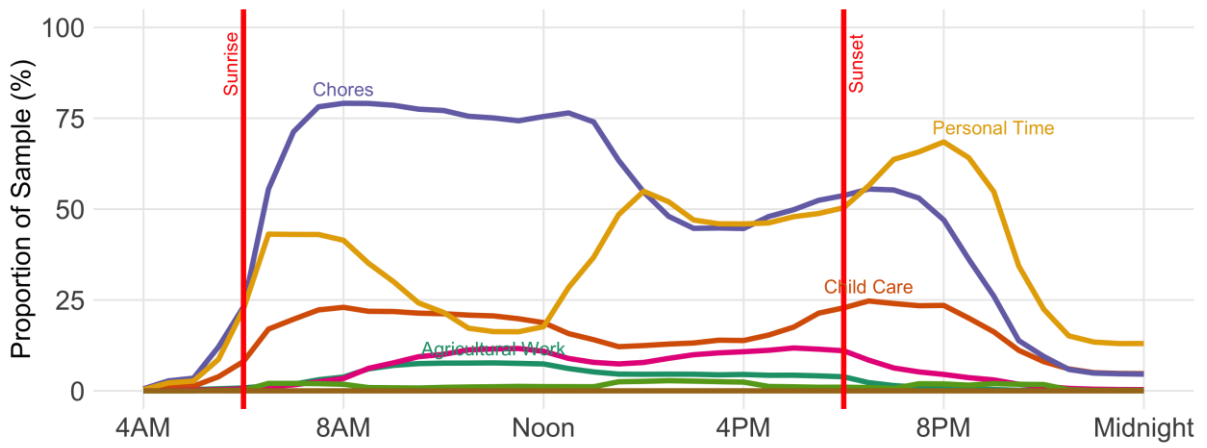
29. Figure 6 plots the proportion of the sample engaged in different activities by time of day. It confirms what we see in Table 9?. The vast majority of women began their day with household chores, and moved into other activities as the day progressed. Childcare is constant throughout the day, with approximately 20-25% of female heads of households engaged in this activity at all times. In contrast, men began their day primarily with personal time which quickly shifts to agricultural and non-agricultural work throughout the daytime. Very few men provide childcare at any time of day, and relatively few do household chores, even during the evenings after work. It remains to be examined, following programme implementation, how an increase in women’s engagement in work outside the household will impact the division of time use across genders.

Table 9: Time use

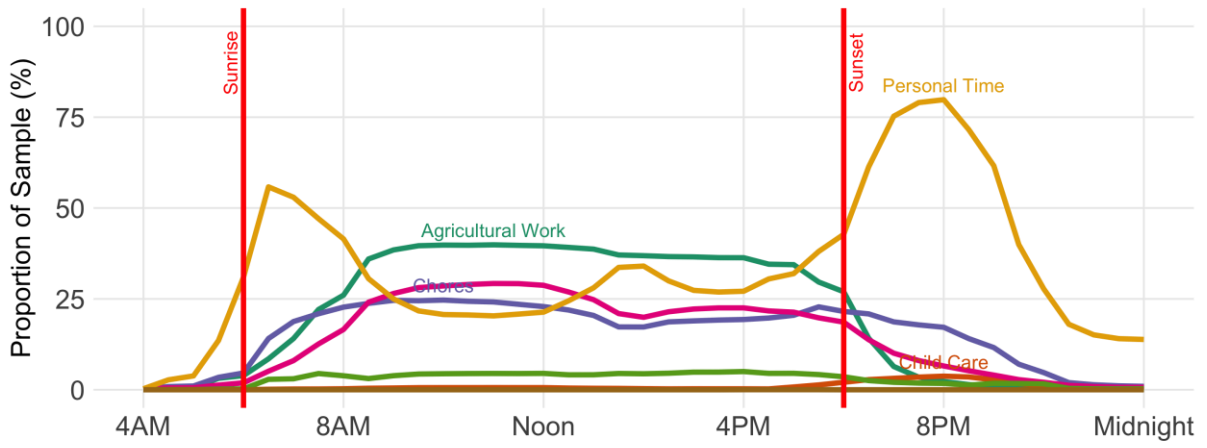
	Mean	St. Dev.	N
Panel A: Female Head of Household			
Time Spent Outside of the Home	3.58	3.49	1,848
Time Spent Working in Self-Employment	0.37	1.55	1,848
Time Spent on HH Agricultural Work	0.47	1.51	1,848
Time Spent Working on a Salary	0.16	1.04	1,848
Time Spent Working on Chores	8.29	3.04	1,848
Panel B: Male Head of Household			
Time Spent Outside of the Home	9.74	5.23	1,833
Time Spent Working in Self-Employment	0.61	2.07	1,833
Time Spent on HH Agricultural Work	3.22	4.32	1,833
Time Spent Working on a Salary	1.32	3.15	1,822
Time Spent Working on Chores	2.35	3.16	1,833
All values are in hours.			

Figure 6: Time use on a typical day: activity distribution

Female HoH



Male HoH



Activity Agricultural Work Child Care Chores Non Agricultural Work
 Other/Don't Know Personal Time WFP Work

3.2.8 AGENCY: WHO DECIDES?

30. While we do observe differences in time use across genders (see above), it is also important to ask if women have the agency, or power, to decide how they use their time⁷. For instance, can women decide how much time they spend on activities such as self-employed work, salaried work, household chores or leisure?

31. We asked women who in their households – in their view – actually decides on their time allocation for these activities: the women themselves (the female head of the household), the male head of the household, or both. The responses were then coded as values +1, 0, or -1, respectively. To complete the index, a weighted average across responses is calculated that takes values between -1 and +1, where -1 would suggest the male head of the household has total agency, 1 would suggest the female head of the household has total agency, and 0 would suggest both have equal agency. Please refer to Figure 11 for a pictorial representation.

