

Measuring Empowerment in the Market Access eNabled by Digital Innovation (MANDI) Project

BASELINE STUDY REPORT

March 21, 2023

Acknowledgements

This report was written by Shekhar Kedia of Grameen Foundation India and Bobbi Gray and Emily Brown of Grameen Foundation USA. The authors would like to thank the team from the International Food Policy Research Institute, particularly Kalyani Raghunathan, Jessica Heckert, and Flor Paz for their support and initial pro-WEAI analysis that has been included in this report. Also, we would like to express our gratitude for the extended team at Grameen Foundation India who is leading the Market Access eNabled by Digital Innovation (MANDI) project and some of whom supported the data collection. Finally, we would like to thank Walmart Foundation for their financial support of this research.



Table of Contents

Α	ckno	wledgements	i
L	ist of	Tables	iii
L	ist of	Figures	iii
Α	cron	yms	. iv
E	xecu	tive Summary	v
1	В	ackground	1
2	Α	bout MANDI	1
3	R	esearch approach and methodology	2
	3.1	Research design	2
	3.2	Research scope and level of evaluation	3
	3.3	Ethical considerations	3
	3.4	Study limitations	3
	3.5	Research methods	4
	3.	5.1 pro-WEAI+MI tool	4
	3.	5.2 Qualitative research methods	6
4	Ρ	rofile of the respondents	7
	4.1	Household profile	7
	4.2	Agricultural profile	8
5	R	esults	9
	5.1	Role in decision-making around livelihood activities	9
	5.2	Access to training/information	12
	5.3	Access to digital and financial services	13
	5.	3.1 Access to credit	14
	5.4	Time allocation	15
	5.5	Group membership and collective agency	16
	5.6	Mobility and freedom of movement	19
	5.7	Aspirations and future self	20
	5.8	Sexual hostility and attitudes about violence against women	21
	5.9	pro-WEAI analysis	23
6	D	iscussion	25
7	С	onclusion	26
Α	nnex	cures	28
	Brie	f about the pro-WEAI tool	28
	pro-	WEIA+MI tool	29
	Qua	alitative tools	62

List of Tables

Table 1: pro-WEAI domains, indicators, and adequacy thresholds	5
Table 2: Cropping seasons and crops grown	
Table 3: Sexual hostility occurrences faced by the respondent – Never and sometimes experienced	
Table 4: Respondent's opinion or attitude about violence against women in various scenarios	23
Table 5: Baseline pro-WEAI results	23

List of Figures

Figure 1: PPI levels	7
Figure 2: Education level of HH female head	7
Figure 3: Ownership of mobile phones	
Figure 4: Farmer type	8
Figure 5: Participation in IGA in the last 12 months	9
Figure 6: Decision-making in IGA in the last 12 months	10
Figure 7: Level of input in decision-making	
Figure 8: Perception of input in decision-making	11
Figure 9: Input in decision- sale of produce	11
Figure 10: Input in decision: Use of income	12
Figure 11: Received training/information on IGA	12
Figure 12: Decided to act on the information received	13
Figure 13: Access to bank accounts	13
Figure 14: Access to online payments	13
Figure 15: Access to BC agents	14
Figure 16: Respondent taking decision on source of borrowing	14
Figure 17: Time allocation	15
Figure 18: Gender Balance Tree mapped during the field visit	16
Figure 19: Active group membership	17
Figure 20: Restrictions faced by the spouse, other HH members	19
Figure 21: Aspiration score	
Figure 22: Count of statements agreed	20
Figure 23: Contributions to disempowerment	24

Acronyms

3DE Three Domains of Empowerment

ANEW Applying New Evidence for Women's empowerment

AGM Annual General Meeting BC Banking Correspondent

BoD Board of Director

CDP Capacity Development Plan
DiD Difference-in-Difference
FPO Farmer Producer Organization

GBT Gender Balance Tree
GFI Grameen Foundation India
GFUSA Grameen Foundation USA
GPI Gender Parity Index

HH Household

IFPRI International Food Policy Research Institute

IGA Income-generating Activity IRB Institutional Review Board

MANDI Market Access eNabled by Digital Innovation

MGNREGA Mahatma Gandhi National Rural Employment Guarantee Act

NPL National Poverty Line
PPI Poverty Probability Index

pro-WEAI Project-level Women's Empowerment in Agriculture Index

pro-WEAI+MI Project-level Women's Empowerment in Agriculture Index + Market Inclusion

PSM Propensity Score Matching
RAI Relative Autonomy Index
SHF Smallholder Farmer
SHG Self-help Group
ToC Theory of Change

UP Uttar Pradesh

USAID The United States Agency for International Development

Executive Summary

Grameen Foundation USA (GFUSA) and its Indian subsidiary, Grameen Foundation India (GFI) (together, Grameen) are assisting 40 FPOs in the Purvanchal region of Uttar Pradesh (UP), India through a Walmart Foundation-funded "Market Access eNabled by Digital Innovation" (MANDI) project. The MANDI project aims to strengthen the capacity of 40 select FPOs to connect smallholder farmers (SHFs), especially female farmers, to markets and finance in order to improve their incomes and resilience. The project supports 10,000 SHFs, including at least 4,000 female farmers, working across several value chains such as wheat, paddy, vegetables, and other crops to improve their access to extension services, market opportunities, and financial services.

The Applying New Evidence for Women's empowerment (ANEW) research led by the International Food Policy Research Institute (IFPRI) and funded by the Walmart Foundation also supports Grameen in expanding the scope of research and learning agenda for the MANDI project. With the inclusion and testing of the project-level Women's Empowerment in Agriculture Index plus Market Inclusion (pro-WEAI +MI) tool, Grameen seeks to test the hypothesis that "fostering intra-household decision-making leads to the improved market orientation of smallholder farmers and women's engagement and empowerment levels in agriculture". This report highlights the key findings from a baseline assessment completed in 2021 and outlines some key opportunities and risks that Grameen should consider both from a methodological view and programming view to understanding pro-WEAI+MI results as well as implications of the results for the project activities.

The research adopts a pre- and post-intervention quasi-experimental design with a mixed-methods approach to data collection. The quantitative research includes administering the new pro-WEAI+MI tool with 1,000 households (1,000 men and 1,000 women) across a treatment and comparison group and the qualitative research includes administering tools such as key informant interviews with FPO board members and members, seasonality calendars, life histories, and gender balance trees to understand the nuanced context and factors influencing empowerment levels at baseline and endline rounds.

The baseline results suggest that the average age of the female respondents was 46 years and the average age for the male respondents was 52 years. Mobile phone ownership is fairly high among men (82 percent) compared to women (45 percent). The average land size holding is 1.0 hectares among the treatment group and 1.4 hectares among the comparison group. Farmers in the study area cultivate year-round and there are three important cropping seasons: Kharif (June through November growing paddy), Rabi (November through March growing wheat), and Zaid (March through June growing okra and bitter gourd). Men and women also participate in the Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA) work during the Zaid season. Migration is a strategy often used by men when there are economic problems in the household and when they migrate differs across communities.

Almost all men and women report participating in activities related to the primary and secondary commodities and rearing of large livestock; women are only a few percentage points behind men in these activities. However, women are almost twenty percentage-points less likely to make decisions regarding these income generating activities (IGAs). Where they do have input into decisions, it most often has to do with "how much of the produce was to be kept for household consumption and how much was to be sold off in the market." Women are also more likely to report having little to no input in the use of income earned from sale of produce compared to men; however, interestingly, men do not report having input into all decisions, suggesting that someone other than himself or his wife is making the decision (such as a father or father-in-law).

Less than 35 percent of men and 25 percent of women have received training or information on the primary commodity they grow. Access to information on the secondary commodity is fairly similar; however, the

treatment group reports slightly more access to information regarding the secondary commodity compared to the comparison group. When accessing training or information related to the primary commodity, men are most likely to say they received this information from an FPO and a government extension worker. Women are also likely to state an FPO as a source, but the second most reported source is family or friends.

Between 65 and 72 percent of women from the comparison and treatment groups, respectively, have access to a bank account, falling approximately 10 (treatment group) to almost 20 percentage-points (comparison group) behind men. Access to digital financial services, such as those facilitated through mobile money agents or access through one's own mobile phone is much lower among the study groups. Around 11 percent of women and 28 percent of men reported access to online transactions using mobile phones. The research findings showed that a primary source of credit for men is microfinance institutions followed closely by banks, while for women it is self-help groups. Men tend to use sources of credit for agricultural expenses while women use credit for household expenses.

When assessing time allocations and work balance, the findings show that barring sleep hours, men spend the majority of their time engaged in employment, which captures any IGAs like agriculture and allied activities, non-farm activities (construction/wage labour), microenterprises, and jobs and spend more time working than women. Women reported spending more time toward domestic chores and caretaking than men. Qualitatively, however, women reported being deeply involved in many agricultural activities, suggesting the hours they spend working for pay is underestimated. The timing of the survey, which was post-harvest, might have also influenced the time allocations reported by men and women alike.

Surprisingly, only 6 percent of men and 1 percent of women report membership with an FPO; however, slightly more than half of men and between 17 and 20 percent of women in comparison and treatment groups, respectively, reported belonging to "other agricultural and agri-allied groups", of which FPOs could be considered a sub-set. Qualitative interviews seem to suggest that given several of the FPOs had just started up or some had not yet been successful at providing services to their members and given the seasonality of some FPO activities, "active membership" may be underestimated based on these conditions. Women's particularly low membership in either FPOs or other agricultural or agri-allied groups may be due to the social norms in UP that suggest that "women don't want to step out of their homes, and at times, they are not encouraged by their family members" or due to their limited time and interest to belong to such groups.

Women, more than men, reported restrictions to their mobility. More than 40 percent of women reported being restricted to visit FPOs, agricultural fields and social gatherings and slightly less than 40 percent of women reported being restricted to visit markets. Some men also reported mobility restrictions, particularly to social gatherings (14%), markets (13%) and FPOs (12%); however, qualitatively men did not mention having difficulty visiting any location, which might suggest other household decision-makers, such as fathers or fathers-in-laws may be discouraging visiting these locations due to work expectations. Mobility is often restricted so much for women that they qualitatively shared not desiring to visit any location outside of their home, particularly without being accompanied by someone.

When men and women were asked to rank four aspirational qualities, annual household income, quality of the product, ability to negotiate, and social status as an entrepreneur, men ranked ability to negotiate and quality of the product higher than women whereas women ranked annual household income and social status as an entrepreneur higher than men. Women may rank these two aspirational qualities higher than men due to trainings they receive in entrepreneurship and their underutilized potential to contribute to an increased household income.

A significantly higher proportion of men reported never experiencing sexual hostility but they were also more likely to report sometimes experiencing sexual hostility compared to women. Women are more likely to report not having a workplace, suggesting that if they do, they often or always face sexual hostility. Less

than five percent of men or women justify any form of violence against women, except for men justifying hitting his wife if she refuses to have sex with him (8% for comparison and 11% for the treatment group) or talking to another man (6% for comparison and 8% for treatment group). Men tend to justify violence more than women. In the qualitative interviews, while women did not justify the violence, some indicated that violence occurs due to the fault of both the man and the woman.

Finally, when combining indicators into the pro-WEAI to measure empowerment, 15 percent of women and 43 percent of men in the treatment group were considered empowered and 66 percent of households did not achieve gender parity. The comparison group had similar levels of empowerment and gender parity. Disempowerment among both men and women is driven by their low perceived *control over the use of the income*, low *work balance*, and low *group membership*. In the qualitative interviews, men often described 'income' as a means to empowerment whereas 'education', or lack thereof, was identified as a major determining factor in women's perceptions of their own empowerment.

These baseline results suggest that overall, the treatment and comparison groups are fairly comparable at baseline which will strengthen comparison of results at the endline. When assessing empowerment, despite women facing greater disempowerment than men, both men and women face fairly high levels of disempowerment based on the pro-WEAI analysis. Some of this may be driven by the poverty (pushing households to prioritize income generation resulting in heavy workloads) and some by social norms as other household members, such as mothers/-in-law and fathers/-in-laws who may be the ultimate decision-makers regarding use of income and caretaking responsibilities for women. A ranking of decisionmakers may be helpful to unpack this dynamic.

How men interpret and/or experience mobility constraints and sexual hostility at work deserves greater attention. The results show men reporting mobility constraints and experiencing sexual hostility. This goes against assumptions one might have regarding men's greater levels of mobility (as they are often seen as the ones to restrict women's movement) and their lower levels of sexual hostility (as they are often seen as perpetrators of sexual hostility). One interpretation for the mobility constraint relates to the role that the extended family maybe be playing to restrict movement. Other male household leaders may limit movement during the day (such as requiring family members to labor on the farm versus attend to other household duties). The questions related to sexual hostility may not be interpreted as "hostility" and more like "banter".

Time allocations may under-represent women's "work" so long as women do not see their unpaid work as "work." How women interpret the concept of generating income, working, and caretaking deserves additional probing to ensure the way they interpret their activities is not over- or under-estimated quantitatively.

Finally, as the MANDI project focuses on strengthening FPOs to better support their farmer membership, particularly through greater inclusion and support to women, the fact that so few farmers report membership in groups is an opportunity to the MANDI project to make great strides in this area, but there is also the risk of not capturing this impact if how respondents identify with certain groups is not better understood. This is also an area that deserves additional attention during future research activities.

1 Background

Farmer Producer Organizations (FPOs) are private companies collectively owned by smallholder farmers (SHFs) whose aims are to provide essential services to SHFs that allow them to benefit from aggregation and the storage of produce at the last mile, to increase their bargaining power over prices for the sale of their farm produce, as well as to access inputs. However, most FPOs in Uttar Pradesh (UP), India have limited institutional connections to markets and finance, lack access to information, and are slow to adopt digital tools that could improve operational efficiency and market access. Being capital constrained, FPOs also struggle to procure and aggregate agricultural commodities, pay farmers upfront for their produce, and meet their members' needs for additional financial services such as savings and insurance. With an average female membership of 7-8 percent, FPOs also perpetuate the exclusion of women from collective organizations and services that could increase their visibility in agricultural activities, their decision-making power over agricultural incomes, their access and use of financial services and market linkages, and their overall economic well-being.

To address these challenges, Grameen Foundation USA (GFUSA) and its Indian subsidiary, Grameen Foundation India (GFI) (together, Grameen) are assisting 40 FPOs in the Purvanchal region of UP, India through a Walmart Foundation-funded "Market Access eNabled by Digital Innovation" (MANDI) project.

2 About MANDI

The MANDI project aims to strengthen the capacity of 40 select FPOs to connect SHFs, especially female farmers, to markets and finance in order to improve their incomes and resilience. The project supports 10,000 SHFs, including at least 4,000 female farmers, working across several value chains such as wheat, paddy, vegetables, and other crops to improve their access to extension services, market opportunities, and financial services. The Theory of Change (ToC) for the MANDI project is: "IF the capacity of FPOs to leverage digital technology and data, address gender dynamics, and deepen access to finance for their members is strengthened, and IF FPOs are sufficiently capitalized, THEN smallholder farmers, especially women, will gain improved access to targeted extension services, market opportunities and financial services THAT WILL enable them to diversify and intensify their production LEADING TO improved incomes and resilience."

Having initiated the project in December 2020, Grameen conducted a landscape assessment to understand cropping and intercropping patterns in the area and identify opportunities to boost household incomes through diversification and intensification strategies that enhance the importance of crops grown by women. The research assessed the market opportunities, distribution of FPOs and their female membership, power relations and revenue distribution among actors, and potential linkages to financial, agricultural, and technology service providers. These research activities in turn informed the technical assistance activities for the FPOs, which include a) assisting FPOs in the creation of Capacity Development Plans (CDPs) and contributing toward their implementation through Catalyst Awards (financial grants awarded to the FPO); b) conducting gender training, supporting FPO gender mainstreaming activities, and facilitating linkages to women's self-help groups (SHGs), and facilitating gender dialogues among SHF households to promote gender inclusion; c) and training FPOs to improve their capacity for data collection for decision making and for forging linkages with market actors, and financial and technical service providers. A network of last-mile female agents called 'Grameen Mittras' are also on-boarded that facilitate digital payments and other financial services, as well as deliver financial education to farmers.

The Applying New Evidence for Women's empowerment (ANEW) research led by the International Food Policy Research Institute (IFPRI) and funded by the Walmart Foundation supports Grameen in expanding the scope of research for the MANDI intervention as well as deepening its learning agenda. The research

in particular seeks to test the hypothesis that "fostering intra-household decision-making leads to the improved market orientation of smallholder farmers and women's engagement and empowerment levels in agriculture". Moreover, the research supports the pilot of the new project-level Women's Empowerment in Agricultural (pro-WEAI) tool that aims to deepen the assessment of women's inclusion in markets and value chains, known as the pro-WEAI plus Market Inclusion (pro-WEAI+MI) tool. The MANDI project is suitable for piloting the new pro-WEAI+MI indicators given the extensive and integrated interventions that aim to enhance FPOs and promote women's empowerment in UP. By choosing to focus on gender-responsive value chains and implementing several activities that address gender dynamics within FPOs and farmer households, such as conducting a Gender and Power Dynamics Training for FPO management, supporting their gender mainstreaming efforts, and facilitating community-based gender dialogues, Grameen aims to improve women's decision-making power and control over the use of income and outputs from the selected value chains, build FPO and SHF entrepreneurial mindset, and mitigate the risk that gender-based violence and workplace hostility is exacerbated or unaddressed by FPOs and SHF households.

3 Research approach and methodology

3.1 Research design

The research adopts a pre- and post-intervention, quasi-experimental design with a mixed-methods approach to data collection. The quantitative research includes administering the new pro-WEAI+MI tool with 1,000 households (1,000 men and 1,000 women across a treatment and comparison group, resulting in 500 men and women in each the treatment and comparison groups) and the qualitative research includes administering tools such as key informant interviews with FPO board members and members, seasonality calendars, life histories, and gender balance trees to understand the nuanced context and factors influencing empowerment levels at baseline and endline rounds.

Grameen selected 500 households¹ using a multi-stage random sampling technique in each of the intervention and comparison arms of this research study. An adult female and male member in each household was interviewed. The cohort surveyed during the baseline will be revisited during the endline to have a panel dataset. The panel design helps account for any of the unobserved time-invariant characteristics across both rounds of survey thereby, increasing the robustness of the research.

