Before the Intervention: Baseline Characteristics of Rural Women in the Lakhpati Didi Initiative in Haryana

First Report in the Capstone Report Series

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Executive Summary

Context and Objective

This report presents baseline evidence on the economic conditions, institutional access, and capability constraints faced by women identified under the Potential Lakhpati Didi (PLD) initiative in Haryana [1]. While Self-Help Groups (SHGs) have expanded access to credit and collective platforms, variation persists in income generation, enterprise performance, and access to government support. Understanding this baseline heterogeneity is critical to assessing whether Indus Action's intervention can increase scheme uptake and translate this into sustained income growth.

Using primary survey data collected from SHG members across Haryana, this study examines variation in enterprise income, livelihood types, scheme access, and key capability indicators, including women's agency, market linkages, and SHG functioning. The analysis is primarily descriptive, with a focus on differences across enterprise income groups to identify patterns of inclusion, constraints, and potential targeting gaps prior to intervention rollout.

Key Findings

The findings reveal a highly heterogeneous economic landscape. Income levels vary substantially across livelihood types and districts, with a large share of women concentrated in low and volatile income segments.

Across income groups, differences in capabilities and enterprise-related indicators are present but do not follow a clear linear pattern. While higher-income women demonstrate stronger market linkages and greater entrepreneurial confidence, other indicators — including SHG support and women's agency — do not consistently increase with income. In several cases, middle-income groups perform relatively better on specific indicators, though these differences are not uniform across all measures.

At the lower end of the income distribution, women face multiple constraints, including more limited access to markets, capabilities, and institutional support. These patterns suggest that financial inclusion alone may not be sufficient to enable enterprise growth for lower-income households.

[1] This report is the first in a two-part capstone report package. A companion report — the Prospective Evaluation Strategy — presents the proposed evaluation framework, including the baseline balance check, the matching plus Difference-in-Differences approach, and key recommendations for future data collection rounds.

Patterns of scheme access further highlight important gaps. While overall uptake is low, both access and intensity of participation vary across income groups. Middle-income women appear to engage more with existing institutional structures, while the lowest-income group is not consistently the most reached, despite being the primary target population. This suggests that barriers to access may extend beyond awareness and could include procedural or capability-related constraints.

Measurement and Data Considerations

The analysis also identifies important measurement challenges relevant for interpreting enterprise outcomes. Comparisons between self-reported and calculated profit indicate inconsistencies in reporting, likely driven by recall bias, informal accounting practices, and ambiguity around the definition of costs and revenues. These discrepancies underscore the need for improved survey design and careful interpretation of income-based measures in subsequent rounds of data collection.

Implications for Evaluation Design

The baseline findings highlight the importance of accounting for heterogeneity in both outcomes and constraints when evaluating program impacts. Differences across income groups suggest that average treatment effects may mask important variation in how different households respond to the intervention.

In addition, observed gaps in scheme access and capability indicators point to the need for tracking multiple dimensions of change, including not only income outcomes but also intermediate indicators such as market access, institutional engagement, and women's agency.

Evaluation Strategy and Role of Baseline

The proposed matching and difference-in-differences strategy offers a credible approach to estimating the overall impact of the intervention package. However, given that participation in individual schemes is not randomly assigned, the evaluation will not be able to isolate the causal effects of specific scheme components.

As such, this baseline serves as a critical reference point for interpreting future changes over time, while also informing refinements in data collection, measurement, and analysis ahead of midline and endline evaluation.