32. Table 10 provides the combined index scores, as well as a breakdown by the components.

Figure 7: Index construction

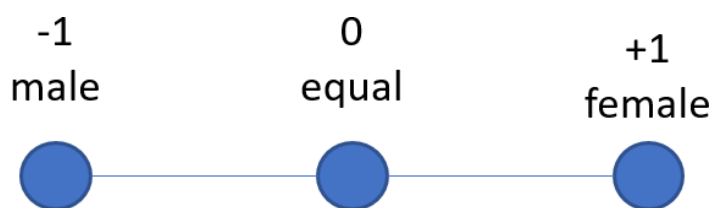


Table 10: Agency

	Mean	St. Dev.	N
Panel A: Agency over Women’s Time Use – Index	0.554	0.432	1,808
Work (Self-Employed)	-0.04	0.863	1,816
Work (Paid)	-0.025	0.833	1,812
Chores	0.879	0.43	1,829
Leisure	0.5	0.777	1,820
Panel B: Agency over Men’s Time Use – Index	-0.569	0.492	1,806
Work (Self-Employed)	-0.583	0.642	1,812
Work (Paid)	-0.633	0.577	1,809
Chores	-0.375	0.88	1,822
Leisure	-0.647	0.651	1,814
Panel C: Agency over Consumption – Index	0.009	0.541	1,790
HH Purchases	0.084	0.748	1,808
Male HoH Purchases	-0.184	0.731	1,811
Female HoH Purchases	0.205	0.724	1,817
Female HoH Health Purchases	-0.084	0.736	1,810

To compare values, the table displays results only for double-headed households. Each index is created on the basis of questions about the four displayed activities: self-employed work, paid work, chores, and leisure. For time use questions, the respondent was asked who they thought should accomplish each of these activities: the female head of household, the female head of household, or both. The consumption index was based on questions about large household purchases, purchases made using each head of household’s income, and the female head of household’s healthcare expenses. The indices were constructed using inverse covariance weighting. Values are between -1 and 1, with 1 roughly meaning perception of full agency and beneficial attitudes towards the Female HoH and -1 meaning no agency and harmful attitudes towards the female HoH

33. Panel A in Table 10 illustrates women’s reported agency over women’s time use. Figure 8 presents a graphical example of how the index is constructed. The combined index value being positive (an overall index score of 0.554) suggests that over (women’s) time use, women have greater agency than men do. This is driven primarily by the score for the chores and leisure. While women report greater agency than men over their time use on chores (0.879) and leisure (0.5), they report lower agency over their time use on paid work and

⁷ Lundberg, S. & Pollak, R. A. (1993). Separate spheres bargaining and the marriage market. Journal of political Economy, 101(6), 988-1010.

self-employment (-0.025 and -0.04 respectively).

34. The weighting approach results in a 41 percent weight for chores and a weight of between 19 percent and 21 percent for each of the remaining three activities because self-employed work, salaried work and leisure time are strongly correlated. The remaining indices in this report are constructed in the same way.

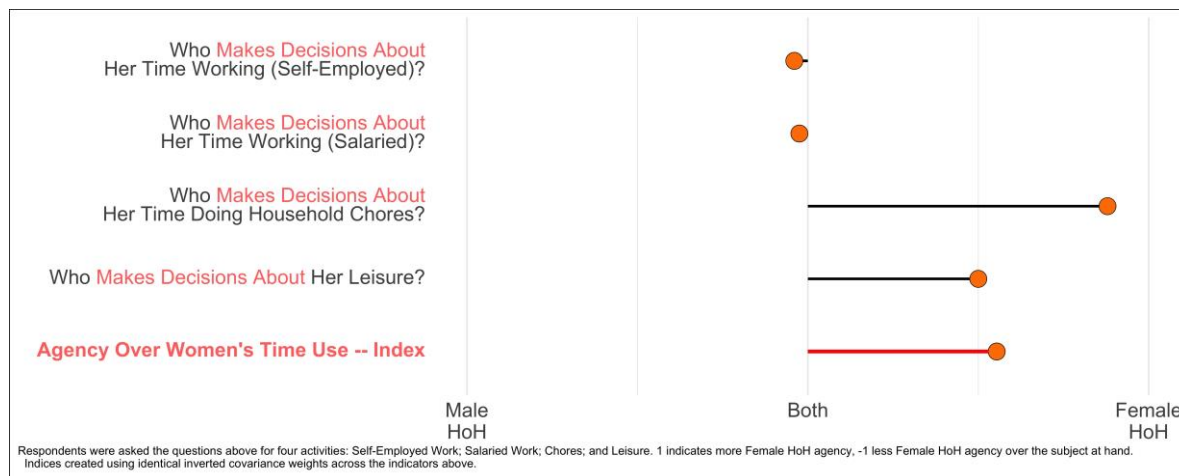


Figure 8: Agency of time use - index example

35. Panel B in Table 10 shows women’s reported agency over men’s time use. It shows an overall index score of -0.569, which suggests that women reported that men have much greater agency over men’s time use on the four listed activities. However, it is mostly driven by agency of paid work and self-employed work (-0.633 and -0.583 respectively).

36. Panel C in Table 10 shows women’s agency over consumption decisions. A mean index score of 0.09 for women’s agency over consumption suggests that women reported relatively equal agency to men over household purchases.

3.2.9 ATTITUDES TOWARDS WOMEN’S TIME USE

37. Having considered actual time use (see Section 4.2.8) and who makes decisions about time use in their households (see Section 4.2.9), we also wanted to know who men and women think (1) should spend more time and (2) make decisions about time spent on each of the four activities. This can be understood as attitudes towards (1) time use and (2) agency over time use⁸. Similar to the above, the index takes values -1 to 1. For attitudes on time use, 1 means that women should spend more time on a particular activity. For agency over time use, 1 means that women should make decisions about time spent on a particular activity.

⁸ Dhar, D., Jain, T., & Jayachandran, S. (2018). Reshaping Adolescents' Gender Attitudes: Evidence from a School-Based Experiment in India. Working Paper 25331, National Bureau of Economic Research.