The overall evaluation design will leverage the Difference-in-Difference (DiD) technique to assess the attributable impact of the MANDI project on the outcomes pertaining to women's empowerment. The matched pair of households across the project and comparison groups will help in the estimation of the net effect of the program. Grameen uses the a-priori and Propensity Score Matching (PSM) technique to address the selection bias inherent in a quasi-experimental design. For the a-priori matching, FPOs in the comparison group were selected using the following indicators: commodities managed by FPOs, last year's turnover, number of total members, geography, and year of establishment. From this, Grameen was able to identify ten matched pairs (treatment and comparison) of similar FPOs spread across the UP districts of Azamgarh, Mirzapur, Prayagraj, and Pratapgarh. Furthermore, using PSM, individuals in the treatment and comparison group will be matched during endline analysis to have a balance and comparable study groups. For the PSM matching Grameen will consider some of the socioeconomic indicators like demography, age, education, and poverty probability levels.

Grameen adapted the pro-WEAI+MI instrument to the local context as it is a critical step to ensure the appropriateness and relevance of the questions. On finalization of the survey tool, it was translated into the

¹ Using the G*Power tool, power calculations were done to assess the statistical significance of the proposed sample size. The sample size for the study was calculated at a 99% confidence level and a confidence interval of 1%. The effect size for the study is considered 0.2 which is considered modest and the sample size was found to be 449. An additional buffer of ~10% has been included to take into account factors such as attrition and non-response.

vernacular local language (Hindi) and was piloted to test the flow, ease of understanding, and appropriateness. Based on the feedback generated during this process, the tool and translation were updated before the actual implementation.

3.2 Research scope and level of evaluation

The focus of the evaluation under the ANEW research is to:

- Assess change in the level of women's and men's empowerment through participation in the MANDI project.
- Identify indicators contributing to the empowerment and disempowerment at the baseline which can inform the project design.
- Pilot women empowerment indicators using the latest pro-WEAI+MI tool and assess the applicability of such a tool for future evaluations.
- Document learnings on successes and failures for informing future program designs at Walmart Foundation, IFPRI, and Grameen.

3.3 Ethical considerations

The research study adheres to rigorous ethical standards and necessary approvals before initiation of any ground work. The research team made an appeal to Sigma-IRB India, an Institutional Review Board (IRB), to review the ethical sanctity of the study. After careful examination of the research objectives and study protocols, the IRB approved the ethical standards of the research and shared the approval letter on October 4th, 2021².

Ethical practices were adopted all through the research process starting with training of the data collection team (enumerators and supervisors) to recruiting the research participants and use of data. The data collection team was carefully trained on how to introduce themselves to the participants, explaining the purpose of the survey, how the information would be used, the participant's voluntary participation and freedom to exit/refuse participation at any stage without consequences. This was all done as part of obtaining informed consent from the study participants before onboarding them for the research.

The field team was also oriented on respecting cultural norms and practices prevailing in the study geography. The team also ensured that the participants were comfortable with them and the location of survey was decided by the participants. The field team had a mix of male and female enumerators so that male enumerators administered the survey with male participants and vice-versa. At the end of the discussion, the team thanked the respondents for their time, effort and interest in providing responses to the survey.

The research team ensures that the data collected are properly handled and strict privacy protocols are kept in place. At no point in time, any form of personal information like name, contact details of individual participant will be used during the reporting and the responses will always be anonymized.

3.4 Study limitations

The research team identified some of the limitations that the study experienced. Some of the FPOs didn't have a record of their shareholder farmers or the members. Again, in some cases, the record sheet was not digitized and the names of the members were written in physical registers which was not frequently updated. This created challenges during the sample selection process. The sampling frame for selection of study participants was done on the basis of latest record sheet that the FPO could provide which in many instances were not updated. Again, as the pro-WEAI+MI tool was to be surveyed with both men and women from the same household, the field team faced challenges during data collection. The team gave first priority to those households where both men and women were present at the time of survey. Again, in some

² IRB approval letter can be furnished on request.

situations it was difficult to have isolated interactions with men and women and the field team skipped such households. This may have compromised the random selection of study participants. Furthermore, the survey modules had sensitive questions around sexual hostility and domestic violence which were uncomfortable both for the enumerators to probe and the participants to provide responses. While the enumerators were properly trained on how to ask such questions and make the participants comfortable, the research team believes there was a certain level of inhibition and fear among some of the enumerators to ask those sensitive questions which may have affected the quality of the interview and data collected. Finally, the pro-WEAI data shared in this report was provided by IFPRI from their initial analysis and was opportunistically added to this report as it neared finalization. Grameen did not have access to the analytical files to provide any greater depth of information than what is presented here. At the time of writing this report, IFPRI was holding a workshop to gather input on some of the data points that may influence how the final analysis of these and the files related to the pro-WEAI+MI are completed. This may influence how baseline and endline results are compared later.

3.5 Research methods

3.5.1 pro-WEAI+MI tool

IFPRI developed the pro-WEAI to measure the impact of agricultural development interventions on women's empowerment. Empowerment is expressed in terms of resources, achievements and agency.³ Resources include access to and future claims to material, human, and social resources. Agency is defined in terms of decision-making and negotiation regarding use of financial resources, food, housing, education as well as personal appearance and agency to take care of oneself and others. Achievements reflects in terms of well-being outcomes.

The pro-WEAI has 9 indicators that are mapped to three empowerment dimensions of agency: intrinsic agency (power within), instrumental agency (power to), and collective agency (power with). "Power over", which is often another well-noted dimension of empowerment, is not included in the index because this concept of power suggests that a woman gains power at the expense of men losing power, which can be threatening. Table 1 below summarizes the dimensions of empowerment and the associated indicators.

In the calculation of the pro-WEAI index, each respondent is classified as either adequate (=1) or inadequate (=0) in a given indicator with a given threshold. For example, in Table 1 below, under "Ownership of land and other assets" a respondent would be classified as adequate (=1) if they indicated they either solely or jointly owned at least three small assets, OR at least two large assets, OR owned land. Each indicator is equally weighted, and a person is defined as empowered if she or he is empowered in at least nine of 12 indicators, or 75 percent.

The pro-WEAI is then constructed, by aggregating the individual scores into two sub-indices. These indices include the Three Domains of Empowerment Index (known as the 3DE) which carries 90 percent of the weight of the index and the Gender Parity Index (GPI) which carries the remaining weight of 10 percent. The 3DE measures women's empowerment across three domains of intrinsic agency, instrumental agency, and collective agency. The GPI reflects the percentage of women who are empowered or whose achievements are at least as high as the men in their households. Improvements in either the 3DE or the

³ Meinzen-Dick R, Rubin D, Elias M, Mulema A, Myers E. 2019. Women's Empowerment in Agriculture: Lessons from qualitative research. IFPRI Discussion Paper. Washington DC: International Food Policy Research Institute. http://www.ifpri.org/publication/womens-empowerment-agriculture-lessons-qualitative-research:; Malapit H, Quisumbing A, Meinzen-Dick R, Seymour G, Martinez E, Heckert J, Rubin D, Vaz A, Yount K. 2019. Development of the project-level Women's Empowerment in Agriculture Index (pro-WEAI). world Development. yolume 122, Pages 675-692. https://doi.org/10.1016/j.worlddev.2019.06.018

⁴ Malapit H, Quisumbing A, Meinzen-Dick R, Seymour G, Martinez E, Heckert J, Rubin D, Vaz A, Yount K. 2019. Development of the project-level Women's Empowerment in Agriculture Index (pro-WEAI). <u>World Development</u>. <u>Volume 122</u>, Pages 675-692. <u>https://doi.org/10.1016/j.worlddev.2019.06.018</u>

GPI will improve pro-WEAI scores. The quantitative pro-WEAI instrument is open access and available elsewhere.⁵

Table 1: pro-WEAI domains, indicators, and adequacy thresholds

Indicator	Definition of adequacy						
Intrinsic Agency							
Autonomy in decision making	A Relative Autonomy Index (RAI) score is calculated by summing responses to the three vignettes about a person's motivation for how they use income generated from agricultural and non-agricultural activities (yes=1; no=0), using the following weighting scheme: 0 for vignette 1 (no alternative), -2 for vignette 2 (external motivation), -1 for vignette 3 (introjected motivation), and +3 for vignette 4 (autonomous motivation). A person is considered adequate in the autonomy of income if they are more motivated by their own values than by coercion or fear of others' disapproval. RAI score > 1.						
Self-efficacy	"Agree" or greater on average with self-efficacy questions. They are considered adequate in self-efficacy if their score >=32.						
Attitudes about intimate partner violence against women	Believes husband is NOT justified in hitting or beating his wife in all 5 scenarios: 1) She goes out without telling him 2) She neglects the children 3) She argues with him 4) She refuses to have sex with him 5) She burns the food						
	Instrumental Agency						
Input in productive decisions	Meets at least ONE of the following conditions for ALL of the agricultural activities they participate in 1) Makes related decisions solely, 2) Makes the decision jointly and has at least some input into the decisions 3) Feels could make a decision if want to (to at least a MEDIUM extent)						
Ownership of land and other assets	Owns, either solely or jointly, at least ONE of the following: 1) At least THREE small assets (poultry, non-mechanized equipment, or small consumer durables) 2) At least TWO large assets 3) Land						
Access to and decisions on credit	Meets at least ONE of the following conditions: 1) Belongs to a household that used a source of credit in the past year AND participated in at least ONE sole or joint decision about it 2) Belongs to a household that did not use credit in the past year but could have if wanted to from at least ONE source 3) Has access, solely or jointly, to a financial account						
Control over use of income	Has input in decisions related to how to use BOTH income and output from ALL of the agricultural activities they participate in AND has input in decisions related to income from ALL non-agricultural activities they participate in, unless no decision was made						
Work balance	Works less than 10.5 hours per day: Workload = time spent in primary activity + (1/2) time spent in childcare as a secondary activity						
	Collective Agency						
Group membership	Active member of at least ONE group						

Source: Malapit et al, 2019

The pro-WEAI+MI tool adds to the pro-WEAI dimensions of workplace safety, sanitation, and work environments including menstrual hygiene. In addition, to the existing dimensions of decision-making power, access to financial services, time allocations, group membership & collective agency, mobility, self-efficacy, and attitudes towards violence against women, the pro-WEAI+MI adds questions related to participation in value chains and women's roles and attitudes towards their environment in agricultural activities. The pro-WEAI+MI provided by IFPRI was translated into Hindi in August 2021.

⁵ https://weai.ifpri.info/versions/pro-weai/

This report covers key indicators from this instrument and provides preliminary results from the initial analysis conducted by IFPRI during the drafting of the report. The endline assessment will cover and compare results from the pro-WEAI+MI baseline and endline surveys more in depth.

3.5.2 Qualitative research methods

Given Grameen had implemented the pro-WEAI in Burkina Faso⁶ and Ghana⁷ prior to piloting the pro-WEAI+MI, Grameen adapted the existing qualitative interview tools to complement its quantitative and created new ones, such as key informant interview guides to interview FPO board members as well as FPO members and their spouses. The original set of qualitative tools was conducted during the MANDI project baseline which preceded the pro-WEAI+MI assessment by approximately five months.

The MANDI baseline occurred in August 2021 while the pro-WEAI+MI was started in December 2021 and completed in January 2022. During the MANDI project baseline, a total of five FPO board members were interviewed to gather basic information on the FPO such as when it started, its total membership, the challenges faced by the FPO broadly, and then its perspectives around women's board membership and women's total participation in the FPO. A total of 16 interviews with FPO members and their spouses were conducted to gather insights on their membership in the FPO, the benefits received, and perceptions of women's involvement in the FPO. These initial interviews served to assess the barriers and opportunities to women's participation in FPOs.

After the pro-WEAI+MI quantitative baseline was completed, additional qualitative interviews were conducted to document the life histories of FPO members and their spouses (Life Histories tool), the division of labour of various agricultural and household activities (Gender Balance Tree tool), and the seasonality issues related to various agricultural value chains and household activities (Seasonality Calendar tool). Eleven Life Histories, three Seasonality Calendars, and three Gender Balance Trees were completed. Where appropriate, key findings from these qualitative interviews are integrated throughout this report.

⁶ Kieran C, Gray B, Gash M. Understanding Gender Norms in Rural Burkina Faso: A Qualitative Assessment. Washington, DC: Grameen Foundation. https://grameenfoundation.org/documents/Understanding_Gender_Norms_Baseline_Qualitative_Assessment_BRB.pdf
⁷ Abdu A and Gray B. 2020. Understanding Gender and Empowerment in Cocoa Farming Communities in the Brong Ahafo Region of Ghana: Baseline Qualitative and Quantitative Assessment. Washington, DC: Grameen Foundation. https://grameenfoundation.org/documents/FarmGrow-Gender_Empowerment_Cocoa-Farming-Communities_Brong_Ahafo_Ghana_FinalFG.pdf

4 Profile of the respondents

4.1 Household profile

Across both treatment and comparison groups, the average household size was found to be six members and 'agriculture' was reported as the primary source of income (deriving more than 50 percent of total household income). The other sources of income reported for the households were wage labour (farm and non-farm), salaried jobs, micro-enterprises, and pensions.

The survey findings show that as per the National Poverty Line (NPL) estimates derived from the use of the Poverty Probability Index (PPI), 13 percent and 12 percent of the respondents across the treatment and comparison groups, respectively, were below the national poverty line. Whereas, 13 percent and 11 percent of the respondents across the respective study areas had a daily income less than USD 1.25 and about 60 percent and 56 percent of respondents had a daily income less than USD 2.5 across the respective study areas.⁸

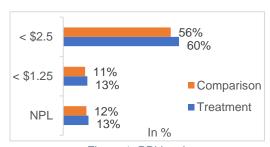


Figure 1: PPI levels

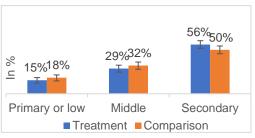


Figure 2: Education level of HH female head

The average age of the respondents varied across gender, with no statistically significant difference observed across treatment and comparison groups. For males, the average age was found to be 52 years, while for women it was found to be 46 years across both treatment and comparison groups. In addition, around 56 percent of the female household heads in the treatment and around 50 percent in the comparison group (with no significant difference) reported having completed secondary level or higher education.

Coming to the digital profile of the respondents, ownership of mobile phones and especially smartphones can help individuals to get access to a wide gamut of information including information that can help them in their incomegenerating activities. However, at the baseline, it was found that there is a huge dichotomy in terms of digital profiles between men and women. The ownership of mobile phones for women in both treatment and comparison areas is around 45 percent while for men it is around 82 percent, and this is statistically significant.

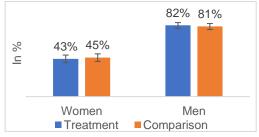


Figure 3: Ownership of mobile phones

Again, in terms of access to smartphones, 34 percent of women in treatment and 45 percent in comparison areas have access while 47 percent of men in treatment and 51 percent in comparison have access. We find that men have a higher level of access compared to women though the difference is not statistically significant.

⁸ It is important to note that the PPI used for this study is relatively old, as the PPI for India has not been updated since 2016. However, this is the best estimate for household poverty among the sampled population. Also, note that the World Bank has since updated the poverty lines and \$2.50 is no longer an international poverty line and has since been replaced with the \$3.65 poverty line: https://blogs.worldbank.org/opendata/updating-international-poverty-line-2017-ppps

4.2 Agricultural profile

The FPOs primarily support small and marginal farmers and the study sample resonates with that. Based on landholding⁹ patterns, the farmers are classified into four categories: marginal, small, medium, and large farmers. It is found that the majority of the farmers in the treatment and comparison groups belong to small and marginal land ownership categories i.e., farmers have a landholding up to two hectares. Only 4 percent of farmers having landholdings larger than two hectares in the treatment group and 8 percent in the comparison group. The average landholding of farmers in the treatment area is 1.0 hectares while in the comparison area it is slightly higher at 1.4 hectares.

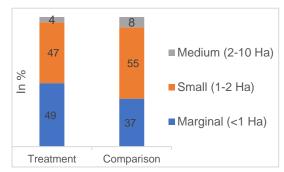


Figure 4: Farmer type

In terms of commodity, observations from the seasonality calendars show that farmers in the study area cultivate year-round and there are three important cropping seasons viz. Kharif (June through November), Rabi (November through March), and Zaid (March through June). The primary crops cultivated by farmers across both treatment and comparison groups are paddy in the Kharif season and wheat in the Rabi season. The secondary crops cultivated in both seasons differ across the treatment and comparison groups. Again, in the Zaid season, there are differences in cropping patterns with farmers in the treatment group primarily cultivating okra while farmers in the comparison group cultivate bitter gourd. The table below maps the cropping pattern across the study locations as observed from the seasonality calendar exercises.

Table 2: Cropping seasons and crops grown

Season	Treatr	ment	Comparison		
Season	Primary	Secondary	Primary	Secondary	
Kharif (Jun-Nov)	Paddy	Sorghum	Paddy	Lentils	
Rabi (Nov-Mar)	Wheat	Chickpea/Potato	Wheat	Green Pea	
Zaid (Mar-Jun)	Okra	N/A	Bitter gourd	N/A	

The seasonality calendar exercises, which were conducted with men and women in three different communities (one seasonality calendar conducted in a treatment community and one in a comparison community in Prayagraj ¹⁰and one calendar in a treatment community in Varanasi), also shows that men in the treatment community in Prayagraj migrate during the Zaid season if there are economic troubles in the household while men in the comparison group migrate during the latter half of the Kharif season into the Rabi seasons. Men and women both also participate in Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA)¹¹ work during the Zaid season, in both treatment and comparison communities. MGNREGA work is in Indian labour law that guarantees rural households at least 100 days of guaranteed wage employment each year to adult members who can conduct manual work. In contrast, households in Varanasi migrate most often during the Kharif season.

When assessing men and women's involvement in microenterprise activities (such as general stores, tailoring, tool repair shops), men participate in these activities throughout the year while women report supporting these microenterprises when the men are not available. Women are in charge of dairy farming

⁹ Source: <u>https://pib.gov.in/Pressreleaseshare.aspx?PRID=1562687</u>

¹⁰ Until 2018, Prayagraj was known as Allahabad.

¹¹ Mahatma Gandhi National Rural Employment Guarantee Act, 2005. Republic of India. https://rural.nic.in/sites/default/files/nrega/Library/Books/1_MGNREGA_Act.pdf

throughout the year, with the support of men; men are most likely to engage in carrying the feed to the cattle and transporting milk to the booth¹². Women also participate in agricultural labor work throughout the year while men do not.

Months with the greatest expenditures for the household are in the first month of the Kharif season and the last two to three months of the Kharif season. September through November of each year represent periods of the year where expenditures for celebrations dominate and may compete with expenditures related to livelihood investments such as for paying on loans and purchasing inputs for the upcoming agricultural production cycle.