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Glossary

Abbreviation	Full Form / Definition
CSC	Citizen Service Centre
DAY-NRLM	Deendayal Antyodaya Yojana – National Rural Livelihoods Mission (National Rural Livelihoods Mission under the Deendayal Antyodaya Yojana, meaning "Deendayal End-of-Poverty Scheme")
DiD	Difference-in-Differences
EE	Eligibility Engine
HRLM	Haryana Rural Livelihoods Mission
IA	Indus Action
IV	Instrumental Variable
IVRS	Interactive Voice Response System
near-PLD	A woman SHG member who narrowly missed the Eligibility Engine threshold and was therefore not matched to welfare schemes under the Lakhpati Didi initiative; used as the control group in this study
NGO	Non-Governmental Organisation
NITI Aayog	National Institution for Transforming India
PDS	Public Distribution System
PLD	Potential Lakhpati Didi (Potential "Lakhpati Sister," referring to women with the potential to reach an annual household income of one lakh rupees)
PMAY-G	Pradhan Mantri Awas Yojana–Gramin (Prime Minister's Rural Housing Scheme)
PMEGP	Prime Minister's Employment Generation Programme
PMFME	Prime Minister Formalization of Micro Food Processing Enterprises Scheme
PMUY	Pradhan Mantri Ujjwala Yojana (Prime Minister's Clean Cooking Gas Scheme)

Abbreviation	Full Form / Definition
RDD	Regression Discontinuity Design
SHG	Self-Help Group
SMS	Short Message Service
SRLM	State Rural Livelihoods Mission

1. Introduction

Haryana State has experienced steady economic growth, reflecting in rising per capita income and structural shifts in the composition of Gross State Domestic Product (Gupta and Chander, 2025). Still, significant regional and gender disparities in employment growth persist. To address these gaps, the Haryana Rural Livelihoods Mission was established in 2013 as part of the Deendayal Antyodaya Yojana — National Rural Livelihoods Mission (DAY-NRLM), a Ministry of Rural Development initiative designed to foster entrepreneurship among rural women. As of the most recent reports, HRLM covers 587,737 households across 59,102 SHGs. By expanding the base of women entrepreneurs in rural areas, the Mission seeks to provide women with secure long-term sources of income, thus stimulating economic growth in less developed communities. The central goal of this effort is to improve women's access to HRLM schemes to support women-led livelihood activities in rural Haryana.

To support the mission, Indus Action (IA) is implementing the PLD initiative which targets 224,000 women who the government believes are able to increase their annual household income to 1 Lakh Rupees should they maximize their HRLM benefits coverage over the course of a year. Indus Action has identified several gaps in government support as the main barriers to achieving this income goal. The gaps include a lack of formal mechanisms to identify one's eligibility for schemes, a lack of formal mechanisms to apply for all schemes offered across government agencies, low access to business loans, low support for entrepreneurs in getting their goods to market, and no structured grievance redressal system. In response, the treatment design includes an awareness effort, government field staff training, application support, and improvements to information flows regarding scheme applications. PLDs will receive IVRS/SMS messaging to PLDs about government schemes. District, Block, and Village field staff to support will receive IA facilitated capacity building to assist PLDs in scheme applications through Citizen Service centers. PLDs will also have access to camps at the village and cluster level to receive support in scheme applications. The initiative aims to improve information flows at the government level by designing SOPs for convergence with other government departments to deliver scheme benefits. At the participant level, PLDs will have access to an application tracking system and a grievance redressal system.

IA will assess the impact of PLD initiative over a year long study. The study aims to answer the research questions: Does the IA intervention package increase the uptake of the target HRLM schemes? Does this intervention package facilitate household income growth? In contribution to

the full study, we present a baseline analysis report covering demographic information, scheme access and awareness, sources of livelihood, SHG function, and women's agency. We also propose a methodological approach for endline analysis upon completion of the panel data. This report intends to serve as an initial reference point to which Indus Action and the Haryana State Government can compare subsequent rounds of data to identify improvements to state scheme delivery post implementation of the PLD initiative.

The report is strctured as follow. Chapter 2 synthesizes the existing literature on SHGs, anti-poverty welfare scheme uptake, and income. Chapter 3 briefly describes the baseline dataset including data collection and data cleaning processes. Chapter 4 presents the baseline data analysis and key findings on the economic landscape. Finally, Chapter 6 concludes with a discussion of our key takeaways and recommendations.