Table 11: Attitudes

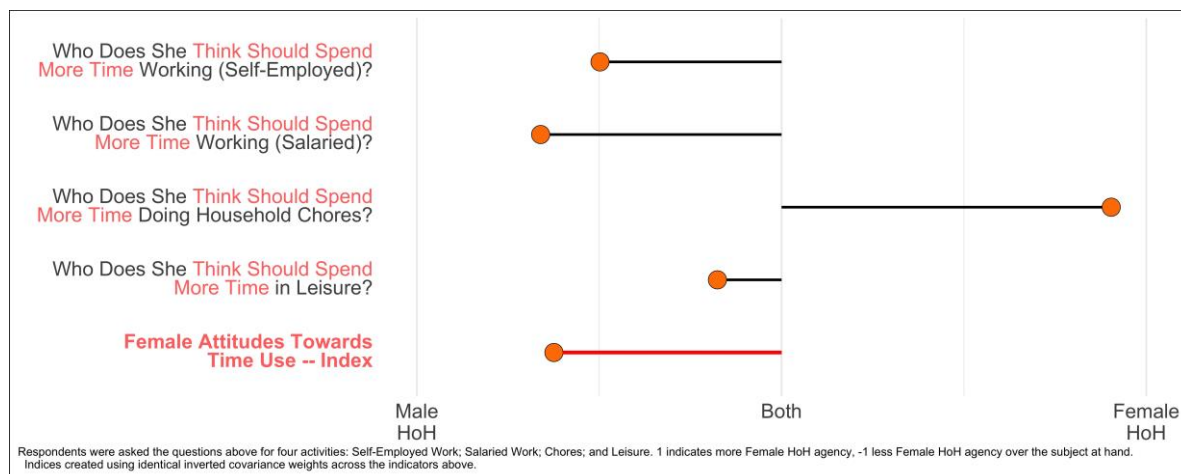
	Mean	St. Dev.	N
Panel A: Women’s Attitudes towards Time Use – Index	-0.624	0.314	1,830
Work (Self-Employed)	-0.498	0.742	1,830
Work (Paid)	-0.661	0.538	1,830
Chores	0.904	0.403	1,830
Leisure	-0.176	0.847	1,830
Panel B: Men’s Attitudes towards Time Use – Index	-0.653	0.287	1,818
Work (Self-Employed)	-0.608	0.657	1,818
Work (Paid)	-0.735	0.463	1,819
Chores	0.888	0.435	1,819
Leisure	-0.151	0.836	1,819
Panel C: Women’s Attitudes towards Agency over Women’s Time Use – Index	0.575	0.427	1,810
Work (Self-Employed)	0.003	0.862	1,818
Work (Paid)	0.01	0.843	1,818
Chores	0.897	0.409	1,828
Leisure	0.5	0.783	1,816
Panel D: Men’s Attitudes towards Agency over Women’s Time Use – Index	0.489	0.491	1,801
Work (Self-Employed)	-0.104	0.868	1,807
Work (Paid)	-0.012	0.846	1,807
Chores	0.797	0.566	1,815
Leisure	0.421	0.821	1,808
<small>To compare the values, the table displays results only for double-headed households. Each indicator is an index created on the basis of questions about four activities: self-employed work, paid work, chores, and leisure. For time use questions, the respondent was asked who they thought should accomplish each of these activities: the female head of household, the female head of household, or both. The indices were constructed using inverse covariance weighting. Values are between -1 and 1, with 1 roughly meaning perception of full agency and beneficial attitudes towards the Female HoH and -1 meaning no agency and harmful attitudes towards the female HoH.</small>			

38. Table 11 presents the index value for attitudes towards time use for men and women using an inverse covariance weighting approach similar to the one detailed above.

39. It is important here to distinguish between the construction of the time-use indices (Panels A and B) and the agency over time-use indices (Panels C and D). The time-use indices weight women spending time on chores negatively, as the time-use gap on chores is generally considered to be detrimental to women (Dhar et al., 2018). The agency over time-use indices, conversely, weight women’s decision making over time spent on chores positively, as we consider more agency over these activities beneficial to women.

40. Panel A displays the overall index for women’s attitudes towards time use (-0.624), and Panel B displays men’s attitudes towards time use (-0.653), which are both tilted towards men. However, attitudes towards time use varied by activity. For example, women believed that while men should spend more time on paid work, self-employed work and leisure (with mean scores of -0.498, -0.661 and -0.176 respectively), men should spend less time on chores (with a mean score of 0.904). Figure 9 presents the figures of Panel A graphically.

Figure 9: Women’s attitudes towards time use – index example



41. As shown in Table 11, men (Panel B) believed they should spend more time on all activities except chores – all the other activities show negative mean values (-0.608, -0.735 and -0.151). However, with a mean

value of 0.888, men believed women should spend more time on chores (in line with women's beliefs).

42. Panels A and B of Table 10 outline results indicating who should spend time on the listed activities. An equally important question is who women and men think should make decisions pertaining to time use of women on the four activities, which is displayed in Panels C and D of Table 11.

43. With an overall index value of 0.575 (female respondents) and 0.489 (male respondents), both genders believed most of the decisions about women's time use should be made by women. More specifically, women believed women should make decisions regarding chores and leisure (with positive mean values of 0.897 and 0.5), while –close to zero – women believed they should make decisions about women's paid work and self-employed work together (with a mean value of 0.01 and 0.003).

44. Men believed that decisions on women's time spent doing self-employed work should be taken by men, with mean values of -0.104. However, they believed women's time use towards chores and leisure should be decided by women with a mean value 0.797 and 0.421. Men believed decisions for self-employed work should be taken by both with a score of -0.012 (close to zero).

45. The breakdown of the different components in Panels C and D suggests that attitudes towards women's agency over work and leisure are highly correlated, with chores as a result taking a larger weight in the main index's construction.

3.2.10 PERCEPTION OF NORMS: WHAT WOMEN PERCEIVE ABOUT THE COMMUNITY

46. To recap, the previous sections discussed:

- actual time use in their household (Section 6.1.7);
- who makes the decisions on time use in their household (Section 6.1.8);
- attitudes as to who should spend time on tasks (Section 6.1.9, Table 10 Panels A and B); and
- who should have agency to make decisions on time use (Section 6.1.9, Table 10 Panels C and D).

47. Lastly, perceptions of community norms play an important role in determining women's agency⁹¹⁰. How people perceive other community members' time use, and agency over time use, may feed into their own decision making. As participation in FFA is expected to increase women's interactions with other members of their community, shifted perceptions of community norms might thus be the mechanism through which household decision making is affected.

Perceptions: Time use in the community

48. We asked both men and women about perceived time use in the community (their perceptions of community norms) for the four activities. The data is shown in Panels A and B of Table 12.