When assessing the division of labor across the year comparing men and women, men are involved in land preparation in the first month of each season (with women supporting or equally contributing), in fertilizer and pesticide application, and some irrigation during the middle months of each season, and selling of produce the last month of each season, while women lead sowing at beginning of each season, weeding and harvesting throughout the season, and post-harvest activities in the last month of each season. In individual interviews with women regarding post-harvest activities, one woman shared she makes decisions about post-harvest processing or value-add activities "...as I am aware of the requirement or food grains for home consumption" but does not "interfere in this matter as my husband sells the produce where most of the farmers sell."

5 Results

5.1 Role in decision-making around livelihood activities

The quantitative data shows that the farmers across both treatment and comparison groups are engaged in multiple income-generating activities (IGA), as the agricultural profile above also suggests. While women are slightly less likely to report participating in activities related to the primary and secondary commodities and rearing large livestock¹³, they are only a few percentage points behind men in all activities, with more than 94 percent of men in treatment and comparison groups reporting being involved in primary and secondary commodities and above 83 percent of men reporting rearing large livestock in last 12 months.

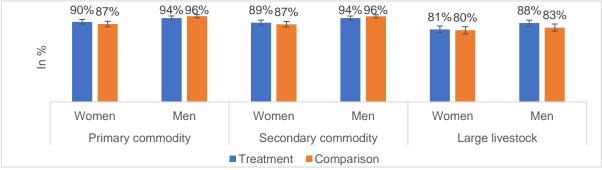


Figure 5: Participation in IGA in the last 12 months

FPO members substantiated this close level of participation when asked about their roles in the agricultural activities in the household. One male farmer in Varanasi noted that he participates in "all the activities required in farming" as part of household agriculture. A woman in the same community reported that "I do all the agricultural activities required." Another female farmer from Prayagraj shared similar sentiments,

¹² Booths are usually the collection centres where milk is aggregated at the village level and then later transported to nearby chilling centres from where it is treated, packaged, labelled, and distributed for sale. In some cases, producers also sell milk directly to local buyers instead of selling it to milk companies (via booths)

¹³ The pro-WEAI tool asks about several IGAs but only three of them are captured here.

saying that she does much of the "harvesting, threshing, cleaning, etc. work as a helper," while acknowledging that her husband is the decision maker for their agriculture activities.

Decision-making goes a step further than participation where the person decides what actions need to be taken. The study findings show that men play a greater role in decision-making related to IGAs compared to women. When asked about whether the respondent participated in a decision related to these activities in the last 12 months, men were more than 20 percentage points more likely to report taking a decision in the commodities and slightly under 20 percentage points when asked about large livestock. FPO members made this point as well. As one male FPO member in Varanasi puts it: "I take the decisions. What to grow and what not, I decide...I feel right about it." Even when one farmer reported that both he and his wife participate in household agriculture decision-making, he also said that "sometimes I feel I should have more influence."

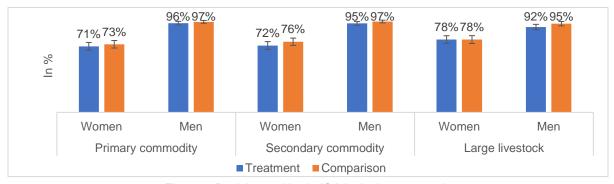


Figure 6: Decision-making in IGA in the last 12 months

Among respondents who took decisions related to multiple livelihood activities in the last 12 months across both treatment and comparison groups, we see that women were more likely to report little to no input into decisions than men. In the qualitative research, one female farmer shared how the decisions are out of her control as her "father-in-law takes all the decisions related to agricultural activities." However, more than 70 percent of women still report input into some, most, or all decisions. Though no women reported that they alone make decisions about agriculture activities in the home, women in Varanasi did share that they "take decisions together" with their husbands and "take consultations among ourselves before taking any decision."

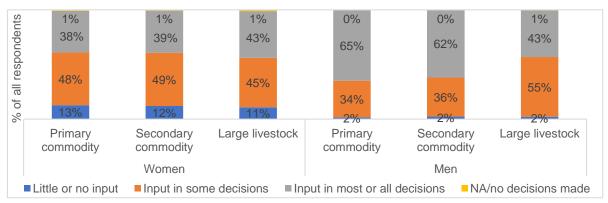


Figure 7: Level of input in decision-making

The study respondents were also asked to report on the level of input they think they can have if they want to when it came to making decisions around multiple livelihood activities. Among those women reporting little to no input in decision-making, this appears to align with a similar percentage perceiving that even if

they wanted, they would not have any input into decision-making. Men are much more likely to perceive having a medium to high extent of input into decisions if they want in comparison to women. Male FPO members, for example, were more likely to claim all or most of the decision-making power. One male farmer reported that "I only take the decision…and everyone follows me," a sentiment shared by many other men and women.

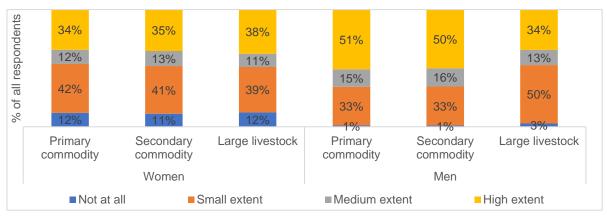


Figure 8: Perception of input in decision-making

In addition to this, the study respondents were also asked to report the level of input they have in making decisions related to the sale of produce and the use of income earned from the sale of produce. The results show that while a larger proportion of women compared to men report little to no input into decisions made regarding the sale of produce, a considerable proportion of women reported they have some input or most input. The qualitative interactions with the women farmers also reveal that women often make decisions about "how much of the produce was to be kept for household consumption and how much was to be sold off in the market." A woman farmer from Varanasi shared that she "has better knowledge of the quantity of crops that her family needs" and that her husband often takes care of "where to sell the rest of the crops and at what rate."

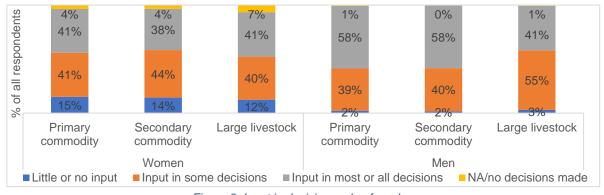


Figure 9: Input in decision- sale of produce

Similar to previous results, women are more likely to report having little to no input in the use of income earned from sale of produce compared to men; however, interestingly, men are not reporting having input into all decisions, suggesting that someone other than himself and his wife or the woman in his household is making the decision (such as a father). Reports from women in both Prayagraj and Varanasi make this clear. One woman described how, in her home, decisions "are made by the elder person of the family such as the father-in-law" in nearly all situations.

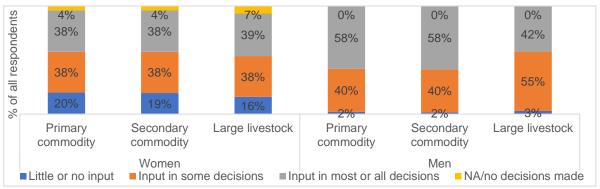


Figure 10: Input in decision: Use of income

In some cases, women wanted more decision-making power, but this challenged social norms about women's roles. As one FPO member spouse shared, "I want to do some backyard farming but my husband doesn't allow me as he thinks if women are involved in farming, it will reduce the status of the family in society."

5.2 Access to training/information

The study participants were asked to report on the kinds of trainings or information they received around various livelihood activities. The study result shows that relatively low levels of men and women reported receiving training related to the top two commodities and large livestock at the time of baseline. The comparison group reported receiving less training than those in the treatment group, however, the difference is marginal and not significant in all cases.

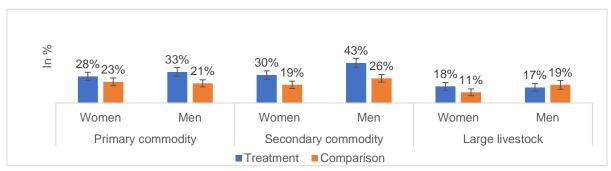


Figure 11: Received training/information on IGA

While data is not shown here, when accessing training or information related to the primary commodity, men were most likely to say they received this information from the FPO and a government extension worker. Women were also likely to state the FPO as a source, but the second most reported source was family or friends.

The qualitative interactions also show that farmers receive information about agricultural practices and crop details on their phones though some prefer they had access to smartphones. "I don't use a smart phone so that I can't extract any benefit out of it. I use black and white hand set and I receive communications from Agriculture department via SMS," shared a farmer from Varanasi district, but he believes in the utility of a smartphone, "through smartphones people can share their experiences regarding agriculture and it will help to adopt the successful practices for mass replication." Another farmer didn't have a smartphone either and noted the potential to reduce costs for seeking information, "using a mobile phone can reduce the traveling cost which was earlier required to avail any sort of information regarding agriculture."

Among those who received training, men were more likely than women to report acting on the information received compared to women, with a larger spread between men and women in the primary commodity than the secondary commodity and for large livestock. The women in the treatment group appeared to report acting on information slightly more than the women in the comparison group, however, the difference is not statistically significant.

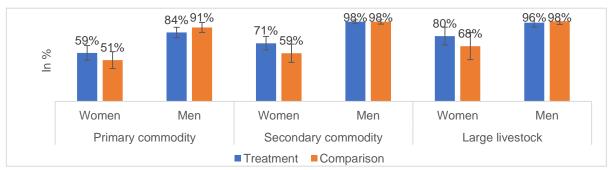


Figure 12: Decided to act on the information received

5.3 Access to digital and financial services

Access to finance is a critical driver for empowerment. Ownership of a bank account provides individuals the avenue to save and access finance whenever in need. Owing to government initiatives and schemes like the Jan Dhan Yojna, we see a high presence of access to bank accounts for both male and female farmers. The male farmers in both treatment and comparison groups, however, have significantly higher access to bank accounts compared to female farmers. The qualitative interactions with the farmers also revealed that men are more inclined to carry out financial

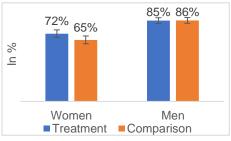


Figure 13: Access to bank accounts

transactions compared to women as one male farmer in Prayagraj shared he "visits the nearby bank and uses his savings account to carry all form of transactions be it withdrawal, deposit, or money transfer."

Differential access to digital devices in turn also affects access to online payments. The research findings show that there is a significant difference in access to online payments i.e., around 16 percent of women farmers have access to online payments as against around 30 percent of men farmers. A male farmer from Varanasi shares, "I would like to receive payment through online mode because of transparency in payment."

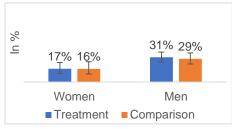


Figure 14: Access to online payments

The use of mobile phones to carry out online transactions is also affected due to this differential access. While around 11 percent of women reported access to online transactions using mobile phones in study areas, around 28 percent of men reported access to online transactions using mobile phones (data not shown).

Furthermore, people in rural India have access to assisted banking services in form of banking correspondent (BC) agents who provide door-step financial services. In assisted banking services as well, men have approximately 20 percentage points more access to BC agents as compared to women.

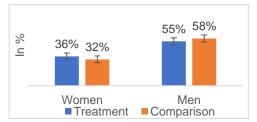


Figure 15: Access to BC agents

5.3.1 Access to credit

Loans are means to arrange immediate credit for the farmers. This credit is then used in multiple activities like purchasing farm inputs, buying assets, health, education, and meeting household daily expenses like food and utilities. While there are multiple avenues to the source of credit/borrowing, the decision on where to borrow from is usually made by considering factors like rate of interest, ease of availability, previous experiences, and duration of repayment.

The research findings showed that a primary source of credit for men was microfinance institutions followed closely by banks, while for women it was friends and family followed by SHG groups. In the twelve months prior to the survey, 16 percent of women and 39 percent of men also reported taking a loan from an FPO. The decision around which source of credit to be availed across both treatment and comparison groups was also found to be in sync with the primary source of credit. Around 97 percent men in the study areas reported taking the decision to borrow from bank which was significantly higher than women where only 63 percent took the decision. Similarly, when it came to an SHG as source of borrowing, 88 percent of women reported taking decisions to borrow which was significantly higher than men where around 63 percent took decision. A female farmer from Varanasi shares how the SHG loan helped her during the recent COVID19 pandemic. "During the lockdown when we had no source of income, we needed cash to buy food and ration items. I took support from my SHG group and borrowed 12,000 INR. I pay back every week and for every 100 INR borrowed we need to pay 2 INR as an interest to the group."

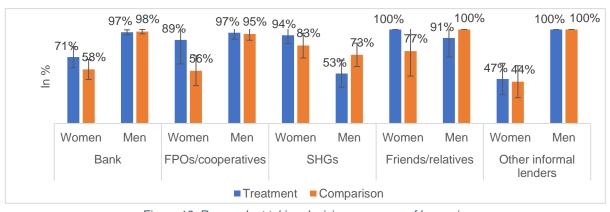


Figure 16: Respondent taking decision on source of borrowing

The study also explored the decisions around use of credit. The results show that there is differential use of credit. Women usually decide how the loan amount needs to be spent when borrowed from SHG and they tend to use these borrowed financial resources for household expenses. A female farmer from Ghazipur shares, "I take care of where to spend and how much to spend when I take loans from my SHG group." On the other hand, men used loans borrowed from banks for farm expenses. The qualitative exercise also brought out that the women usually took decisions related to household expenses while the male usually took decision related to farm expenses like seeds, rental on farm machineries (if required), fertilizers, pesticides, herbicides and other expenses incurred during agriculture. In one case, a woman mentioned that she wished she had the support of her husband to make decisions related to the household:

"I want my husband to help me to handle the financial matters like how much to save how much to spend for household purpose, etc."

Not all farmers in the study area reported availing loans because of the "risk associated in repayment of the loan." Some farmers have a fear that they "won't be able to repay the corpus if there is any crop failure." A farmer in Varanasi shared if he desperately needed a loan, he would rather take loans from informal sources like his family members or local money lenders if needed "as I can repay them in terms of produce or assets."

5.4 Time allocation

The prevailing norm in rural areas of India is that women are solely burdened with domestic chores and elderly and child care, leaving little time for income generation, social or personal/leisure time.

The chart below shows that the time allocation trends across treatment and comparison groups are similar and comparable at baseline.

The findings also show that barring sleep hours, men spend the majority of their time engaged in employment time, which captures any IGAs like agriculture and allied activities, non-farm activities (construction/wage labour), microenterprises, and jobs. There is a distinct gender gap in the time allocated to employment with male farmers reporting spending significantly more time compared to female farmers.

There is also a distinct gender gap in the time allocated to domestic chores and caring time with female farmers allocating a significantly higher time compared to male farmers. The qualitative interactions with women farmers also pointed out that they have to dedicate time towards cooking including time for collecting wood and other raw materials to be used as fuel, cleaning, and dusting houses. Besides, the women are also expected to take care of the elderly and children present in the house. One woman farmer described her experience raising young children while also working in agriculture by saying "in my family, there was a problem with work when they were small. I had to work with them."

Personal time refers to the time one has for self-care and it is an important indicator of empowerment. The findings suggest that there is a distinct difference between the personal time women and male farmers enjoy with male farmers having more time for themselves. This is usually the case because women are engaged in multiple activities throughout the day, while male farmers are usually free after their employment time is over. Interestingly, women report spending more time sleeping than men (near or more than 10 hours) despite having less personal care time. The sleep time overall is slightly higher for women and a plausible reason for that could be due to the timing of data collection i.e., during peak winter season. January and February are pre-harvest period and therefore, the working hours are generally fewer and again days are relatively short resulting in low levels of employment hours and high levels of sleep hours.

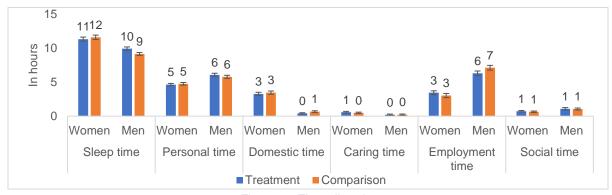


Figure 17: Time allocation

Many of the findings above were also noted by participants in the Gender Balance Trees, a methodology inspired by the GALS@Scale methodology. Gender Balance Trees are a facilitated conversation where men's and women's individual and shared roles and assets are captured. Text in green captures agrirelated activities; text in red captures allied activities and text in black represents household activities. The activities which require stepping outside the home are captured in boxes and the length of the box represents the relevance distance that must be travelled. The activities on the right side of the tree (branches and roots) correspond to women while the activities on the left side correspond to men and the activities in the middle branches/roots correspond to both genders. As seen in the example below, women were responsible for most household activities, like cooking and caretaking, in addition to some agricultural activities such as crop planning for consumption and harvesting. Men's responsibilities revolved more around crop marketing, selling, and harvesting. Though not pictured in the Gender Balance Tree example here, men were also more likely to report time in other income-generating non-farm activities like driving and construction while women were involved in more self-employment activities.

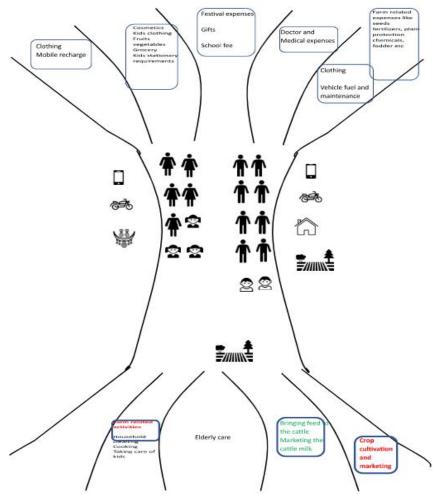


Figure 18: Gender Balance Tree mapped during the field visit

5.5 Group membership and collective agency

The prevailing social norms, especially in rural areas, make women vulnerable to various discriminations and restrictions, limiting their social, economic, and political participation at the household and community levels which in turn inhibits their access to information, economic growth, social improvement, mobility, and overall empowerment. Membership in formal and informal groups helps women fight against the

discrimination and restrictions they currently face. However, at the time of baseline, it is seen that the active membership of women is relatively low across all categories.

The graph shows that group affiliations existed for men and women across both the treatment and comparison groups, but at fairly low rates. Interestingly, active membership in FPOs and cooperatives is found to be very low for both men and women (more in the case of women). A probable explanation for this is that the tool captured only the active membership i.e., only when the member responded attending meetings and participating in discussions, he/she was considered an active member. Moreover, FPOs and collectives are subsets of agri and allied groups and there might be incidences where the respondent has reported membership in 'other agri and allied' groups in place of 'FPOs/collectives.'

The figure below also shows that men and women generally report a low degree of group identity as there are only a few male and female farmers who feel that FPO members agree on new goals to advance together as a group.

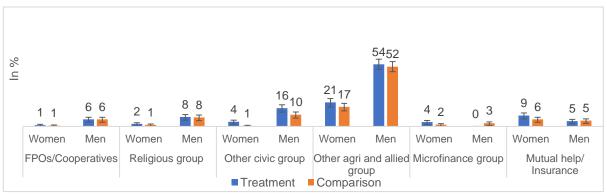


Figure 19: Active group membership

Some male FPO members noted the limited time they've been members and that so far, they've received little benefit which may explain the quantitative results above. An FPO member from Varanasi shared he joined the FPO one year prior and "...have attended only one annual general meeting (AGM) till date. There I got several information regarding organic farming... I am not aware of various benefits to be availed from FPO." A member from the same FPO expressed his opinion on the incentive for farmers joining (or not): "The farmers only seek for monetary benefit but the FPO till now has not started functioning full-fledgedly so members are not getting any benefit and that is why they are reluctant to pay the share money also." This highlights the challenge new FPOs face: to grow membership, they need to provide immediate benefit; without immediate benefit, farmers are reluctant to contribute financially to the membership. A member of an FPO board of directors lamented, "At present, we are not conducting AGMs or any other type of meetings so I think there is no point in calling over the members if the FPO is unable to provide any profit to them."

The group membership of women in women's collectives like SHGs is also muted and a probable explanation for that is the responses are divided across 'microfinance groups' and 'mutual help groups.' Also, some of the SHGs that are more matured and carry out agricultural or allied activities as a collective (including the ones that are engaged in food processing activities) might recognize their membership under 'other agri and allied group'. Furthermore, some women might not recognize SHG membership as either 'microfinance groups', 'mutual help groups' or 'other agri and allied groups' and thereby not provide any response.

The qualitative interactions with board members of one FPO also show that women's leadership roles in an FPO is likely tokenized and not active. An FPO board of director member in Varanasi shared, "One board member is a woman and she is not contributing to FPO activities as her husband is a member of the FPO and he only actively participates in FPO activities...We want more women in leadership positions. We

want to encourage women from our community to join our board and participate in discussions. But, in UP, women don't want to step out of their homes, and at times, they are not encouraged by their family members."

Moreover, the prevailing social norms in rural Uttar Pradesh areas prohibit women from stepping outside their homes alone and voicing their opinion in public. Interactions with some of the women also reveal that they do not want to go against their husband's wishes as that will create problems in their marriage. One FPO member's spouse noted, "there will be some resistance from my family as it is against the social rules where women have less freedom to go out and participate in such activities." One woman was simply not aware of the role of the FPO or her "husband's involvement because as he rarely discusses with me regarding the FPO." However, she was interested in joining the FPO, especially "if there is any profit seen, definitely I will become a member even if I need to pay the share money. But I presumed that my husband will not give the consent as he dislikes any kind of social interaction associated with me." Another woman from Prayagraj shares shared that she "doesn't want to be the only female board member in her FPO as there is only one leadership position for women."

A spouse of an FPO member in the Ghazipur district shared, "women are willing to take part if they are given some sort of responsibility." When asked about balancing FPO participation and household chores, she also shared, "yes, women can manage both the household chores and other group activities." However, as one farmer in the Bhadoi district indicates, his wife is not a member of the FPO because of her lack of understanding, and also because "she is a member of SHG," which means "she also has a time constraint." However, group membership, of any kind, has to matter. One FPO member's spouse shared, "No, I don't have any desire to be a member of [the FPO] as I am busy with my household activities. Moreover, I was associated with an SHG group but it became non-functional, and since then I have lost my interest in such groups. There will be some resistance from my family as it is against the social results where women have less freedom to go out and participate in such activities."

Another farmer noted the proximity of the FPO mattered to him for his wife's participation, "If there is any financial benefit for the women and the FPO meetings are being conducted at nearby places, I will definitely allow the women members of the family to be a part of it." A male farmer noted the proximity of FPO services also mattered to him, "Presently I purchase inputs from local private shops as it is only 100 meters away from my residence, whereas the input center of FPO is 10 kilometers away. So, it is based on feasibility. We will put up the issue in AGM so that there must be some way out to make the inputs available at the doorstep of the members."

An FPO male member shared that one of the reasons why women are not members is because they do not want to pay a share for their membership and receive little support and he was generally supportive of the idea of other women being members, but he would "not permit the female members of my household to be a part of the FPO as due to complexity, women won't be able to understand the functioning of the FPO. Male members are the frontier of any social activities and the women should follow them and according to me from each household, there should be only a single member of FPC."

In some FPOs where the women members have participated, the board members are quite hopeful of the FPO's functioning. Women are often engaged in activities like packing, sorting, grading, or creating value-addition to the produce and creating marketable food items. As one board of directors in Varanasi shared, "...our women producers are very active and they know how to process agricultural produce to create packaged food items like papad, badi, etc. The FPO is ready to promote and sell the produce under its brand if we are given guidance." Some male FPO members are also supportive of their wives as they acknowledge their contributions to the household, "I feel women contribute nearly about 70 percent in household management so their opinion also matters in FPO activities and they should actively participate in it." One male member felt that land ownership matters, "Put some land in the name of the woman to make them more powerful to increase their participation."

5.6 Mobility and freedom of movement

'Freedom of movement' refers to the freedom a person has to go to any place of their choice outside their home be it to the market, medical centers, social gatherings, religious institutions, etc. In the Indian rural context, there are multiple factors that undermine the agency of women which in turn influences their mobility.

The research findings reveal that women across both treatment and comparison groups face discriminating restrictions for all sorts of activities requiring them to step outside the house compared to men. The table below shows that even for IGAs, women face some form of restrictions to their mobility which is significantly higher compared to men. Interestingly, men were reporting mobility restrictions as well, particularly related to going to social gatherings and the market. When qualitatively interviewed, none of the men mentioned facing any mobility constraints.

The qualitative findings reveal that while women can step outside their homes if they want to, they are required to first gain permission from their spouse or head of the family members. Again, in many cases, women also reported that they are not allowed to visit a place independently and they are required to be accompanied by a friend or family member. This is primarily due to prevailing patriarchal norms, especially in rural parts of India. The norms are so deep-rooted and ingrained in people's minds that even women feel it is justified for them to seek permission or be accompanied by someone whenever they step outside. A woman farmer in Varanasi shared, "I go to the market or temple or any place I want to go, but I always tell my husband where I am going. If he says no, or says he will go with me, I have to obey. Why would I go to a place against my husband's will? It is for my own benefit and protection and I like when someone is with me when I go somewhere."

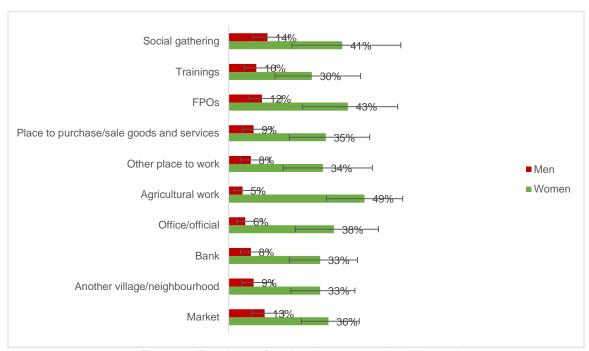


Figure 20: Restrictions faced by the spouse, other HH members

5.7 Aspirations and future self

Aspirations refer to one's preferences and individual goals for the future. Aspirations can be across various themes be it income, product quality, social status, etc. It is theorized that women with higher aspirations will take a higher role in decision-making within the household as well as outside thereby, increasing their agency and empowerment. Similarly, women with a lower level of aspiration will underutilize the available resources and opportunities presented to them thereby, realize suboptimal outcomes.

The study respondents were asked to rank four aspirational qualities by imagining the distribution of 20 beans across four distinct squares according to their relative importance. No bean in a square means the respondent does not attach any importance to that aspiration and a higher number of beans in a square means they attach significant importance to it. The four aspirational qualities that the respondents were asked to rank were: annual household income, quality of the product, ability to negotiate, and social status as an entrepreneur.

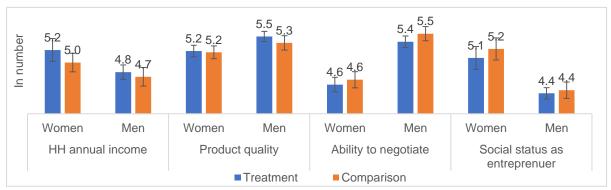


Figure 21: Aspiration score

The results show that men assign a higher aspiration to the 'ability to negotiate' compared to women. The field visits also show that men were mostly responsible for the selling of produce which included decisions around the selection of seller and negotiating the selling price and therefore, assign a relatively higher rank to 'ability to negotiate' as that has a direct implication on the price realization. Furthermore, women assign a higher aspiration to 'social status as an entrepreneur' compared to men. A plausible explanation for this is, women often are engaged in small microenterprises like a ration shop to supplement household income (even though during the seasonality calendars, women noted they were a support to a husband's microenterprise and not an owner of the microenterprise itself). Women that are engaged in self-help groups are also exposed to training around entrepreneurship and other income enhancement avenues.

Interestingly, women had higher aspirations score for the household annual income, potentially capturing their underutilized potential to contribute to an increased household income. One woman farmer spoke of such aspiration when she said, "I am looking for the opportunity to earn more and more money, so that my family becomes economically strong and children become wealthy persons to sustain their lives smoothly."

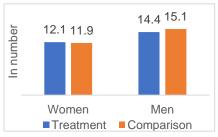


Figure 22: Count of statements agreed

In addition to this, men and women across treatment and comparison groups were asked to share their sentiments i.e., whether they agree, disagree, or have a neutral perception, across multiple statements reflecting their self-efficacy or confidence to act on certain situations. The result was calculated by counting the number of statements an individual agrees on out of 19 statements. The average count of statements that men agreed on was significantly higher compared to women reflecting that men have a higher level of self-efficacy compared to women.

Interestingly, when it comes to agriculture, the qualitative research found that none of the farmers interviewed with the life histories desired for their children to also go into agriculture. One woman shared, ""in agriculture there is not too much money but too much work." A male farmer concurred, "No, we don't want this. Because, sir we are exposed to harsh sunlight, rain." Another male farmer shared, "No I do not want. There is no money. I want that they work somewhere and earn good money and lead a happy and relaxed life."

5.8 Sexual hostility and attitudes about violence against women

Women often face day-to-day injustices like gender inequality, sexual harassment, and hostile work environments and the crimes are often done by people who are in power. Sexual hostility is a deterrent to women's empowerment and women can face it on their way to work or at the workplace.¹⁴

The table below shows the proportion of women and men who reported *never* experiencing or *sometime* experiencing any form of harassment at their workplace. In the study context, the workplace can refer to the agricultural fields that the women and men work at (which can be their own field or one where they labor for others) or in a market place where they seek to sell their goods. The study findings show that a significantly higher proportion of men across both the treatment and comparison groups reported never experiencing any form of sexual hostility at their workplace in comparison to women. In other words, significantly higher proportion of women have reported experiencing sexual hostility at their workplace compared to men but they are also less likely to report having a workplace (a quarter of the women versus less than 6 percent of men reporting no workplace). With this is mind, men were more likely than women to say they sometimes experience sexual hostility. This suggests that if women do have a work place, they often or always face sexual hostility.

Table 3: Sexual hostility occurrences faced by the respondent - Never and sometimes experienced

Sexual hostility	Treatment		Comparison	
Never experienced at workplace	Women	Men	Women	Men
Treated as "lesser" because of your sex, for example, spoken badly, interrupted, or ignored	56%	66%	55%	80%
Made remarks that you are not suited for the kind of work you do because of your sex	66%	68%	64%	82%
Made unwanted attempts to establish a romantic or sexual relationship with you despite your efforts to discourage it	69%	67%	67%	82%
Offered you work-related benefits with the expectation of sexual favours	68%	68%	69%	82%
Sexual proposition made, for example invited you to engage in sexual intercourse with them	68%	69%	71%	83%
Made you afraid you will be treated poorly, for example threatened you, did not give work, or ignored if you didn't cooperate sexually	69%	68%	68%	81%
Sometimes experienced at workplace				
Treated as "lesser" because of your sex, for example, spoken badly, interrupted, or ignored	13%	27%	13%	15%
Made remarks that you are not suited for the kind of work you do because of your sex	7%	21%	9%	13%

¹⁴ Kataria D. 2019. Sexual Harassment at Workplace - A Barrier to Women Empowerment. Journal of Emerging Technologies and Innovative Research (6) 2 https://www.jetir.org/papers/JETIR1902252.pdf

Sexual hostility	Treatment		Comp	arison
Made unwanted attempts to establish a romantic or sexual relationship with you despite your efforts to discourage it	3%	20%	3%	11%
Offered you work-related benefits with the expectation of sexual favours	4%	22%	3%	12%
Sexual proposition made, for example invited you to engage in sexual intercourse with them	3%	19%	1%	11%
Made you afraid you will be treated poorly, for example threatened you, did not give work, or ignored if you didn't cooperate sexually	3%	19%	3%	11%

N.B.: All of the differences between men and women for the estimates that are statistically significant are noted in red.

The study assessed the attitude and opinion of men and women in different scenarios to understand their perception of violence against women and is there a specific context in which they feel husband hitting his wife is justified. The study results show there is not much difference in attitude and opinion across gender; however, a significantly higher proportion of men do feel it is justified to hit their wife if she refuses to have sex. Again, significantly higher proportion of men in treatment group reported that is it justified to hit their wife if she takes up a new IGA without the consent of the husband or if she speaks with other men in the community. The qualitative findings also align with these results and depicts the conservative thinking of the community members.

One woman shared that "Violence is not right thing, but it happens. Both (man & woman) are equally responsible for this violence. Both has some difference; they should sit and resolve the issue together." While she reported that she has been afraid of her husband, particularly when he becomes angry, she does not believe violence is prevalent in her community. Her husband, on the other hand, disagrees. With another couple, the narrative flips. She acknowledges violence occurs but also agrees with the other woman that both men and women play a part, "Yes. It happens. Both are responsible for this. It encourages because women do not speak anything against it. Now such things are decreasing with time." But her husband said, "No, nothing such ever happened. Generally, it does not happen such in the village and if it does, all the people of village unite for justice."

A 65-year-old spouse of an FPO member was married off at the age of 15. She always wanted to get married, but after getting an education. But once married, she could not achieve this dream. She was the eldest child in her family and she was married early, meeting her husband only after they were married. But "it was a usual thing," she shared, "so I was happy." However, her husband "was not understanding" and she spent two years at her parent's house after the marriage. "No one in my in-law's family involved me in any decisions." "So, we don't sit and discuss anything." She also shared she was tortured by her in-laws and has faced domestic violence. After giving birth to her third child, she wanted to have surgery but her in-laws declared that "they would not give anything in property to me if I did that," so she had to give birth three more children. In all, she has six children, ages 24 to 45 years of age. When asked if she has ever felt afraid of her husband, she simply declared, "yes, my husband is violent and I have been beaten many times by him." He is so violent that she mostly avoids him to discuss anything. For this reason, and more generally throughout her life, decisions regarding her and her family have been made by others. As she's gotten older, she can make more decisions, such as remarrying her daughter after discovering the first husband was not supportive. Limited mobility is a thread throughout her life. She was not allowed to go anywhere or outside while growing up in her parents' home, nor her in-law's house, and even now. With some of her gained decision-making power, she was asked if there is anywhere, she would want to go but can't to which she replied, "No, I don't want to go anywhere. I don't even go outside if I need a doctor, my sons or husband call the doctor to come at home." When asked about domestic violence in her community, she agrees it is a problem for others as well. "Man and woman think differently. Their upbringings are different. This is the main reason of violence. Some changes can be seen but it still happens. Education

could be a way [out], as educated people don't need to face such kind of issues." Her husband, who was also interviewed, was 68. When asked about women's empowerment, he shared his strong opinions about how women can never be empowered and also are always dependent on men all through their lives. The man shares, "A woman can never be empowered. It is written in our shastras. A woman is weak. No matter how strong she becomes, she will always need a man. Indira Gandhi was so powerful but, in the end, she had to go to Feroz Gandhi. Am I saying anything wrong then tell me?" He was also asked to share his opinion about violence against women to which he didn't openly admit hitting his wife but, he feels "women need to be controlled for a family to properly function."

Table 4: Respondent's opinion or attitude about violence against women in various scenarios

Attitude about violence against women: Husband is justified in hitting his wife	Treatment		Comparison	
	Women	Men	Women	Men
If she goes out without telling him	4%	3%	4%	4%
If she neglects the children	5%	4%	3%	4%
If she burns the food	1%	2%	2%	3%
If she argues with him	4%	5%	4%	5%
If she engaged for a new IGA without consent	1%	4%	2%	3%
If she refuses to have sex	3%	11%	2%	8%
If she speaks with other men	3%	8%	5%	7%

N.B.: The difference between men and women for the estimates marked red are statistically significant.

5.9 pro-WEAI analysis

When many of the variables above are combined into the pro-WEAI index, the results suggest that at baseline (Table 5), 15 percent of women and 43 percent of men in the treatment group were considered empowered. The aggregate pro-WEAI score for women in the treatment group was 0.61, which is the weighted average of the 3DE score for women, 0.59, and the GPI score, 0.80. Of those women who were disempowered (85%), the mean adequacy score was 0.48 indicating that, on average, disempowered women achieved adequacy in 48 percent of the indicators. Of men who were identified as disempowered (43%), the mean adequacy score was 0.41, indicating that disempowered men achieved adequacy in 41 percent of the indicators. The GPI score was 0.80 and 66 percent of households did not achieve gender parity. The average empowerment gap between women who did not achieve gender parity and the men in their households was 31 percent.

The comparison group had nearly similar levels of empowerment, adequacy score and gender parity. Compared to the treatment group, the gap between men's and women's empowerment levels was slightly larger and fewer comparison group households achieved gender parity.

Table 5: Baseline pro-WEAI results

Indicator	Treatment		Comparison	
	Women	Men	Women	Men
Three Domains of Empowerment Index (3DE)	0.59	0.77	0.56	0.79
% Not achieving empowerment (H)	0.85	0.57	0.88	0.56
Mean disempowerment score for disempowered (A)	0.48	0.41	0.50	0.38

¹⁵ Indira Gandhi was elected as the third prime minister of India in 1966 and was also the first, and to date, only female prime minister of India. She served between 1966 and 1977 and then again in 1980 until 1984 when she was assassinated. Feroz Gandhi was a freedom fighter who fought to end Britain's rule in India. He was also a politician in Uttar Pradesh and a journalist. Indira and Feroz Gandhi had two sons, one of whom also became prime minister after his mother's death. The irony of the respondent's statement is he likely assumes women as powerful as Indira Gandhi also need the emotional, mental and physical support from men like Feroz Gandhi.