49. The weighted index takes values -1 to 1 and represents who (male or female) in the community the respondent believes spends more time on a particular activity. Similar to attitudes over time use (see Section 4.2.10), the perception of norms of time use indices negatively weight women spending more time doing chores.

50. Women (Panel A) believed that men in the community spend more time on self-employed work, paid work and leisure with scores of -0.545, -0.74 and -0.268, respectively. However, they believed women spend more time on chores (with index scores of 0.936). The overall index score is -0.681. Figure 10 presents Panel A graphically.

51. Men (Panel B) believed men spend more time on self-employed work, paid work and leisure (with index scores of -0.639, -0.789 and -0.228), while women spend more time on chores (with an index score of 0.876 in the community). The overall index score for men's perceptions is -0.682. This data shows that there is a high overlap between the women's and the men's perceptions.

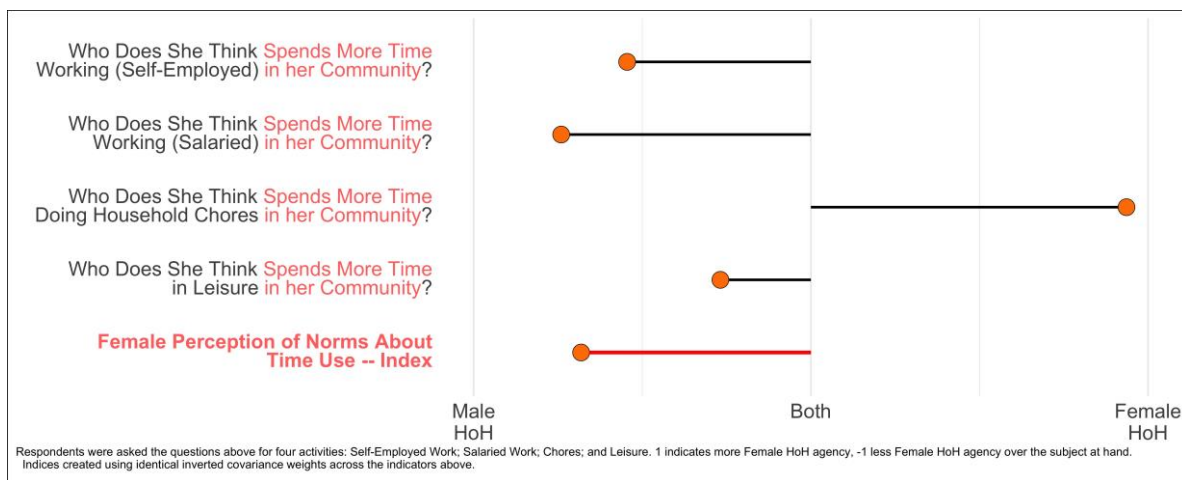
⁹ Beaman, L., Chattopadhyay, R., Duo, E., Pande, R., & Topalova, P. (2009). Powerful women: does exposure reduce bias? The Quarterly journal of economics, 124(4), 1497-1540.

¹⁰ Bursztyn, L., Gonz_alez, A. L., & Yanagizawa-Drott, D. (2018). Misperceived social norms: Female labor force participation in Saudi arabia. (24736).

Table 12: Perception of norms

	Mean	St. Dev.	N
Panel A: Women’s Perception of Norms of Time Use – Index	-0.681	0.292	1,830
Work (Self-Employed)	-0.545	0.744	1,830
Work (Paid)	-0.74	0.486	1,830
Chores	0.936	0.33	1,830
Leisure	-0.268	0.86	1,830
Panel B: Men’s Perception of Norms of Time Use – Index	-0.682	0.29	1,817
Work (Self-Employed)	-0.639	0.661	1,817
Work (Paid)	-0.789	0.423	1,819
Chores	0.876	0.461	1,819
Leisure	-0.228	0.853	1,819
Panel C: Women’s Perception of Norms of Agency over Women’s Time Use – Index	0.488	0.404	1,830
Work (Self-Employed)	-0.25	0.884	1,830
Work (Paid)	-0.252	0.869	1,830
Chores	0.92	0.376	1,830
Leisure	0.352	0.867	1,830
Panel D: Men’s Perception of Norms of Agency over Women’s Time Use – Index	0.507	0.445	1,818
Work (Self-Employed)	-0.162	0.922	1,819
Work (Paid)	-0.153	0.89	1,819
Chores	0.887	0.443	1,818
Leisure	0.41	0.847	1,818
Panel E: Women’s Perception of Norms of Attitudes towards Time Use – Index	-0.667	0.296	1,830
Work (Self-Employed)	-0.564	0.715	1,830
Work (Paid)	-0.727	0.479	1,830
Chores	0.911	0.389	1,830
Leisure	-0.236	0.834	1,830
Panel F: Women’s Perception of Norms of Attitudes towards Agency over Women’s Time Use – Index	0.496	0.39	1,830
Work (Self-Employed)	-0.267	0.883	1,830
Work (Paid)	-0.264	0.86	1,830
Chores	0.937	0.331	1,830
Leisure	0.367	0.861	1,830
<p>To compare the values, the table displays results only for double-headed households. Each indicator is an index created on the basis of questions about four activities: self-employed work, paid work, chores, and leisure. For time use questions, the respondent was asked who they thought should accomplish each of these activities: the female head of household, the male head of household, or both. The indices were constructed using inverse covariance weighting. Values are between -1 and 1, with 1 roughly meaning perception of full agency and beneficial attitudes towards the Female HoH and -1 meaning no agency and harmful attitudes towards the female HoH.</p>			

Figure 10: Women’s perception of norms about time use – index



Perceptions: Decisions about time use in the community

52. We also asked questions about who the respondents thought made decisions on each of the four activities in the community (Panels C and D of Table 12).

53. Women believed (Panel C) that women in their community make decisions about their time spent on chores and leisure (with index scores of 0.92 and 0.352). Women believed men make decisions on women’s time on self-employed work and paid work in the community (with index scores of -0.25 and -0.252). The overall index score is 0.488, with work and leisure highly correlated leading to chores having a larger weight. The data on community perceptions of agency over decision making overlaps to a large degree with agency attitudes in their own home (compare Table 10).

54. Men believed (Panel D) decisions about time use for women’s self-employed work and paid work and were made by men in the community (with index scores of -0.162 and -0.153). They believed women make decisions on women’s chores and leisure in the community (with an index score of 0.887 and 0.41). The overall index is 0.507, and the data show that both genders report similar perceived decision-making patterns for the community.