Number of respondents	486	471	491	482
Gender Parity Index (GPI)	0.80		0.77	
% HHs not achieving parity (H _{GPI})	0.66		0.69	
Mean empowerment gap (IGPI)	0.31		0.33	
Number of dual-adult households	458		474	
Pro-WEAI	0.61		0.58	

Note: $3DE = 1 - (H^*A)$; $GPI = 1 - H_{GPI} * I_{GPI}$)

In Figure 23, the results show that control over use of income, work balance, and group membership are the most significant contributors to disempowerment for both men and women across both treatment and comparison groups. With respect to disempowerment in the control over the use of income, this means that men and women feel they have limited input into decisions about how to use both income and outputs from all agriculture and all non-agricultural activities they participate in. While initially this seems confusing that men would be disempowered in this aspect, it is likely that this is due to living in multi-generational homes where ultimate decisions may be made by the father/father-in-law or a landowner. To achieve adequacy in work balance, one must work less than 10.5 hours per day which means the cumulative time they spend in productive and reproductive (childcare) activities is less than 10.5 hours per day. This suggests that the cumulative effect of the time allocations documented earlier in the report leads to little time for personal care, leisure and rest. Interestingly, as was noted earlier, there was little report of belonging to FPOs, which is a key assumption for at least the men in this study, that they are noted as members of an FPO participating in the MANDI project. Also noted above, the low report of membership may be a result of some FPOs being relatively new, some FPOs being unable to provide tangible benefit to their members, and the timing of the question which may suggest that the value of the FPO may only be visible during specific times of the agricultural cycle, such as at harvest when produce is aggregated for sale.

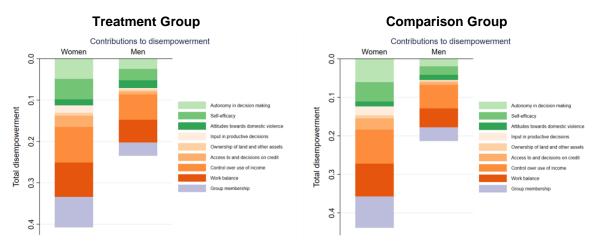


Figure 23: Contributions to disempowerment

In the qualitative interviews, empowerment was defined differently by men and women. Many men described 'income' as a means to empowerment. One farmer reported feeling more empowered than at the beginning of his marriage because at this point "I have a nice job to provide to my family." In Varanasi, another man connected empowerment to 'economic well-being' by stating: "If we earn more and are able to provide to our family, we will be empowered."

Education, or lack thereof, was identified as a major determining factor in women's perceptions of their own empowerment. Along these lines, one woman farmer shared that "I am not much empowered. Sometimes, I fear to take the decision at my own level that whether this work should be done or not." She went on to explain that she blamed her illiteracy for this lack of empowerment, since it never gave her "the opportunity

to learn income generating activities." In a similar vein, another woman shared that her sense of reduced empowerment stemmed from her stunted education: "I always wanted to study more but couldn't. Then I would have been more empowered...I also wanted to stand on my own feet."

However, both men and women included decision-making power as closely connected with empowerment. A Prayagraj farmer described one who "can take all the decision related to her children, household, selling and purchasing" as being empowered. A male Varanasi farmer, when asked about changes in his feelings of empowerment over time, shared that "now it is better. I have more decision-making power now."

6 Discussion

The baseline results show that while there are a few slight differences between the treatment and comparison groups on some variables, but overall, the two study groups are fairly comparable at baseline which will strengthen comparison of results at the endline.

When assessing empowerment, despite women facing greater disempowerment than men, both men and women face fairly high levels of disempowerment based on the pro-WEAI analysis. A little over half of the men are disempowered while the majority of women (more than 85 percent) are disempowered. This disempowerment is driven by their low perceived control over the use of the income, low work balance, and low group membership. This may in part be driven by the fairly high levels of poverty, where slightly more than half of the respondents live under \$2.50 per day as well as the relatively conservative norms that prevail in UP. Also, the baseline assessment was completed between the second and third waves of COVID-19 pandemic, which could have resulted in households working more to make up for IGAs lost to travel restrictions or social distancing requirements. COVID-19 might also explain some of the limited reporting of belonging to groups given social distancing may have made convening harder and less imperative during this time period.

Given both men and women were disempowered in the control over use of income related to their IGAs, it is likely that others in the household, such as a father or father-in-law or other family members are making decisions over the revenue generated from these activities. The qualitative research revealed that many of the couples are part of an extended household, often living with and co-mingling finances with other household members. For example, the wife of one couple shared that "this is a joint family. Four families are living together." After the death of the man's father, he shared, "we were all like left in the darkness. He was the house owner, retired but he used to get 30,000 INR monthly. He was very helpful and always ready if anyone ever needed any help. Medicines, clothing everything. So now the four brothers are creating a new system." Mothers-in-law are highly influential over their daughters-in-law. As one shared, "Mother-in-law used to take decisions after marriage but now with time I am able to take decisions." And often the different answers of the spouses reveal how they perceive decision-making. For one couple, the man answered all decision-making questions related to how he and his wife make decisions, and he felt they both make decisions, even though he felt "sometimes I feel I should have more influence." His wife on the other hand revealed how other household members play a role, "Decisions related to the household and animals are taken by my husband or father-in-law". When asked if she wanted more power, she noted, "All the decisions are made by the men of the family. Women have less power to make decisions, this is the family culture." This may be one area for strengthening qualitative and quantitative tools to understand not only who is broadly making decisions, but who may have a final say in how income is used. While a spouse may have some say, his father or an elder brother may be able to over-ride decisions. A ranking of decision-makers may be helpful to unpack this dynamic.

How men interpret and/or experience mobility constraints and sexual hostility at work deserves greater attention. The results show men reporting mobility constraints and experiencing sexual hostility. This goes against assumptions one might have regarding men's greater levels of mobility (as they are often

seen as the ones to restrict women's movement) and their lower levels of sexual hostility (as they are often seen as perpetrators of sexual hostility). One interpretation for the mobility constraint relates to the role that the extended family maybe be playing to restrict movement. Other male household leaders may limit movement during the day (such as requiring family members to labor on the farm versus attend to other household duties). There is little qualitative data to explain this, as none of the men qualitatively reported or explained any mobility limitations. COVID-19 restrictions might explain some mobility restrictions for men that did not exist before. Sexual hostility at the workplace reported by men may not necessarily capture incidences where men have faced any form of sexual hostility. When men discuss among themselves or make sexual remarks it could be misconstrued as a form of harassment when they are asked if they have ever encountered sexual hostility. While, the proportions are low, this should be explored further to help explain how men interpret the questions and respond to them.

The literature often talks of women's double or triple work days, when you include caretaking responsibilities. The results in this study show women spending little time in income generating activities and more time resting compared to men. However, these **time allocations may under-represent women's "work" so long as women do not see their unpaid work as "work."** The time allocations may also underestimate work done at other periods of the year as this survey was conducted after the primary harvest and during the shorter days of January. One assessment conducted in India found that 63 percent of women in rural areas work in self-employed IGAs, but this figure can be misleading as "most women are employed as unpaid family workers in family farms and family businesses, engaging in activities like taking care of livestock, etc." How women interpret the concept of generating income, working, and caretaking deserves additional probing to ensure the way they interpret their activities is not over or under-estimated quantitatively. Measuring this over time, during different seasons, might also provide an opportunity for understanding how these time allocations change. This would be an interesting future research.

Finally, as the MANDI project focuses on strengthening FPOs to better support their farmer membership, particularly through greater inclusion and support to women, the fact that so few farmers report membership in groups is an opportunity to the MANDI project to make great strides in this area, but there is also the risk of not capturing this impact if how respondents identify with certain groups is not better understood. For example, the results above noted that while given the option of reporting FPO membership, there was very little FPO membership identified among members. There were greater numbers identified with agricultural or allied groups. It will be important to understand how people understand the concept of "membership" of FPOs and other groups as well as the relationship between FPOs and agri-/agri-allied groups since people may be reporting their membership with the FPO elsewhere.

7 Conclusion

The MANDI project has the goal to increase women's roles and leadership in FPOs as well as their overall economic empowerment in Uttar Pradesh, India. The baseline assessment leveraging the pro-WEAI tool with some additional indicators being considered for the pro-WEAI+MI show that while women are more disempowered than men, men are also disempowered in some areas. Improving women's empowerment at the detriment of men can put women at greater risk, particularly when men feel disenfranchised at the benefit of women.¹⁷

Given the key project activities of strengthening FPO policies and practices as it relates to gender as well as ensuring that FPOs can meet their goal of improving outcomes and livelihoods of its members, it is anticipated that the MANDI project will benefit its FPO members—and men and women alike, as special attention is paid to women's equity within the project activities. Given men and women both experience

¹⁶Bhardwaj N. 2022. Women and Work in India: Trends and Analysis. India Briefing. https://www.india-briefing.com/news/women-and-work-in-india-trends-and-analysis-24758.html/

¹⁷ ICRW. 2019. Women's Economic Empowerment: Are we doing it right? https://www.icrw.org/wp-content/uploads/2019/09/Womens-Economic-Empowerment-Are-we-doing-it-right-Unintended-Consequences.pdf

disempowerment in *work balance*, *control over income*, and *group membership*, the MANDI project should directly influence group membership through its activities. In order to improve empowerment in *control over income*, the Grameen team will need to consider how the community dialogue activities currently and directly engage all household decision-makers in the dialogues as well since the relationship between husband and wife is not the only determinant for one's decisions and control over income earned. Moreover, further analysis of whom within the household is making decisions besides the respondents will be an important question to pursue. Similarly, in what way can program activities address work balance? This may be an area where technologies that reduce labor needs or time or drudgery can be integrated to free up more time for rest and leisure. This may also be an area for greatest risk since households are already overworked –any activity that the project promotes that likely increases time working may also show an increase in work balance as an indicator of disempowerment at endline. The project may need to consider how activities create time efficiencies as they are considered, promoted, and implemented.

This baseline report also serves to identify opportunities to strengthen research methodologies at endline. The research reveals the need to understand decision-making power and group membership and how these are interpreted by men and women as well as men's interpretation of the mobility and sexual hostility questions.

Annexures

Brief about the pro-WEAI tool

The Women's Empowerment in Agriculture Index (WEAI), launched by IFPRI, Oxford Poverty and Human Development Initiative, and USAID's Feed the Future in February 2012, is the first comprehensive and standardized measure to directly measure women's empowerment and inclusion in the agricultural sector. WEAI for market inclusion (pro-WEAI+MI) takes the tool one step further to measure empowerment across the value chain. IFPRI developed this tool in 2020 to extend the existing pro-WEAI module. The project-level Women's Empowerment in Agriculture Index for market inclusion (pro-WEAI+MI) has a total of 18 modules and includes the core pro-WEAI module plus new complementary indicators to investigate barriers to market access and inclusion for different value chain actors. The survey also offers several optional indicators, including access to reliable sanitation and sexual hostility in the working environment, to assess the empowerment environment.

Calculating the empowerment score:

The first step in calculating the pro-WEAI score is, to sum up, the number of indicators each respondent achieves adequacy. The next step is to identify, based on the individual's adequacy score, whether they are empowered or disempowered. This is determined according to an empowerment cut-off of 75 percent. This means an individual is considered to be empowered if he or she achieves adequacy in at least 75 percent (or 7 out of the 9) of the indicators. Adequacy is used to express how an individual fares with respect to each indicator and overall empowerment is to express how someone fares across all the 9 indicators. For example, an individual who is adequate in only five indicators is considered disempowered while someone having adequacy in ten indicators will be considered empowered.

The empowerment level of men and women is used to calculate the 3DE and GPI score. The final pro-WEAI score is the weighted sum of two sub-indices (3DE and GPI) with the 3DE receiving a weight of 90 percent and the gender parity index receiving a weight of 10 percent. The pro-WEAI score ranges from 0 to 1, with higher values indicating greater empowerment.



pro-WEIA+MI tool

INDIVIDUAL QUESTIONNAIRE - [ENGLISH]

Note to enumerators: This questionnaire should be administered separately to the primary and secondary respondents identified in the household roster of the household level questionnaire. You should complete this coversheet for each individual identified in the "selection section" for reporting purposes, even if the individual is not available to be interviewed. Please make sure that the individual respondents for the questionnaire include the primary project beneficiary (or equivalent) and his or her spouse/partner (if applicable).

Please double-check to ensure:

- You have completed the roster section of the household questionnaire to identify the correct primary and/or secondary respondent(s);
- You have noted the household ID and individual ID correctly for the person you are about to interview;
- You have gained informed consent from the individual in the household questionnaire;
- You have sought to interview the individual in private or where other members of the household cannot overhear or contribute answers.
- Do not attempt to make responses between the primary and secondary respondents the same—it is okay for them to be different.

CONSENT FORM -

CONSENT FORM -
Note to Enumerator: Before beginning the interview, it is necessary to introduce the household to the survey and obtain their consent to participate. Make it clear to them that their participation in the
survey is voluntary. Please read the following statement in the language of interview:
My name is and I work for [survey firm name] in collaboration with [supporting organization's name]. We are conducting this survey and study to he
understand your experiences and the constraints and opportunities in the [agricultural commodity] sector in [country].
You have been chosen for this survey from among households that are affiliated with farmer organizations in this area. This interview will last about [X hours]; and will consist of questions about [X hours] and will consist of questions about [X hours].
agricultural production, your livelihood, your household, and attitudes about things in your household and community. We will be interviewing separately another member of your household of t
opposite gender, such as your spouse, to understand similar topics from their perspective.
Your participation in this survey is voluntary. If you choose to participate, you may refuse to answer certain questions, or you may stop participating at any time. There is no foreseen risk to you
participation in this survey, except for the 3 hours you will spend with our survey team.
We ask for your support by responding to the questions as honestly and fully as possible. Your responses will be kept COMPLETELY CONFIDENTIAL. This is not an assessment of your efforts a
there are no right or wrong answers. We just would want to know your actual practices and the challenges you face to understand how we can improve the services that are developed and promote
The answers you provide will not be shared with regulators or any accreditation team. There will be no names that will be linked to any responses or data. Your responses will be combined with tho
from other respondent in the study, and overall patterns describing experiences will be reported. These findings will be very useful for the researchers and policymakers in improving technologies a
services.
In approximately one year (in 2022), we will visit you again to identify and assess what changes have occurred in your practices and agricultural production operations as part of the evaluation of the evaluatio
project. We hope that you will again welcome us and support us in that next round of survey.
If you have questions about this survey or study, you may contact any of the following: [include local contact information].
If you have questions about your rights as a participant in this study, contact the [include contact information for the approving ethics body].
You can ask questions concerning the study, both before agreeing to be involved and during the course of the study. You can also stop participating at any time.
Do you indicate your voluntary consent to participate in this interview: may we begin?
□ Yes, I am willing to participate voluntarily
□ No, I am not willing to participate in the survey
Consent form approved by [Institutional IRB body on MONTH DAY, YEAR] and by [Local IRB body] on MONTH DAY, YEAR.



MODULE G1: INDIVIDUAL IDENTIFICATION

		IDUAL IDENTIFICATION			
		names and respondent IDs of all househo	old members fro	m the household roster. PLEAS	SE ENSURE THAT THE IDS MATCH THE NAMES.
Respo	ondent ID		Na	ıme	
1					
2					
3					
4					
G1.01	CAPI: HOUSEI	HOLD	G1.04	TYPE OF HOUSEHOLD	Male and female adult respondents
G1.02A	NAME FROM ROST MODULE B HOUSEI ROSTER: SURNAME, FIRST N	HOLD	G1.05A	COMMODITY FOR SURVEY	CROP of PRODUCT 6
			G1.05B	LANGUAGE OF INTERVIEW (SPECIFIC CATEGORIES SHOULD BE ADAPTED TO THE STUDY)	Language 1 1 Language 2 2 Language 3 3 Language 4 4 Language 5 5 Other (specify) 97
G1.02B	MEMBER ID CODE F ROSTER IN MODU HOUSEHOLD ROST	LE B	G1.06	OUTCOME OF INTERVIEW: SELECT ONE	Completed
G1.03	SEX OF RESPONDE	MALE			
		OTHER3	G1.07	INTERVIEW CONTEXT: CIRCLE ONE	Alone



			Crop list for G1.05A, G2	2.01 and G2.02			
Code	Item	Code	Item	Code	Item	Code	Item
1	Paddy	31	Bottle Gourd	61	Lemon/Lime	91	Eucalyptus
2	Wheat	32	Spine Gourd	62	Orange	92	Supari
3	Maize	33	Snake Gourd	63	Papaya	93	Jackfruit
4	Millet	34	Pointed Gourd	64	Water Melon	94	Jamun
5	Sorghum	35	Ridge Gourd	65	Litchi	95	Other
6	Barley	36	Leafy vegetable	66	Apple		
7	Oat	37	Sweet Potato	67	Berries		
8	Groundnut	38	Brinjal	68	Banana		
9	Mustard	39	Cucumber	69	sugarcane		
10	Rapeseed	40	French bean	70	Beal (woodapple)		
11	Nizer	41	Green pea	71	Pomelo		
12	Sunflower	42	Broccoli	72	pomegranate		
13	Soyabean	43	Radish	73	Pineapple		
14	Linseed	44	Carrot	74	Onion		
15	Til	45	Coriander	75	Garlic		
16	Pigeonpea	46	Ladies Finger	76	Turmeric		
17	Blackgram	47	Coccinia (Kundru)	77	Ginger		
18	Chickpea	48	Elephant foot yam	78	Tobacco		
19	Greengram	49	Colocasia (Kacchu)	79	jute		
20	Horsegram	50	Aru	80	dhaincha		
21	Lentil	51	Flat bean (Saim)	81	Makhana		
22	Lathyrus (Cheakling pea)	52	Drumstick	82	Water Chestnut		
23	Potato	53	Beet root	83	Bamboo		
24	Tomato	54	Pupmkin	84	Marigold		
25	Cabbage	55	Cowpea	85	Cotton		
26	Cauliflower	56	Bean	86	Arrrow root		
27	Chilli	57	Kakri	87	Yambean		
28	Capsicum	58	Ashgourd	88	Tamrind		
29	Sponge Gourd	59	Guava	89	Coconut		
30	Bitter Gourd	60	Mango	90	Lemon grass		

Code list for G1.05B							
Code	Code Language						
1	Hindi						
2	English						
7	Others (specify)						

MODULE G2(A): ROLE IN HOUSEHOLD DECISION-MAKING AROUND LIVELIHOOD ACTIVITIES

Note: Projects will need to predefine the crops or products listed. Depending on the study design, projects should make an informed decision whether to ask respondents to indicate their crop or product or whether these she be predefined in the CAPI system, based on selection criteria.

p. oaaot	or whomer these one be predefined in the er in rejecting based on estection enter	
G2.01	What is your primary commodity in your work with [PROJECT]?	CROP or PRODUCT 1



	CHOOSE ONE	CROP or PRODUCT 2	2
		CROP or PRODUCT 3	3
		CROP or PRODUCT 4	4
		CROP or PRODUCT 5	5
		CROP or PRODUCT 6	6
		OTHER (SPECIFY)	97
G2.02	After [COMMODITY FROM G2.01], what is your secondary commodity with	CROP or PRODUCT 1	1
	[PROJECT]?	CROP or PRODUCT 2	2
	CHOOSE ONE	CROP or PRODUCT 3	3
		CROP or PRODUCT 4	4
		CROP or PRODUCT 5	5
		CROP or PRODUCT 6	6
		OTHER (SPECIFY)	97
		NONE	۵a



MODULE G2(B): ROLE IN HOUSEHOLD DECISION-MAKING AROUND LIVELIHOOD ACTIVITIES

Read: Now I'd like to ask you some questions about your participation in certain types of work activities and on making decisions on various aspects of household life. I am interested in all the different types of activities that people in your household do to earn a living. These activities might be farming, processing, trading or marketing of different types of agricultural products, livestock activities, non-farm activities, such as running a small business, or working for a salary or wage.

anyone in your household participated in [ACTIVITY] in the past 12 months, from [PRESENT MONTH] last year to [PRESENT MONTH] this year? Anyone in your household participate in [ACTIVITY] in the past 12 months from [PRESENT MONTH] last year to [PRESENT MONTH] this year?		[ACTIVITY], takes the de ENTER HH ME SELECT UP TI IF THE RESPO >> G2.06 NON-HOUSEH NOT APPLICA	NON-HOUSEHOLD MEMBER97 NOT APPLICABLE / NO DECISION MADE98 → NEXT ACTIVITY			To what extent do you feel you can participate in decisions regarding [ACTIVITY] if you want(ed) to? SELECT ONE	How much input did you have in decisions about how much of the outputs of [ACTIVITY] to keep for home use rather than selling? USE CODE G2.06, G2.08, G2.09↓	How much input did you have in decisions about how to use income generated from [ACTIVITY]? USE CODE G2.06, G2.08, G2.09		
A	СТІVІТҮ	G2.03	G2.04	a	G2.05	С	G2.06	G2.07	G2.08	G2.09
A	[COMMODITY 1] farming, processing, trading or marketing	YES1 NO2 → NEXT ACTIVITY	YES1 NO2→ NEXT ACTIVITY					Not at all1 Small extent2 Medium extent3 High extent4		
В	[COMMODITY 2] farming, processing, trading or marketing	YES1 NO2 → NEXT ACTIVITY	YES1 NO2 → NEXT ACTIVITY					Not at all		
С	Staple crop farming, processing, trading or marketing: grains that are grown primarily for food consumption (rice, corn, beans, pulses)	YES1 NO2 → NEXT ACTIVITY	YES1 NO2 → NEXT ACTIVITY					Not at all		
D	Horticultural (gardens) farming, processing, trading, or marketing: crops other than the ones previously mentioned	YES1 NO2 → NEXT ACTIVITY	YES1 NO2 → NEXT ACTIVITY					Not at all		
Ε	Large livestock raising (cattle, buffaloes) or processing, trading or	YES1 NO2 → NEXT ACTIVITY	YES1 NO2 → NEXT ACTIVITY					Not at all		



Read: Now I'd like to ask you some questions about your participation in certain types of work activities and on making decisions on various aspects of household life. I am interested in all the different types of activities that people in your household do to earn a living. These activities might be farming, processing, trading or marketing of different types of agricultural products, livestock activities, non-farm activities, such as running a small business, or working for a salary or wage.

	anyone in your household participated in [ACTIVITY] in the past 12 months from [PRESENT MONTH] last year to [PRESENT MONTH] last year to [PRESENT MONTH] this year?		[ACTIVITY], takes the de ENTER HH ME SELECT UP TO IF THE RESPO >> G2.06 NON-HOUSEH NOT APPLICA	When decisions are made regarding [ACTIVITY], who is it that normally takes the decision? ENTER HH MEMBER IDS SELECT UP TO THREE (3) PERSONS IF THE RESPONSE IS SELF ONLY GO TO >> G2.06 NON-HOUSEHOLD MEMBER97 NOT APPLICABLE / NO DECISION MADE98 → NEXT ACTIVITY			To what extent do you feel you can participate in decisions regarding [ACTIVITY] if you want(ed) to? SELECT ONE	How much input did you have in decisions about how much of the outputs of [ACTIVITY] to keep for home use rather than selling? USE CODE G2.06, G2.08, G2.09↓	How much input did you have in decisions about how to use income generated from [ACTIVITY]? USE CODE G2.06, G2.08, G2.09↓	
Α	CTIVITY	G2.03	G2.04		G2.05	_	G2.06	G2.07	G2.08	G2.09
	marketing of milk, meat or meat products			а	b	С				
F	Medium Ilivestock raising, goats or pigs, or processing, trading or marketing of milk, meat or meat products	YES1 NO2 → NEXT ACTIVITY	YES1 NO2 → NEXT ACTIVITY					Not at all		
G	Poultry and other small animals raising (chickens, ducks, turkeys, rabbits) and processing, trading or marketing of eggs, meat or meat products	YES1 NO2 → NEXT ACTIVITY	YES1 NO2 → NEXT ACTIVITY					Not at all		
Н	Non-farm economic activities in other sectors (running a small business, self-employment, buy-and-sell)	YES1 NO2 → NEXT ACTIVITY	YES1 NO2 → NEXT ACTIVITY					Not at all		
I	Wage and salary employment (work that is paid for in cash or in-kind,	YES1 NO2 → NEXT ACTIVITY	YES1 NO2 . → NEXT ACTIVITY					Not at all		



Read: Now I'd like to ask you some questions about your participation in certain types of work activities and on making decisions on various aspects of household life. I am interested in all the different types of activities that people in your household do to earn a living. These activities might be farming, processing, trading or marketing of different types of agricultural products, livestock activities, non-farm activities, such as running a small business, or working for a salary or wage.

		Have you or anyone in your household participated in [ACTIVITY] in the past 12 months, from [PRESENT MONTH] last year to [PRESENT MONTH] this year?	Did you [NAME] participate in [ACTIVITY] in the past 12 months from [PRESENT MONTH] last year to [PRESENT MONTH] this year?	[ACTIVITY], who is it that normally takes the decision? ENTER HH MEMBER IDS SELECT UP TO THREE (3) PERSONS IF THE RESPONSE IS SELF ONLY GO TO >> G2.06 NON-HOUSEHOLD MEMBER97 NOT APPLICABLE / NO DECISION MADE98 → NEXT ACTIVITY		How much input did you have in making decisions about [ACTIVITY]? USE CODE G2.06, G2.08, G2.09↓	To what extent do you feel you can participate in decisions regarding [ACTIVITY] if you want(ed) to? SELECT ONE	How much input did you have in decisions about how much of the outputs of [ACTIVITY] to keep for home use rather than selling? USE CODE G2.06, G2.08, G2.09↓	How much input did you have in decisions about how to use income generated from [ACTIVITY]? USE CODE G2.06, G2.08, G2.09]	
Α	CTIVITY	G2.03	G2.04	G2.05		G2.06	G2.07	G2.08	G2.09	
				a	b	С				
	including both agriculture and other wage work)									
J	Large, occasional household purchases (bicycles, land, transport vehicles)							Not at all		
K	Routine household purchases (food for daily consumption or other household needs)							Not at all		

CODE G2.06, G2.08, G2.09	
LITTLE TO NO INPUT IN DECISIONS	1
INPUT INTO SOME DECISIONS	2
INPUT INTO MOST OR ALL DECISIONS	3
NOT APPLICABLE / NO DECISION MADE	98



MODULE G3: ACCESS TO INFORMATION AROUND LIVELIHOOD ACTIVITIES

CAPI Note: Program CAPI so that row of questions is only asked if G2.04=1 for that activity.		Did you [Name] receive or acquire high-quality information, advice, or training on [ACTVITY] in the last 12 months from any source (that is, during the last [one/two] cropping seasons), from [PRESENT MONTH] last year to [PRESENT MONTH] this year)?	Who gave you this advice, information, or training on [ACTIVITY]? Multiple answers allowed Code for G3.02	the advice received/		Y]?	Did you or someone in your household act upon or implement the advice on [ACTIVITY]?
AC	TIVITY	G3.01	G3.02	a	G3.03	С	- G3.04
Α	[COMMODITY 1] farming, processing, trading or marketing	YES1 NO2 → NEXT ACTIVITY		-	-	-	YES 1 NO 2
В	[COMMODITY 2] farming, processing, trading, or marketing	YES1 NO2 → NEXT ACTIVITY					YES 1 NO 2
С	Staple crop farming, processing, trading, or marketing: grains that are grown primarily for food consumption (rice, corn, beans, pulses)	YES1 NO2 → NEXT ACTIVITY					YES 1 NO 2
D	Horticultural (gardens) farming, processing, trading, or marketing: crops other than the ones previously mentioned	YES1 NO2 → NEXT ACTIVITY					YES1 NO2
E	Large livestock raising (cattle, buffaloes) or processing, trading, or marketing of milk, meat, or meat products	YES1 NO2 → NEXT ACTIVITY					YES 1 NO 2
F	Medium livestock raising, goats or pigs, or processing, trading, or marketing of milk, meat, or meat products	YES1 NO2 → NEXT ACTIVITY					YES 1 NO 2
G	Poultry and other small animals raising (chickens, ducks, turkeys, rabbits) and processing, trading or marketing of eggs, meat or meat products	YES1 NO2 → NEXT ACTIVITY					YES1 NO2
Н	Non-farm economic activities in other sectors (running a small	YES1 NO2 → G2.12					YES 1 NO 2



CAPI Note: Program CAPI so that row of questions is only asked if G2.04=1 for that activity.		Did you [Name] receive or acquire high-quality information, advice, or training on [ACTVITY] in the last 12 months from any source (that is, during the last [one/two] cropping seasons), from [PRESENT MONTH] last year to [PRESENT MONTH] this year)?	Who gave you this advice, information, or training on [ACTIVITY]? Multiple answers allowed Code for G3.02	Who in the househo the advice received/ ENTER UP TO THE OTHER CODES: NO DECISION MAD NON-HH MEMBER	Did you or someone in your household act upon or implement the advice on [ACTIVITY]?		
۸۵	TIVITY	G3.01	G3.02		G3.04		
AC	110111	G5.01	G3.02	а	b	С	G3.04
	business, self-employment, buy-and-sell)						
I	Wage and salary employment (work that is paid for in cash or in-kind, including both agriculture and other wage work)	YES1 NO2 → G2.12					YES 1 NO 2

00DF F0D 00 00	
CODE FOR G3.02	
Government extension agent	1
Other field officers or development agents (from NGO, project, private sector, others)	
Family or household member	
Farmer producer organization	
Another farmer in a leadership role in your community, co-op, etc.	
Other farmers/neighbor/friends	
Radio program	
Other mass media (television, newspaper, flyers, etc.	
Other (specify)	9



MODULE G4: SALES AND NEGOTIATIONS

CAPI Note: Program CAPI so that row of questions is only asked if G2.03=1 for that activity. Please note that the rows differ slightly, such that livestock rows are divided into livestock and their by-products. Each livestock category in the previous module should activate the associated livestock and livestock products category.		In the past 12 months (that is, during the last [one/two] cropping seasons), from [PRESENT MONTH] last year to [PRESENT MONTH] this year, did your household sell [PRODUCT]?	Who usually participates in the negotiation of the main sale on behalf of you or your household members? SELECT ALL THAT APPLY	How satisfied are you with the market information that is normally available to negotiate the sale?	Overall, how satisfied were you with the outcome of the negotiations, for example, the price and quantity sold, over the past 12 months?	Where do you get information on the going rates for [PRODUCT]? USE CODE G4.05↓
PRODUC [*]	T/SERVICE	G4.01	G4.02	G4.03	G4.04	G4.05
A	[COMMODITY 1]	Yes1 No2>>NEXT PRODUCT/ SERVICE	Self	Unsatisfied	Unsatisfied	
В	[COMMODITY 2]	Yes1 No2>>NEXT PRODUCT/ SERVICE	Self	Unsatisfied	Unsatisfied	
С	Staple crops	Yes1 No2>>NEXT PRODUCT/ SERVICE	Self	Unsatisfied	Unsatisfied	
D	Horticultural (gardens) products (other than the ones previously mentioned)	Yes1 No2>>NEXT PRODUCT/ SERVICE	Self	Unsatisfied	Unsatisfied	
E	Large livestock (cattle, buffaloes)	Yes1 No2>>NEXT PRODUCT/ SERVICE	Self	Unsatisfied	Unsatisfied	
F	Products derived from large livestock, such as milk, meat, or meat products	Yes1 No2>>NEXT PRODUCT/ SERVICE	Self	Unsatisfied	Unsatisfied	
G	Medium livestock (goats, pigs)	Yes1 No2>>NEXT PRODUCT/ SERVICE	Self	Unsatisfied	Unsatisfied	
Н	Products derived from medium livestock, such as milk, meat, or meat products	Yes1 No2>>NEXT PRODUCT/ SERVICE	Self	Unsatisfied	Unsatisfied	



ı	Poultry and other small animals (chickens, ducks, turkeys, rabbits)	Yes1 No2>>NEXT PRODUCT/ SERVICE	Self	Unsatisfied	Unsatisfied	
J	Products derived from small livestock, such as milk, meat, or meat products	Yes1 No2>>NEXT PRODUCT/ SERVICE	Self	Unsatisfied	Unsatisfied	
К	Non-farm goods and/or services in other sectors (e.g., running a small business, self-employment, buy-and-sell)	Yes1 No2>>NEXT	Self	Unsatisfied	Unsatisfied	

CODE FOR G4.05
Extension agent
Training/advice from farmer producer organization
Training/advice from government
Training/advice from private company4
Training/formal education
Input supplier
Farmer's or industry association
Family/Friend/Neighbour8
Newspaper or other printed materials9
Internet
Social media11
Spouse
Did not seek or receive advice
Other (please specify)
Don't know



MODULE G5: ACCESS TO WEATHER INFORMATION (optional)

		· · · · · · · · · · · · · · · · · · ·		
G5.01	Do you currently use	Yes1>>G5.03		
	weather information	No2		
	to inform your	110		
	,			
	livelihood activities?			
G5.02	Would weather	Yes1		
	information be	No2>> NEXT MODULE		
	useful to inform your			
	livelihood activities?			
		When you need weather information, are you	How do you usually access	Overall, do you feel that you are able
			information from [SOURCE]?	
		normally able to access (the) [SOURCE] to	iniomation from [SOURCE]?	to get accurate weather information
		access this information?		from [SOURCE] in time to act upon it?
		SELECT ONE	CHECK ALL THAT APPLY	
SOURCE		G5.03	G5.04	G5.05
A	Extension agent	Yes1	Word of mouth1	Always 1
^	Extension agent	No. 2	Radio or television	Often
		Not interested in using this source3	Text messaging service3	Sometimes3
		Does not apply4	Newspaper or other printed	Never 4
			materials4	Refused to answer98
			Internet5	
			Apps6	
			Social media7	
_	F '1 C' 1	1		A1
В	Family, friend, or	Yes1	Word of mouth1	Always1
	neighbor	No2	Radio or television2	Often2
		Not interested in using this source3	Text messaging service3	Sometimes3
		Does not apply4	Newspaper or other printed	Never4
			materials4	Refused to answer98
			Internet5	
			Apps6	
			Social media7	
С	Farmer producer	Yes1	Word of mouth1	Always 1
	organization	No2	Radio or television2	Often2
		Not interested in using this source3	Text messaging service3	Sometimes3
		Does not apply4	Newspaper or other printed	Never4
		Book not apply	materials4	Refused to answer98
			Internet5	Troidsed to driswer
			Apps6	
			Social media7	
D	Farmers' or industry	Yes1	Word of mouth1	Always 1
	association	No2	Radio or television2	Often2
		Not interested in using this source3	Text messaging service3	Sometimes
			Newspaper or other printed	Never4
		Does not apply4		
			materials4	Refused to answer98
			Internet5	
			Apps6	
	1	1	· · · · · · · · · · · · · · · · · · ·	l .