Perceptions of community attitudes: Who should spend time on activities?

55. Additionally, women were asked their views regarding community attitudes: who the community thought should spend more time on each of the activities (perception of community norms of attitudes towards time use)? The results are presented in Panel E of Table 12.

56. Women thought the opinion in the community is that men should spend more time on self-employed work, paid work and leisure activities (with index scores of -0.564, -0.727 and -0.236, respectively), and women should spend more time on chores (with an index score of 0.911). The overall weighted index score is -0.667.

57. An interesting comparison of Panel E in Table 12 is with Panel A of Table 11. The perceptions regarding their own home and what they observe in the community are almost identical.

Perceptions of community attitudes: Who should make decisions on time use?

58. Lastly, women were asked about who the community thinks should make decisions about time use. The results are presented in Panel F of Table 12. Women believed the opinion in the community is that women should make decisions about their time spent on chores and leisure (with an index score of 0.937 and 0.367). Women believed the opinion in the community is that men should make decisions on self-employed work and paid work (with scores of -0.267 and -0.264, which are both close to zero). The overall index score is 0.496.

59. An interesting comparison here is between Panel F of Table 12 and Panel C of Table 11, which shows a large overlap in their views on their household and perceived community norms.

3.2.11 PSYCHOLOGICAL WELL-BEING

60. To evaluate psychosocial well-being, the survey collects measures of respondents’ locus of control, anxiety, and depression.

61. The Locus of Control score is computed using the Rotter’s (1966) method. A high locus of control score signifies greater external control over respondents’ decisions and therefore the lower the perceived sense of internal control individuals perceive to have over their life. We find the locus of control to be 5.09 among both women and men (on a scale from 0 to 10). As shown in Figure 11, households where the female head is

employed exhibit higher locus of control scores (and thus lower control).

62. Stress scores are calculated using the Perceived Stress Scale from Cohen, Kamarck and Mermelstein (1983). As shown in Table 13, 98% of the women and 98% of men reported being moderately or highly stressed. The stress levels seem to be particularly high among the sample population.

63. The baseline survey also asks about the respondent's state of depression using the standard Patient Health Questionnaire (PHQ-9). The data shows high frequencies of reported depression, with all of the men reporting at least mild depression symptoms. We find 4% of women state they were moderately severe or severely depressed, compared with 12% of men.

64. We measure life satisfaction scores using the Diener et al. (1985) method. Both men and women report nearly the same level of dissatisfaction or extreme dissatisfaction (56% for women and 58% for men).

65. Food insecurity and low ability to cope with shocks may explain why we see high levels of stress, moderately severe and severe depression and high level of extreme dissatisfaction and dissatisfaction within the sample households. The limited agency and excess responsibilities borne by women in particular can be expected to negatively impact their mental well-being, compared to that of men.

Table 13: Wellbeing

	Mean	St. Dev.	N
Panel A: Female Head of Household			
Locus of Control Score	5.09	1.68	1,849
<i>Stress Score Category</i>	0.02	0.13	1,849
Low Stress Moderate Stress	0.97	0.17	1,849
High Stress	0.01	0.11	1,849
<i>Patient Health Questionnaire (PHQ-9) Category</i>			
Minimal Depression Mild Depression			
Moderate Depression			
Moderately Severe Depression Severe Depression	0.74	0.44	1,849
<i>Life Satisfaction Score Category Extreme</i>	0.14	0.35	1,849
Dissatisfaction	0.07	0.26	1,849
Dis-satisfaction	0.04	0.2	1,849
Below Average Satisfaction Average Satisfaction	0	0.07	1,849
High Satisfaction			
Very High Satisfaction	0.22	0.41	1,783
	0.34	0.47	1,783
	0.17	0.38	1,783
	0.08	0.27	1,783
	0.12	0.33	1,783
	0.06	0.24	1,783
Panel B: Male Head of Household			
Locus of Control Score	5.09	1.65	1,824
<i>Stress Score Category Low Stress</i>			
Moderate Stress	0.02	0.13	1,824
High Stress	0.97	0.16	1,824
<i>Patient Health Questionnaire (PHQ-9) Category</i>	0.01	0.11	1,824
Minimal Depression Mild Depression			
Moderate Depression			
Moderately Severe Depression Severe Depression	0	0	1,155
<i>Life Satisfaction Score Category Extreme</i>	0.63	0.48	1,155
Dissatisfaction	0.25	0.43	1,155
Dis-satisfaction	0.11	0.31	1,155
Below Average Satisfaction Average Satisfaction	0.01	0.11	1,155
High Satisfaction			
Very High Satisfaction	0.22	0.42	1,756
	0.36	0.48	1,756
	0.17	0.38	1,756
	0.08	0.27	1,756
	0.11	0.31	1,756
	0.06	0.24	1,756
Stress and Life Satisfaction data were not collected from Male heads of household. Locus of Control score calculated using Rotter (1954). A higher locus of control score implies a feeling of less control over one's environment. Stress score calculated using the Perceived Stress Scale from Cohen, Kamarck & Mermelstein			

(1983). Depression score calculated using the standard Patient Health Questionnaire (PHQ-9). Life satisfaction score calculated using Diener et al. (1985).