			Social media7	
E	Other (specify)	Yes	Word of mouth	Sometimes3
			Apps6	
			Social media7	



MODULE G6: ACCESS TO PRODUCTIVE CAPITAL

Re	ad: Now I'd like to ask you about your ownership and access to a num	ber of items that could be used	d to generate income.							
		Does anyone in your household currently own or co-own any [ITEM]?	Do you [NAME] own any [ITEM], either solely, jointly? CIRCLE ONE	Do you have access to [ITEM] through your farmer producer organization or cooperative or one that you a household member is a part of?						
ITE	EM	G6.01	G6.02	CHECK ALL THAT APPLY G6.03						
	Agricultural Land (including fishpond) (Pieces/plots)	YES1 NO2 → NEXT ITEM	Yes, solely	Yes, one that respondent is a part of1 Yes, one that another HH member is a part of2 No3						
В	Large livestock (cattle, buffaloes)	YES1 NO2 → NEXT ITEM	Yes, solely							
С	Small livestock (sheep, goats, pigs)	YES1 NO2 → NEXT ITEM	Yes, solely 1 Yes, jointly 2 Yes, solely and jointly 3 No 4							
D	Poultry and other small animals (chickens, ducks, turkeys, rabbits)	YES1 NO2 → NEXT ITEM	Yes, solely							
Ε	Aquaculture or fishing boat or equipment	YES1 NO2 → NEXT ITEM	Yes, solely	Yes, one that respondent is a part of						
F	Non-mechanized farm equipment, such as a hoe, auger, spade, wheelbarrow, weeder, or hose	YES1 NO2 → NEXT ITEM	Yes, solely 1 Yes, jointly 2 Yes, solely and jointly 3 No 4	Yes, one that respondent is a part of1 Yes, one that another HH member is a part of2 No3						
G	Mechanized farm equipment such as a tractor-plough, power tiller, or treadle pump	YES1 NO2 → NEXT ITEM	Yes, solely 1 Yes, jointly 2 Yes, solely and jointly 3 No 4	Yes, one that respondent is a part of1 Yes, one that another HH member is a part of2 No3						



Re	Read: Now I'd like to ask you about your ownership and access to a number of items that could be used to generate income.										
		Does anyone in your household currently own or co-own any [ITEM]?	Do you [NAME] own any [ITEM], either solely, jointly? CIRCLE ONE	Do you have access to [ITEM] through your farmer producer organization or cooperative or one that your a household member is a part of?							
ıTF	· M	00.04	00.00	CHECK ALL THAT APPLY G6.03							
ITE	·M	G6.01	G6.02								
Н	Equipment for processing agricultural products, such as dryers, grinders, or roasters	YES1 NO2 → NEXT ITEM	Yes, solely 1 Yes, jointly 2 Yes, solely and jointly 3 No 4	Yes, one that respondent is a part of							
I	Non-farm business equipment, such as solar panels used for recharging, sewing machine, brewing equipment, fryers	YES1 NO2 → NEXT ITEM	Yes, solely 1 Yes, jointly 2 Yes, solely and jointly 3 No 4	Yes, one that respondent is a part of							
J	House or building	YES1 NO2 → NEXT ITEM	Yes, solely 1 Yes, jointly 2 Yes, solely and jointly 3 No 4								
K	Large consumer durables (refrigerator, TV, sofa)	YES1 NO2 → NEXT ITEM	Yes, solely 1 Yes, jointly 2 Yes, solely and jointly 3 No 4								
L	Small consumer durables (radio, cookware)	YES1 NO2 → NEXT ITEM	Yes, solely 1 Yes, jointly 2 Yes, solely and jointly 3 No 4								
М	Cell phone	YES1 NO2 → NEXT ITEM	Yes, solely 1 Yes, jointly 2 Yes, solely and jointly 3 No 4								
N	Other land not used for agricultural purposes (pieces/plots, residential or commercial land)	YES1 NO2 → NEXT ITEM	Yes, solely 1 Yes, jointly 2 Yes, solely and jointly 3 No 4								
0	Means of transportation (bicycle, motorcycle, car)	YES1 NO2 → NEXT MODULE	Yes, solely								



MODULE G7: ACCESS TO FINANCIAL SERVICES

Nex	t, I'd like to ask about your h	ousehold's experience with borro	wing money or other iten	ns (in-k	ind) in	the pas	t 12 months.										
		Would you or anyone in your household be able to take a loan or borrow cash or a product inkind from [SOURCE] if they wanted to?	Has anyone in your household tried to take any loans or borrowed cash/in-kind from [SOURCE] in the past 12 months (that is, during the last [one/two] cropping seasons), from [PRESENT MONTH] last year to [PRESENT MONTH] this year)? CIRCLE ONE	most of the time? ENTER UP TO THREE (3) MEMBER IDS TOTHER CODES: NON-HH MEMBER94 NOT most of the time? DO NOT READ RESPONSE of the time? DO NOT RESPONDENT. LISTEN AND CHECK ALL THAT APPLY. DO NOT RESPONDENT. LISTEN AND CHECK ALL THAT APPLY. DO NOT RESPONDENT. LISTEN AND CHECK ALL THAT APPLY. DO NOT RESPONDENT. LISTEN AND CHECK ALL THAT APPLY. ENTER UP TO THREE (3) MEMBER IDS OTHER CODES: NON-HH MEMBER94 NOT		decision to borrow from [SOURCE] what was the money borrowed used for? ENTER UP TO THREE (3) OPTIONS TO RESPONDENT. LISTEN AND CHECK ALL THAT APPLY. OTHER CODES: NON-HH MEMBER94 NOT APPLICABLE98 What was the money borrowed used for? Under the money borrowed used for? DO NOT READ RESPONSE OF ITEM borrowed from [SOURCE] most of the time? ENTER UP TO THREE (3) MEMBER IDS OTHER CODES: NON-HH MEMBER94 NOT		decision to borrow from [SOURCE] most of the time? ENTER UP TO THREE (3) MEMBER IDS DO NOT READ RESPONSE OPTIONS TO RESPONDENT. LISTEN AND CHECK ALL THAT APPLY. OTHER CODES: NON-HH MEMBER94 NOT APPLICABLE98		decision about what to do with the money or item borrowed from [SOURCE] most of the time? ENTER UP TO THREE (3) MEMBER IDS OTHER CODES: NON-HH MEMBER94 NOT APPLICABLE98		decision about what to do with the money or item borrowed from [SOURCE] most of the time? ENTER UP TO THREE (3) MEMBER IDS OTHER CODES: NON-HH MEMBER94 NOT		responsible for repaying the loan from [SOURCE]? ENTER UP TO THREE (3) MEMBER IDS OTHER CODES: NON-HH MEMBER94 NOT APPLICABLE98			Over the past 12 months, have you are someone in your household been unable to repay a loan from [SOURCE]?
LEN	IDING SOURCES	G7.01	G7.02	G7.03			G7.04	G7.05 ID #1 ID #2 ID #3		G7.06		ID #3	G7.07				
A	Bank or formal financial institution	Yes1 No2 → NEXT SOURCE Maybe3	Yes, tried, but never granted	10 11	TO THE	10 110	Recurrent farm expenses (e.g., inputs) 1 Farm expenditures 2 Non-farm business 3 Household/family expenses 4 Personal expenses 5	15 #1	10 112	10 110	π1	π2	10 110	Yes1 No2			
В	Digital financial service provider, offered through a mobile network operator or other technology company (e.g., nano loans, digital loans)	Yes1 No2 → NEXT SOURCE Maybe3	Yes, tried, but never granted				Recurrent farm expenses (e.g., inputs)							Yes1 No2			
С	Cooperative or farmer- producer organization	Yes1 No2 → NEXT SOURCE Maybe3	Yes, tried, but never granted				Recurrent farm expenses (e.g., inputs) 1 Farm 2 expenditures 2 Non-farm business 3 Household/family expenses 4 Personal expenses 5							Yes1 No2			



Nex	t, I'd like to ask about your h	ousehold's experience with borro	owing money or other iter	ns (in-k	ind) in t	the pas	t 12 months.							
Would you or anyone in your household be able to take a loan or borrow cash or a product inkind from [SOURCE] if they wanted to?		Has anyone in your household tried to take any loans or borrowed cash/in-kind from [SOURCE] in the past 12 months (that is, during the last [one/two] cropping seasons), from [PRESENT MONTH] last year to [PRESENT MONTH] this year)? CIRCLE ONE	decisic from [S most o ENTER THREI MEMB OTHEI NON-H MEMB NOT	ER IDs	rrow =] ne?)	IF G7.02 = 2, 3 OR 4 What was the money borrowed used for? DO NOT READ RESPONSE OPTIONS TO RESPONDENT. LISTEN AND CHECK ALL THAT APPLY.	Who made the decision about what to do with the money or item borrowed from [SOURCE] most of the time? ENTER UP TO THREE (3) MEMBER IDS OTHER CODES: NON-HH MEMBER94 NOT APPLICABLE98		what money ed [] ;e?	repaying the loan from [SOURCE]? ENTER UP TO THREE (3) MEMBER IDs OTHER CODES: NON-HH MEMBER94 NOT APPLICABLE98			Over the past 12 months, have you are someone in your household been unable to repay a loan from [SOURCE]?	
LEN	IDING SOURCES	G7.01	G7.02	ID #1	G7.03		G7.04	G7.05		ID #3	G7.06		ID #3	G7.07
D	Self-help group	Yes1 No2 → NEXT SOURCE Maybe3	Yes, tried, but never granted				Recurrent farm expenses (e.g., inputs) 1 Farm 2 Non-farm business 3 Household/family expenses 4 Personal expenses 5							Yes1 No2
E	Group-based microfinance	Yes1 No2 → NEXT SOURCE Maybe3	Yes, tried, but never granted				Recurrent farm expenses (e.g., inputs)							Yes1 No2
F	Informal credit or savings groups, such as village savings and loan groups, funeral societies	Yes1 No2 → NEXT SOURCE Maybe3	Yes, tried, but never granted				Recurrent farm expenses (e.g., inputs) 1 Farm 2 Non-farm business 3 Household/family expenses 4 Personal expenses 5							Yes1 No2
G	Other NGO programs	Yes1 No2 → NEXT SOURCE Maybe3	Yes, tried, but never granted				Recurrent farm expenses (e.g., inputs) 1 Farm 2 Non-farm business 3 Household/family expenses 4							Yes1 No2



Next, I'd like to ask about your household's experience with borrowing money or other items (in-kind) in the past 12 months.														
W ho or kir		Would you or anyone in your household be able to take a loan or borrow cash or a product inkind from [SOURCE] if they wanted to?	Has anyone in your household tried to take any loans or borrowed cash/in-kind from [SOURCE] in the past 12 months (that is, during the last [one/two] cropping seasons), from [PRESENT MONTH] last year to [PRESENT MONTH] this year)? CIRCLE ONE	decision from [S] most of the second	Who made the decision to borrow from [SOURCE] most of the time? ENTER UP TO THREE (3) MEMBER IDS OTHER CODES: NON-HH MEMBER94		IF G7.02 = 2, 3 OR 4 What was the money borrowed used for? DO NOT READ RESPONSE OPTIONS TO RESPONDENT. LISTEN AND CHECK ALL THAT APPLY.	Who made the decision about what to do with the money or item borrowed from [SOURCE] most of the time? ENTER UP TO THREE (3) MEMBER IDs OTHER CODES: NON-HH MEMBER94 NOT APPLICABLE98		what money ed [] ie?	Who is usually responsible for repaying the loan from [SOURCE]? ENTER UP TO THREE (3) MEMBER IDS OTHER CODES: NON-HH MEMBER94 NOT APPLICABLE98			Over the past 12 months, have you are someone in your household been unable to repay a loan from [SOURCE]?
LE	NDING SOURCES	G7.01	G7.02		G7.03 ID #1 ID #2 ID #3		G7.04	G7.05 ID #1 ID #2 ID #3		ID #3	ID #1	G7.06		G7.07
			Don't know97				Personal expenses5							
н	Friends or relatives	Yes1 No2 → NEXT SOURCE Maybe3	Yes, tried, but never granted				Recurrent farm expenses (e.g., inputs) 1 Farm 2 expenditures 2 Non-farm business 3 Household/family expenses 4 Personal expenses 5							Yes1 No2
I	Other informal lenders, such as shopkeepers or money lenders (specify)	Yes1 No2 → NEXT SOURCE Maybe3	Yes, tried, but never granted				Recurrent farm expenses (e.g., inputs) 1 Farm 2 expenditures 2 Non-farm business 3 Household/family expenses 4 Personal expenses 5							Yes1 No2

QUES	TION	RESPONSE
G7.06	Do you, either by yourself or with someone else, currently have a financial account or bank account? This could be at a bank, or another formal institution. This can be an account that is used to save money, make or receive payments, or receive wages or financial help.	YES, SOLEY



ASK QU	JESTIONS G7.07 – G7.09 ONLY IF MOBILE MONEY AND MOBILE BANKING ARE RELEVANT IN THE LOCAL CONTEXT.	
	Do you, either by yourself or together with someone else, currently have a mobile banking or mobile money account. A mobile money account would include accounts such as [update with local examples e.g., m-Pesa, airtel Money, T-Kash, Tangaza, Equitel, KCB Mpesa etc.] other than a group account, such as [update with local examples of group mobile savings accounts e.g., Chama account]? Do you allow people who buy from you to pay for your goods or services through a mobile banking or mobile money account?	YES, SOLEY
G1.00	bo you allow people who buy from you to pay for your goods or services through a mobile banking or mobile money account?	No
G7.09	Do you pay any of your suppliers with a mobile banking or mobile money account?	Yes
	Have you personally used any of the following savings methods in the <u>last year</u> ? CHECK ALL THAT APPLY	Bank savings account
	[update with any other local examples]	Chap Chap, Tigo, BanRural)
G7.11	Do you own a mobile phone?	Yes1 No2→G7.13
G7.12	What kind of phone is it?	Smart phone (phone with internet facilities)
G7.13	Have you used a mobile phone or the internet to conduct mobile banking activities, make payments, or send or receive money in the past year?	Yes
G7.14	Do you have access to a business correspondent or banking agent?	Yes
	What are the different services used by the respondent through the business correspondent or banking agent? CHECK ALL THAT APPLY	Withdrawing money. 1 Depositing Money. 2 Remittances. 3 Utility bill payments. 4 Recharges. 5 Other, specify 97



MODULE G8: TIME ALLOCATION

G8.01: PLEASE RECORD A LOG OF THE ACTIVITIES FOR THE INDIVIDUAL IN THE LAST COMPLETE 24 HOURS (STARTING YESTERDAY MORNING AT 4 AM, FINISHING 3:59 AM OF THE CURRENT DAY). THE TIME INTERVALS ARE MARKED IN 15 MIN INTERVALS. MARK ONE ACTIVITY FOR EACH TIME PERIOD BY ENTERING THE CORRESPONDING ACTIVITY CODE IN THE BOX.

G8.02: CHECK THE BOX BELOW IF THE RESPONDENT WAS CARING FOR CHILDREN WHILE PERFORMING EACH ACTIVITY.

Now I'd like to ask you about how you spent your time during the past 24 hours. We'll begin from yesterday morning and continue through to this morning. This will be a detailed accounting. I'm interested in everything you did (i.e. resting, eating, personal care, work inside and outside the home, caring for children, cooking, shopping, socializing, etc.), even if it didn't take you much time. I'm particularly interested in agricultural activities such as farming, gardening, and livestock raising whether in the field or on the homestead. I'm also interested in how much time you spent caring for children, especially if it happened while you did some other activity (e.g., collecting water while carrying a child or cooking while watching after a sleeping child).

children, especially if it happened while you did s																												V IIIU	IUN	ume	ŧ yo	Ju S	peni	can	ng i	UI
		ı	Nigh	ıt		Мо	rnin	g				ı									I	Day	/								T					
4:00 5					00 6:00			6:00 7:00		8:00)		9:00			10:0	0:00		11:00			12:00			13:00		0	0 14:00		:00	00 15		:00		
G8.01 Activity (WRITE ACTIVITY CODE)																																				
G8.02 Did you also care for children? YESCHECK BOX NOLEAVE BLANK] 🗆 [] 🗆			ı 🗆]	1 🗆]] 0]					J [] [1 🗆					
			Day				enin	_									_					Nigh		 							_					
	16	5:00		17:0	00	18	8:00		19	9:00)	2	0:00)	- 2	21:0	0	2	2:00)		23:0	0	<u> </u>	24:	:00		1	:00)	<u> </u>	2:0	00		3:0)0
G8.01 Activity (WRITE ACTIVITY CODE)																																				
G8.02 Did you also care for NOLEAVE BLANK					-]						
ACTIVITY CODES FOR G8.01																																				
ASleeping and resting BEating and drinking CPersonal care DSchool (incl. homework) EWork as employed FOwn business work (other than H-L, O) GStaple grain farming H	High v La Small I Pou ens, du	value of arge livesto Itry ar cks, to Fishp Comm	crop vesto vesto ock rand oth urkey oond outing	farmin ock rai aising her sm rs, rab culture g (to/fr	ng sing ((sheenall ar obits) e	ep, goa nimals ork or	ats, pi raisi	igs) ng ool)	s)		P Q R S T V		Wea	aving oking omes aring aring aining	/ se tic w for for a g or T	vork child dult mee rave	(incl. (incl. dren s (sich tings eling (i	tile c fetch k, eld relat not fo	are ning derly ed to or we	wate) o agr ork o	r and ricult or scl	d fue	el) or ot	her I			ds	X. Y. Z.	 F	PO	ial a	eting	ities a eligio gs an O	and hus addord	ctivit ever (spe	ies ies its cify)
G8.03. In the last 24 hours did you work (at hor home including chores or other domestic activiti						.04A. Male	_		۷.			38.0 4 Iivelil										G	3.05	. WI	ho?					G	8.05	5a	G8	.05b	0	805c
about the same as usual, or more than usual?	J3) 163	o u ia	ıı uə	uai,	_	ES R				Т	Ò	are)	and	cou	ld n	ot ta	ake yo	our (child	wit	h					о т	HR	EE	(3)		ID#1	1	IC)#2		ID#3
LESS THAN USUAL 1 ABOUT THE SAME AS USUAL 2 MORE THAN USUAL 3 IF RESPONDENT IS MALE → G4.06					UN OL YES	VE A DER D?	5 YE	G4.0	04B		f	care) and could not take your child with you, is there someone who could care for your child in your absence? YES1 → G4.05 NO2 → G4.06 ENTER UP TO THEMEMBER IDS OTHER CODES: NON-HH MEMBER NOT APPLICABLE					ur absence? OTHE																			
																														•				αρ	40	- (0



MODULE G9: GROUP MEMBERSHIP

	ow I'm going to ask you about groups in the community. These can be either informal and customary groups.	Are you an active member of [GROUP]?
GROUP		G5.01
A	[Name of group or organization, such as the farmer producer organization or cooperative being promoted by this project]	YES
В	Water users' group	YES
С	Forest users' group	YES
D	Other agricultural, livestock, fisheries, or producer's group (including FPOs, marketing groups, village agricultural committees, and labor exchange groups	YES
E	Credit or microfinance group (including SACCOs / merry-go-rounds / VSLAs)	YES
F	Mutual help or insurance group (give named local examples)	YES
G	Trade and business association group, other than Farmer Producer Organizations [FPOs should be reported under A or D above)	YES
Н	Local government	YES
I	Religious group	YES
J	Other civic group (improving community) or charitable group (helping others)	YES
К	Other (specify):	YES



MODULE G10: GROUP COLLECTIVE AGENCY

READ: For this section, I am going to ask you to RATE THE EXTENT TO WHICH YOU HAVE BEEN ABLE TO ACCOMPLISH THINGS DURING THE PAST 12 MONTHS, from [PRESENT MONTH] last year to [PRESENT MONTH] this year. I will read several statements to you and ask you to indicate the EXTENT to which you were able to do what the statement says not at all, to a small extent, medium extent, or high extent.

Question	nign extent.	Documen	
		Response	
G10.1	To what extent did [name of FPO or cooperative] members agree on new goals	Not at all	1
	to advance together as a group.	Small extent	2
		Medium extent	
		High extent	
		Not applicable	
		Refused	
G10.2	To what extent did all members of [name of FPO or cooperative] give input into	Not at all	1
	decisions about which new goals were selected by the group.	Small extent	2
		Medium extent	3
		High extent	4
		Not applicable	98
		Refused	99
G10.3	To what extent did all members of [name of FPO or cooperative] give input into	Not at all	1
	decisions about how members cooperated with each other to advance group	Small extent	
	goals.	Medium extent	3
		High extent	
		Not applicable	
		Refused	
G10.4	To what extent did [name of FPO or cooperative] members cooperate with each	Not at all	
0.0	other to advance group goals.	Small extent	
	other to durantee group godie.	Medium extent	
		High extent	
		Not applicable	
		Refused	
G10.5	To what extent did [name of FPO or cooperative] make progress on advancing	Not at all	
010.5	group goals.	Small extent	
	group godis.	Medium extent	
		High extent	
		Not applicable	
		Refused	
G10.6	To what extent were members of [name of FPO or cooperative] motivated to	Not at all	
G10.0			
	cooperate with each other to advance your group goals, even when faced with	Small extent	
	challenges	Medium extent	
		High extent	
		Not applicable	
040.7	T + 4 + 4 F	Refused	
G10.7	To what extent did you and [name of FPO or cooperative] members help each	Not at all	
	other to recover from obstacles that you experience.	Small extent	
		Medium extent	
		High extent	
		Not applicable	
		Refused	99



MODULE G11. FREEDOM OF MOVEMENT

Next,	I am going to ask you some questions	about going to different places and any c	lifficulty you might have had going to th	nese places.
		In the last 12 months, were you ever prevented from going to [PLACE] when you wanted or needed to go?	During the past 12 months, has your spouse, your in-laws, or member of your family objected or discouraged you from going to [PLACE]?	Do these objections prevent you from going to [PLACE]?
PLAC	E	G6.01	G6.04	G6.05
Α	The closest market to either buy or sell goods	YES	YES1 NO2 → NEXT PLACE	YES1 NO2
В	Another village or neighborhood	YES	YES1 NO2 → NEXT PLACE	YES1 NO2
С	A bank or other formal financial institution	YES	YES1 NO2 → NEXT PLACE	YES1 NO2
D	The office of a local official	YES	YES1 NO2 → NEXT PLACE	YES1 NO2
E	A place to do agricultural work, such as a field, fishery/fishpond, or orchard	YES	YES1 NO2 → NEXT PLACE	YES1 NO2
F	A place where you do work for someone else	YES	YES1 NO2 → NEXT PLACE	YES1 NO2
G	A place where you purchase or sell goods or services for your business	YES	YES1 NO2 → NEXT PLACE	YES1 NO2
Н	A place where you would attend a group meeting, such as your farmer producer organization or cooperative	YES	YES1 NO2 → NEXT PLACE	YES1 NO2
ı	A place where you can receive such a training or learn skills that	YES1 NO2	YES1 NO2 → NEXT PLACE	YES1 NO2



	can help you improve your livelihood	DID NOT NEED OR WANT TO GO THERE3 → NEXT PLACE		
٦	A social-gathering place where people might gather to watch or play sports, or eat or drink together	YES	YES1 NO2 → NEXT PLACE	YES1 NO2



MODULE G12: AUTONOMY IN DECISION-MAKING

READ	ALOUD EACH STORY. USE THE MALE/FEMALE NAME CORRESPONDING WITH THE SEX OF THE RESPONDENT.	Are you like [NAME]? CIRCLE ONE
		G12.01
C1		YES1 NO2
	No one tells [LOCAL FEMALE NAME / LOCAL MALE NAME] how to use her (his) income. But, she (he) uses her (his) income in the way that her (his) family or community expects."	YES1 NO2
C3	[LOCAL FEMALE NAME / LOCAL MALE NAME] chooses to use her (his) income how she (he) personally wants to, and thinks is best."	YES1 NO2

MODULE G13: NEW GENERAL SELF-EFFICACY SCALE

Now I'm going to ask you some questions about different feelings you might have. Please listen to each of the following statements. Think about how each statement relates to your life, and then tell me if you agree or disagree with the statement.

ST	ATEMENTS	G8.01
A	I will be able to achieve most of the goals that I have set for myself.	Disagree
В	When facing difficult tasks, I am certain that I will accomplish them.	Disagree
С	In general, I think that I can obtain outcomes that are important to me.	Disagree
D	I believe I can succeed at most any endeavor to which I set my mind	Disagree



ST	ATEMENTS	G8.01					
E	I will be able to successfully overcome many challenges.	Disagree					
F	I am confident that I can perform effectively on many different tasks.	Disagree					
G	Compared to other people, I can do most tasks very well.	Strongly disagree					
Н	Even when things are tough, I can perform quite well.	Disagree					
I	I plan tasks carefully.	Disagree					
J	I look forward to my work.	Disagree					
K	I continue to work hard even when I face obstacles.	Disagree					
L	A person can get rich by taking on an activity that they are not sure will succeed.	Disagree					
M	It is important for me to do whatever I'm doing as well as I can even if it isn't popular with people around me.	Disagree					
N	I am motivated to do my work better than I have done in the past.	Disagree					
0	When a group I belong to plans an activity, I would rather direct it myself than just help out and have someone else organize it.	Disagree					
Р	It is important to me to perform better than others on a task.	Disagree					



ST	ATEMENTS	G8.01
		Agree3
Q	I like to have a lot of control over the events around me.	Disagree
R	My family and friends would say I am a very organized person.	Disagree
S	In uncertain times I usually expect the best.	Disagree



MODULE G14: ASPIRATIONS IN UPGRADING (optional)

Instructions to the enumerator: For this module, you will need a printed copy of the ladder shown to the right, and 20 beans or tokens for the exercise at the end.

For the first set of questions, read the instruction and ask the respondent to point to the rung of the ladder that best corresponds to their answer to each question. You will convert the respondent's answers to a numeric scale, with the lowest rung of the ladder representing a score of 1, each subsequent rung representing scores of 2, 3, 4, and the highest rung representing a score of 5.

For the beans exercise at the end, you will need to indicate 4 squares or boxes in which to place the beans. This can be done on a piece of paper, or simply by drawing a cross on the ground to demarcate four distinct areas. Make sure to confirm with the respondent that they understand what each box corresponds to as they allocate beans to it.

Read: The following questions ask for a response along a 1-5 scale. To understand this scale, look at this picture of a ladder. The highest rung of this ladder represents the best possible level, a score of 5, for example, the highest possible income level or best product quality. The lowest rung represents the lowest possible level, a score of 1, for example, the lowest possible product quality. For each question, please point to the rung on the ladder that best represents your answer.



will ask you about your household's annual income from the sale of [COMMODITY]. This is all income earned in cash (either in hand or deposited into your elling [COMMODITY] over the last 12 months, that is, from [PRESENT MONTH] last year to [PRESENT MONTH] this year. re on the scale would you place your household's current level of annual income from the sale of [COMMODITY]? re on the scale is the level of household annual income from the sale of [COMMODITY] that you would like to achieve? re on the scale is the level of annual household income from the sale of [COMMODITY] that you think you will achieve in the next five years? re on the scale is the level of annual household income from the sale of [COMMODITY] you had five years ago? [mark as 1 if not producing commodity 5 is ago] NDARDS	Score (1 – 5)
re on the scale would you place your household's current level of annual income from the sale of [COMMODITY]? re on the scale is the level of household annual income from the sale of [COMMODITY] that you would like to achieve? re on the scale is the level of annual household income from the sale of [COMMODITY] that you think you will achieve in the next five years? re on the scale is the level of annual household income from the sale of [COMMODITY] you had five years ago? [mark as 1 if not producing commodity 5 s ago] NDARDS	
re on the scale is the level of household annual income from the sale of [COMMODITY] that you would like to achieve? re on the scale is the level of annual household income from the sale of [COMMODITY] that you think you will achieve in the next five years? re on the scale is the level of annual household income from the sale of [COMMODITY] you had five years ago? [mark as 1 if not producing commodity 5 s ago] NDARDS	
re on the scale is the level of annual household income from the sale of [COMMODITY] that you think you will achieve in the next five years? re on the scale is the level of annual household income from the sale of [COMMODITY] you had five years ago? [mark as 1 if not producing commodity 5 s ago] NDARDS	
re on the scale is the level of annual household income from the sale of [COMMODITY] you had five years ago? [mark as 1 if not producing commodity 5 s ago] NDARDS	
s ago] NDARDS	
NDARDS	
will ask you about product quality and standards of the [COMMODITY] you produce. By standards we mean industry or buyer certifications, quality	Score (1 – 5)
ther measures to ensure the product is of a certain quality	
re on the scale would you place your current level of quality or standards in the production of [COMMODITY]?	
re on the scale is the level of quality or standards that you would like to achieve in the production of [COMMODITY]?	
re on the scale is the level of quality or standards in the production of [COMMODITY] that you think you will achieve in the next five years?	
re on the scale is the level of quality or standards in the production of [COMMODITY] you had five years ago? [mark as 1 if not producing commodity 5	
s ago]	
GOTIATE	
will ask you about negotiations around the sale of [COMMODITY], including wage negotiations with any hired labor, or price negotiations with service	Score (1 – 5)
selling inputs and those purchasing output.	` '
re on the scale is level of ability to negotiate aspects of the sale of [COMMODITY] that you have at present?	
re on the scale is the level of ability to negotiate aspects of the sale of [COMMODITY] that you would like to achieve?	
re on the scale is the level of ability to negotiate aspects of the sale of [COMMODITY] that you think you will achieve in the next 10 years?	
s W re re	GOTIATE vill ask you about negotiations around the sale of [COMMODITY], including wage negotiations with any hired labor, or price negotiations with service selling inputs and those purchasing output. e on the scale is level of ability to negotiate aspects of the sale of [COMMODITY] that you have at present? e on the scale is the level of ability to negotiate aspects of the sale of [COMMODITY] that you would like to achieve?



SOCIAL STATUS OR RECOGNITION AS AN ENTREPRENEUR Read: Now we will ask you about your social status as an entrepreneur in your community. By this we mean the recognition within your community of your identity as a						
businesswoman or businessman, as opposed to a wage laborer or housewife, and the respect community members accord to you in that role.						
G14.13	Where on the scale is the level of social status or recognition as an entrepreneur producing [COMMODITY] that you have at present?					
G14.14	Where on the scale is the level of social status or recognition as an entrepreneur producing [COMMODITY] that would you like to achieve?					
G14.15	Where on the scale is the level of social status or recognition as an entrepreneur producing [COMMODITY] that you think you will achieve in the next five years?					
G14.16	Where on the scale is the level of social status or recognition as an entrepreneur producing [COMMODITY] you had five years ago? [mark as 1 if not producing					
	commodity 5 years ago]					

Read Aloud: We just asked you about annual household income, quality of the product, your ability to negotiate and your social status as an entrepreneur. Here is a square representing each of these. Now I would like you to tell me which of these four aspects are the most important to you in the production of [COMMODITY]. Here are 20 beans. Please distribute all the 20 beans in the 4 squares according to their importance. No bean in a square means you do not attach any importance to that square. Many beans in a square means you attach a significant importance to it.

		G14.17
Α	Number of beans for annual household income	
В	Number of beans for quality of product	
С	Number of beans for your ability to negotiate	
D	Number of beans for social status as an entrepreneur	



MODULE G15: ACCESS TO RELIABLE SANITATION (optional)

Next, I am going to ask you some questions about access to sanitation facilities. Think about where you spend most of your time when you are working. This place might be an agricultural field, a market, or a building. We will call this your place of work.

Question		Response				
G15.01	At or near your place of work, is there a place where you think it is safe and clean for you to urinate?	Yes 1 No 2 Don't know 97 NA 98				
G15.02	At or near your place of work, is there a place where you think it is safe and clean for you to defecate?	Yes				
G15.03	At or near your place of work, is there a place for you to wash your hands?	Yes				
G15.04	CAPI: Is the respondent a woman?	Yes				
G15.05	Have you had a menstrual period in the past twelve months?	Yes 1 No 2→ Next module Refused to answer 98→ Next module				
G15.06	At your place of work, is there a place where you think it is acceptable for you to change your cloth, pad or similar product without fear of being exposed or attacked?	Yes. 1 No. 2 Na. 96 Don't know. 99				
G15.07	At your place of work, is there a place where you can dispose of your cloth, pad, or similar product when needed?	Yes. 1 No. 2 Reusable. 3 Don't know. 99				
G15.08	How many times a month do you not go to your place of work because you feel there are not adequate facilities (e.g. place to change your pad/cloth) for you to manage your menstrual needs?	0. 1 1 - 2. 2 3 - 5. 3 MORE THAN 5. 4 NA. 96 DON'T KNOW. 99				



MODULE G16: SAFE AND HEALTHY WORK ENVIRONMENTS

G16.01	Read: Now I'm going to read some statements to you. I want to learn about your opinions. Please tell me whether you completely disagree, partly disagree, partly agree, or completely agree with each statement.		
Α	Everyone should have the right to work in an environment that is safe for them and free of equipment and products that might cause them harm.	Completely disagree	1
В	Everyone should have the right to take a break during the time that they work if they feel unwell, too hot, or too thirsty.	Partly disagree Partly agree Completely agree	2
С	Everyone should have the right to have safety materials or protective equipment while they work.	Completely agree	4
D	Everyone should have the right to be treated respectfully by those they interact with while they are working.	Refused	88
Е	Everyone should have the right to take time off work as they deem necessary without long term negative consequences.	Not applicable	.66
		Carriot answer	
G16.02	Read: Now I am going to ask you some questions about actual work experiences and how you might respond to them. Please let me know if you would be able to do this or never, under some circumstances, under most circumstances, or always or almost always.		
Α	If you felt that something in your work environment was unsafe or could cause you or someone else harm, would you be able to change it or have someone else make a change so that you would feel safe?	NeverUnder some circumstances	
В	If you felt unwell, too hot, or too thirsty while working, would you be able to take a break?	Under most circumstances	
С	If you needed safety materials or protective equipment while you were working, would you be able access and use them?	Always or almost always Refused	
D	If you were treated badly or disrespectfully by someone that you interacted with while working, would you be able to put a stop to the maltreatment?	Not applicable	66
E	If you were sick or unwell, would you be able to decide to take time off or work without long term negative consequences.?		



MODULE G17: SEXUAL HOSTILITY

Note to interviewer: Check for and confirm privacy before continuing with this section.

Next, I will ask you some questions about some experiences that your or other might have while earning your livelihood. Think about where you spend most of your time when you are working. This place might be an agricultural field, a market, or a building. We will call this your place of work.

		When you are at your place of work, how often do people [OCCURRENCE]?	In general, for [men/women] of your age who live in your community, when they are at their place of work, how often do you think that they have experiences where others [OCCURRENCE]?
OCCUR	RENCE	G17.01	G17.02
A	Treat [you/them] as "lesser" because of [your/their] sex, for example, spoken badly, interrupted, or ignored?	Always 1 Often 2 Sometimes 3 Never 4 No place of work 97 Refused to answer 98	Always 1 Often 2 Sometimes 3 Never 4 Refused to answer 98
В	Tell [you/them] sexual stories or jokes or make sexual comments?	Always 1 Often 2 Sometimes 3 Never 4 No place of work 97 Refused to answer 98	Always 1 Often 2 Sometimes 3 Never 4 Refused to answer 98
С	Make remarks that people of [you/them] sex are not suited for the kind of work [you/they] do?	Always 1 Often 2 Sometimes 3 Never 4 No place of work 97 Refused to answer 98	Always 1 Often 2 Sometimes 3 Never 4 Refused to answer 98
D	Spread rumors about [your/their] sexuality, sex life, etc.?	Always 1 Often 2 Sometimes 3 Never 4 No place of work 97 Refused to answer 98	Always 1 Often 2 Sometimes 3 Never 4 Refused to answer 98



		When you are at your place of work, how often do people [OCCURRENCE]?	In general, for [men/women] of your age who live in your community, when they are at their place of work, how often do you think that they have experiences where others [OCCURRENCE]?
OCCUR	RENCE	G17.01	G17.02
E	Make unwanted attempts to establish a romantic or sexual relationship with [you/them] despite [your/their] efforts to discourage it?	Always 1 Often 2 Sometimes 3 Never 4 No place of work 97 Refused to answer 98	Always 1 Often 2 Sometimes 3 Never 4 Refused to answer 98
F	Touch [you/them] in a sexual way without [your/their] permission?	Always 1 Often 2 Sometimes 3 Never 4 No place of work 97 Refused to answer 98	Always 1 Often 2 Sometimes 3 Never 4 Refused to answer 98
G	Offer [you/them] work-related benefits [you/them] with the expectation of sexual favors?	Always 1 Often 2 Sometimes 3 Never 4 No place of work 97 Refused to answer 98	Always 1 Often 2 Sometimes 3 Never 4 Refused to answer 98
Н	Sexually proposition [you/them], for example invited [you/them] to engage in sexual intercourse with them?	Always 1 Often 2 Sometimes 3 Never 4 No place of work 97 Refused to answer 98	Always 1 Often 2 Sometimes 3 Never 4 Refused to answer 98
I	Make [you/them] afraid you will be treated poorly, for example threatened [you/them], did not give [you/them] work, or ignored [you/them] if [you/they] didn't cooperate sexually?	Always 1 Often 2 Sometimes 3 Never 4 No place of work 97 Refused to answer 98	Always 1 Often 2 Sometimes 3 Never 4 Refused to answer 98

MODULE G18: ATTITUDES ABOUT VIOLENCE AGAINST WOMEN



Now I would like to ask about your opinion on the following issues. Please keep in mind that I am not asking about your personal experience or whether the following scenarios have happened to you. I would only like to know whether you think the following issues are acceptable.

	nappened to you. I would only like to know whether you think the following issues are acceptable.	
G18.	1 In your opinion, is a husband justified in hitting or beating his wife in the following situations?	RESPONSE
Α	If she goes out without telling him?	YES
В	If she neglects the children?	YES
С	If she burns the food?	YES
D	If she argues with him?	YES
E	If she applies for a new job or engages in a new income-generating activity without his consent?	YES
F	If she refuses to have sex with him?	YES
G	If she speaks with other men in the community?	YES

Those are all of my questions. Thank you so much for speaking with me toda	Those are all of my	questions.	Thank	you so mu	ch for s	speaking	with me	e toda
--	---------------------	------------	-------	-----------	----------	----------	---------	--------

Qualitative tools

The life-history, gender balance tree and the seasonality calendar tools can be provided on request.