Figure 11: Locus of control

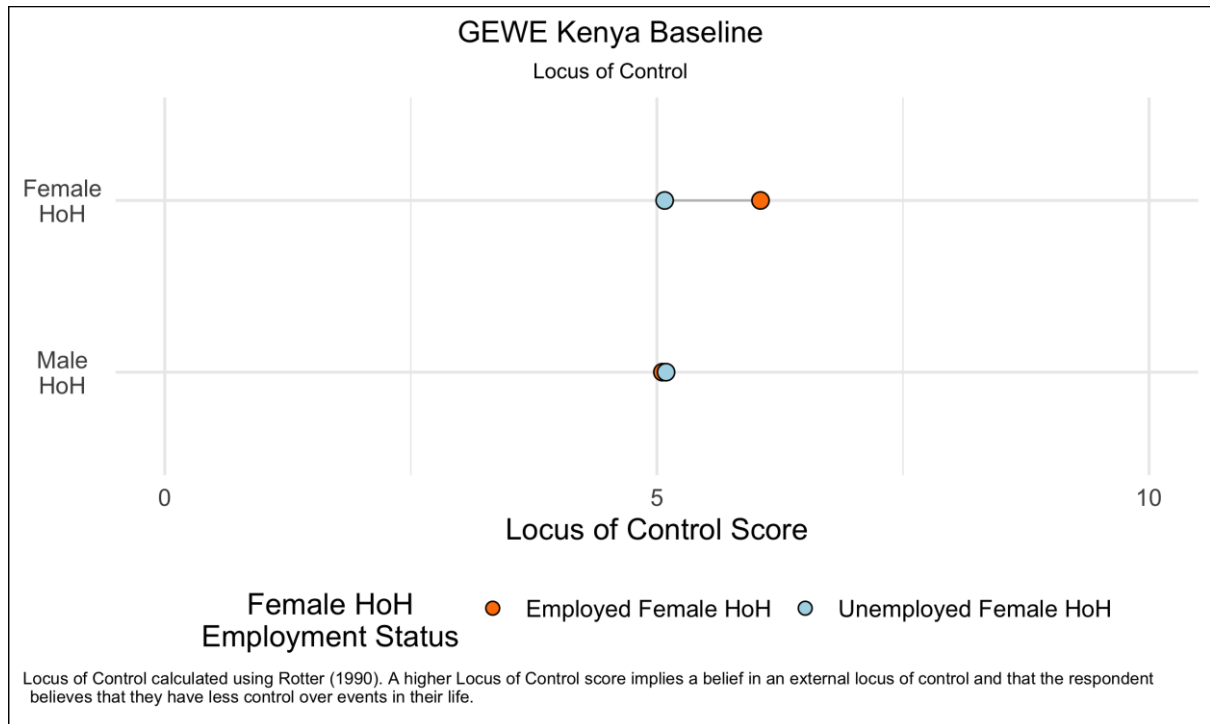
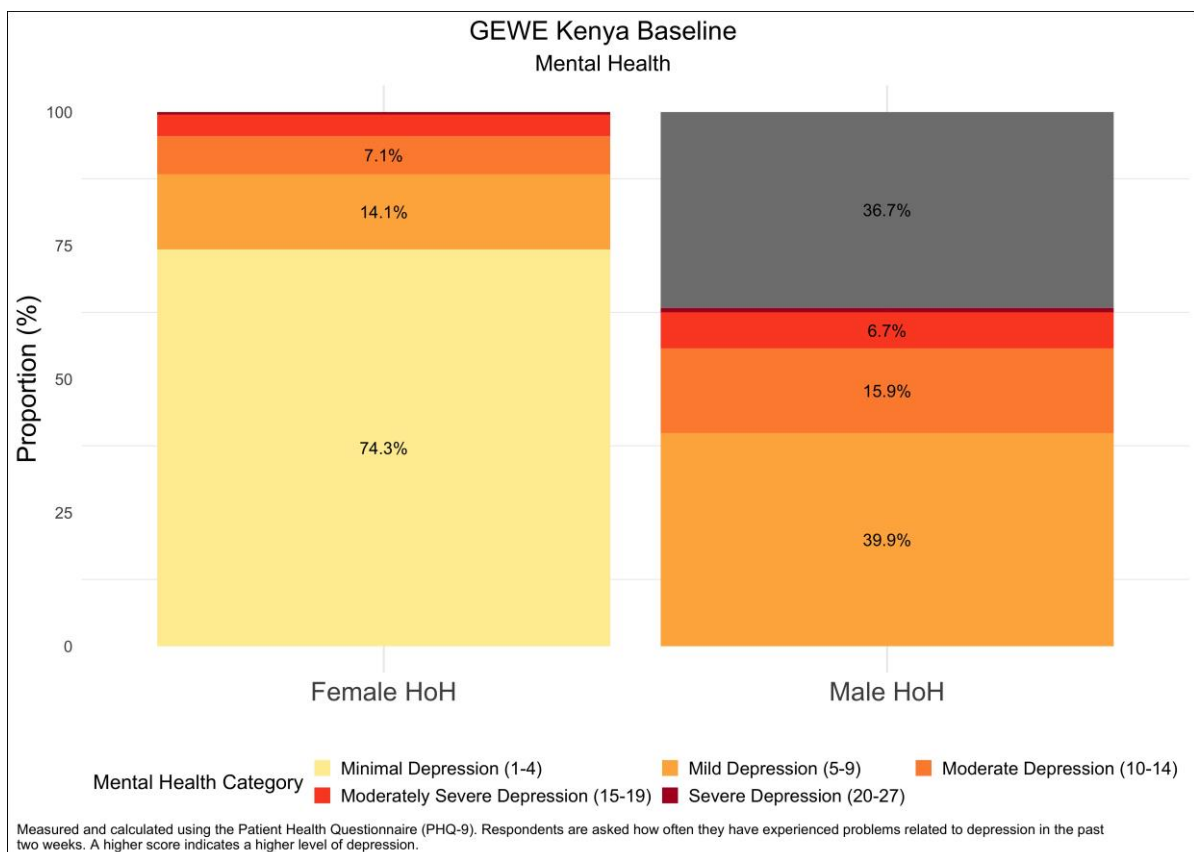


Figure 12: Mental health



4. Lessons and Conclusions

4.1 LESSONS

66. The execution of the impact evaluation baseline survey has gone well. There are however challenges that need to be kept in mind as they may influence how one interprets the results from the midline/endline survey. In particular, there may be reasons that households decide not to participate in FFA (if there are better paid outside options for example). The IE team will work closely with programme teams to ensure participants are mobilized and attendance rates are as high as possible.

67. There are also factors that are beyond the control of the project team that should be considered while assessing the future results from the project. For instance, the security situation in some parts of the survey region has deteriorated. Additionally, there are reports of the drought situation in the region becoming severe this year. As the impact evaluation focuses on vulnerable communities, it must be noted that households in the sample, including the control group, will receive any other applicable humanitarian assistance outside of the programme evaluated. The impact evaluation team is following the rapidly changing situation on the ground very closely and will factor this into the analysis.

4.2 EARLY FINDINGS

68. This descriptive baseline analysis highlights the potential for the FFA programme to generate significant impacts on households' livelihoods and well-being. Targeted households appear vulnerable and are generally considered poor: earning US\$ 315.19 and with a predicted consumption of US\$776.52 (US\$0.35 per capita per day). Moreover, 27% of households are considered "borderline" food insecure. Reliable sources of income from public works and diversified livelihoods from asset creation could meaningfully increase household resilience.

69. Moreover, we see some evidence of intrahousehold gender inequality. Women earn 18% of what male heads of household earn, they spend more time doing household chores and less time working, and they have less agency over certain dimensions of their time use (potentially explained by both attitudes within the household and societal norms).

70. Lastly, basic balance checks confirm the randomization was successful. This is necessary to ensure the impact evaluation will deliver rigorous estimates of the short run and medium run impact of participation in the FFA programme for men and women on a broad range of outcomes associated with women's economic empowerment and household well-being.

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Annex

Figure 13: Attitudes and perceptions of norms – time use

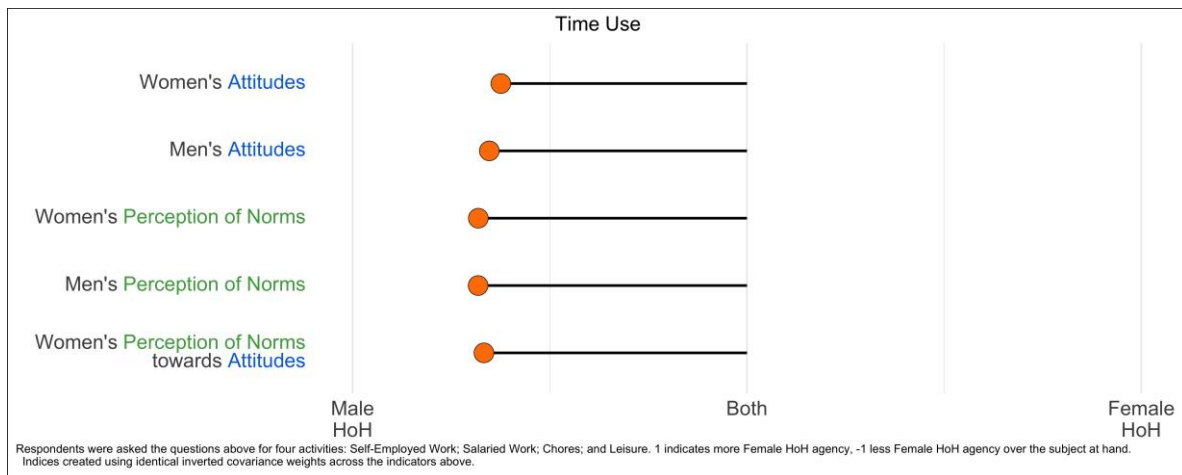


Figure 14: Attitudes and perceptions of norms – agency over women's time use

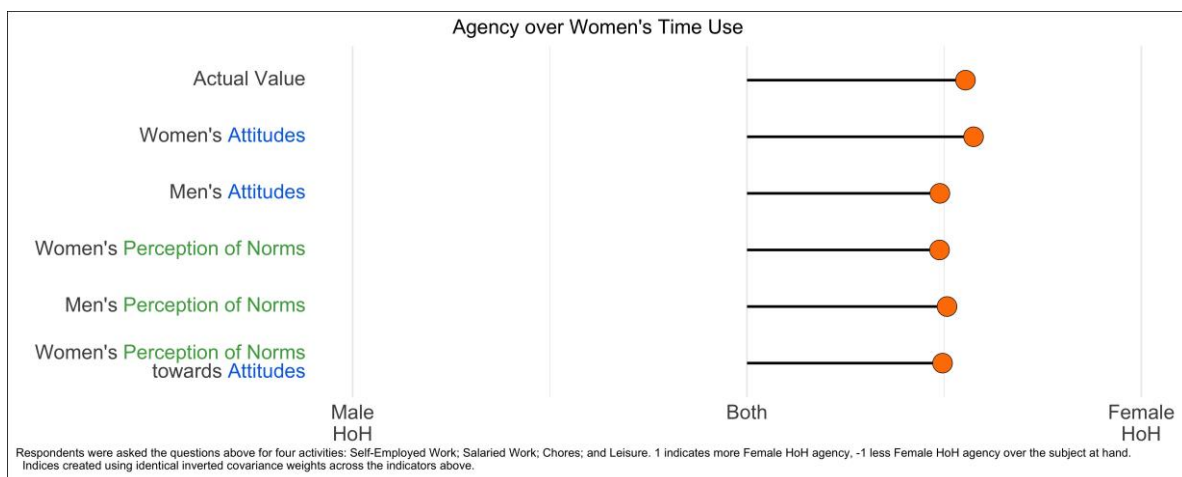


Figure 15: Attitudes and perceptions of norms – agency over men's time use

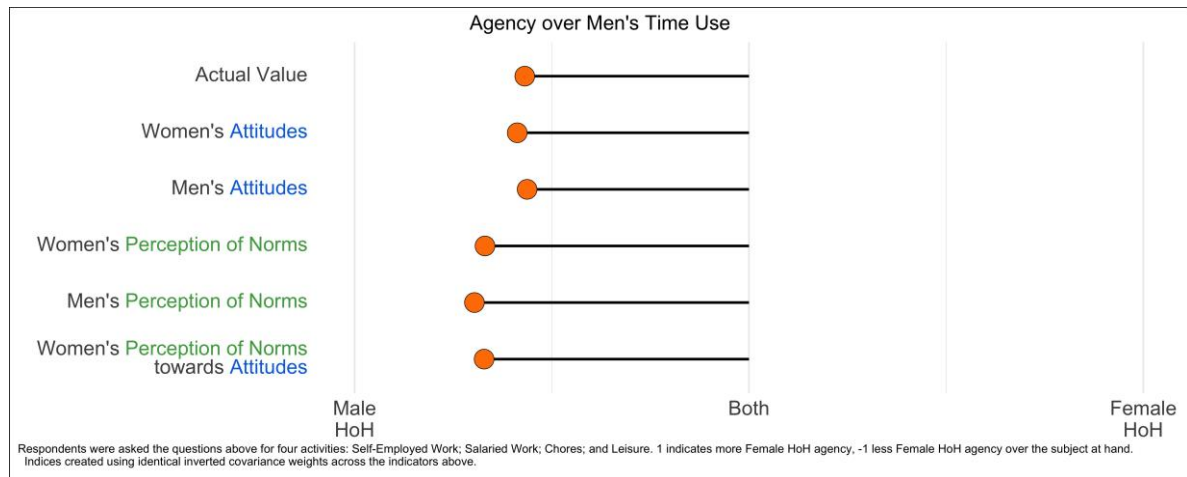


Figure 16: Attitudes and perceptions of norms – Household consumption

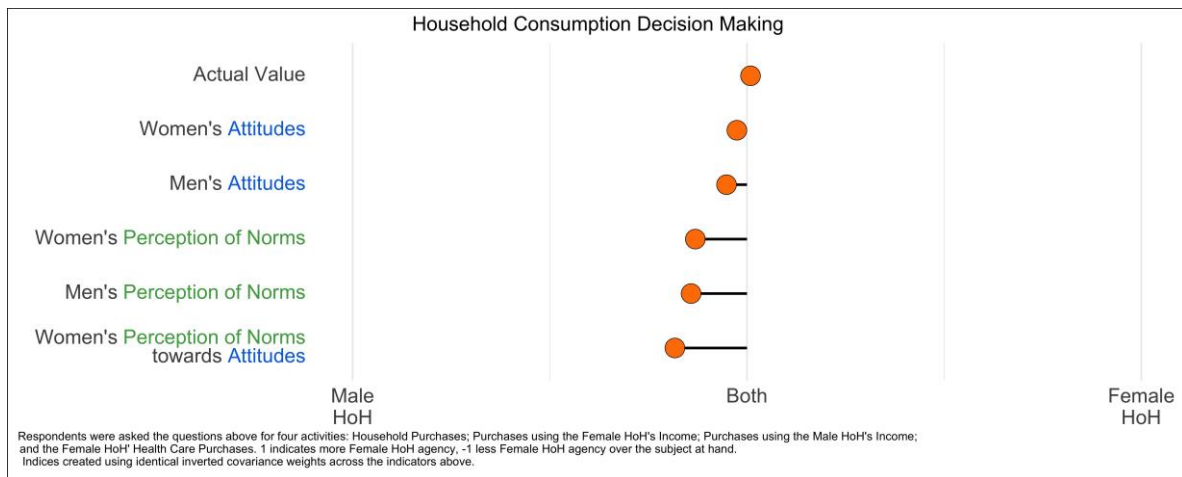
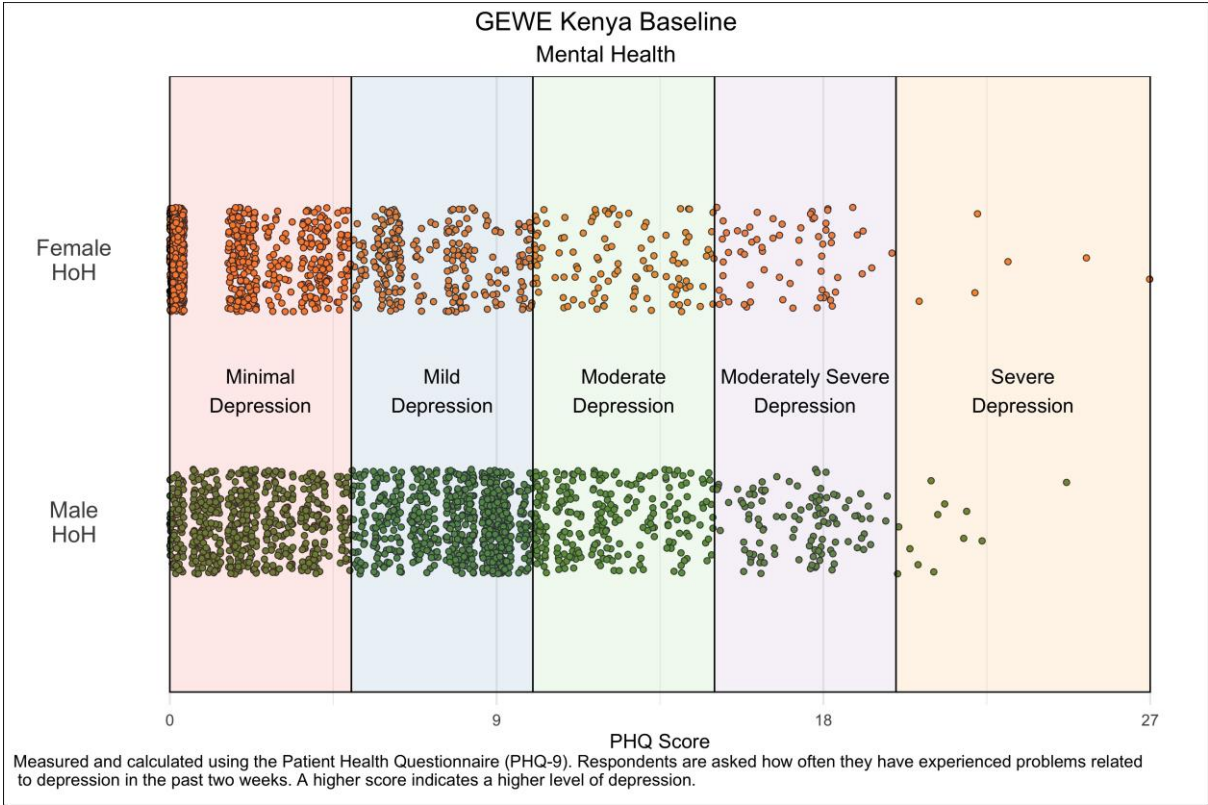


Figure 17: Mental health



Acronyms

CBT&G	Cash Based Transfers & Gender Window
CO	Country Office
DIME	Development Impact Evaluation
FAO	Food and Agricultural Organisation
FCS	Food Consumption Score
FFA	Food Assistance For Assets
GEWE	Gender Equality and Women Empowerment
HOH	Head of the Household
IE	Impact Evaluation
IPV	Intimate Partner Violence
PHQ	Patient Health Questionnaire
PPP	Purchasing Power Parity
RCT	Randomized Control Trial
WFP	World Food Programme

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