2. Literature Review

2.1 SHG-Based Interventions and Women's Economic Outcomes in Rural India

Women in rural India continue to face low labor-force participation, limited access to productive assets, and uneven delivery of formal credit and welfare services. Despite several decades of growth, rural poverty remains deeply gendered. Against this backdrop, SHGs have emerged as one of India's most prominent policy instruments for women's collective action, local entrepreneurship, and financial inclusion. Anchored in the National Rural Livelihoods Mission (Haryana State Rural Livelihoods Mission, n.d.) and adapted through state initiatives such as the HRLM, SHGs aim to promote savings, access to credit, and sustainable livelihoods while enhancing women's agency in household and community decision-making.

SHGs have long been central to India's rural-development strategy, functioning as platforms for women's collective savings, access to credit, and small-enterprise growth. Evidence from large-scale evaluations consistently shows that SHG participation enhances financial access and household resilience. Using a quasi-experimental design covering six states, Barooah et al. (2020) found that after 2.5 years of SHG membership, household income rose by 19% and savings by 28%, while reliance on informal credit declined by 20%. In a multi-state panel study, Swain and Varghese (2009) demonstrated that SHG membership improved asset accumulation — particularly livestock and durable savings — suggesting that collective savings mechanisms smooth consumption and help households build wealth over time. Complementing this, Desai and Joshi (2014) show that SHG-bank linkages improved women's credit-cycle access and repayment discipline.

However, these gains were mainly driven by diversification into wage employment and participation in government work-assistance schemes rather than by enterprise creation. While these studies underscore SHGs' success in promoting inclusion, they also reveal limits to livelihood transformation. SHG-linked microfinance often prioritizes outreach and repayment performance over enterprise monitoring, resulting in credit use that is largely consumptive. The absence of integrated value-chain support and post-credit mentoring further constrains productive diversification. Together, these findings indicate that although financial inclusion is a necessary first step, it is insufficient for sustained income growth. Complementary interventions — market integration, skill development, and access to technology — are essential for SHGs to evolve from savings groups into sustainable livelihood ecosystems.

The literature reveals a consistent pattern: SHGs improve access to finance, but their transformative impact depends on the institutional ecosystem that surrounds them (Maheshwari and Goyal, 2016; Panda, 2019). Governance bottlenecks such as fragmented responsibilities among banks, rural-development authorities, and welfare departments undermine convergence across programs (Panda, 2019; Singh and Mittal, 2012). When training, technology, and supply-chain linkages are integrated, SHGs are more likely to transition from micro-savings collectives into engines of livelihood diversification and women's economic empowerment.

Beyond economic outcomes, SHGs also play a role in shaping women's agency and participation. SHG networks enhance women's visibility within local governance spaces and increase their ability to claim welfare benefits (Kumar et al., 2019). SHG participants are more likely to engage with local governance structures and access public services, reflecting the "network capital" created through collective participation, which enhances women's bargaining power and ability to engage bureaucratic actors (Datta and Kundu, 2022; Kumar et al., 2019). However, SHG membership strengthens awareness and engagement with welfare programs but does not automatically translate into access, as institutional and procedural barriers continue to limit outcomes (Panda, 2019; Rao et al., 2021).

These dynamics are particularly relevant in the Haryana context, where SHGs primarily operate as credit-focused groups, with limited coordination between HRLM and welfare departments (Maheshwari and Goyal, 2016). Weak inter-departmental convergence constrains SHGs' role as both livelihood and entitlement facilitators despite formal eligibility. Overall, the literature suggests that while SHGs have been effective in expanding financial inclusion and social participation, their ability to generate sustained improvements in income and enterprise development remains uneven and contingent on the strength of supporting institutions.

2.2 Welfare Scheme Uptake

Regarding the uptake of livelihood and anti-poverty welfare schemes, the literature points to unawareness as the main barrier. The NITI Aayog evaluation of the Mahila Shakti Kendra scheme to promote women's economic empowerment found that only 13% of the surveyed target ($N = 511$) were aware of the scheme suggesting that the vast majority of intended beneficiaries were unaware of the services offered (Sawhney, 2025). Similar to national efforts, Haryana State facilitates several government schemes across several agencies to improve women's economic empowerment, yet the allotted amount of benefits are not fully realized. The Singh and Mittal (2012) study of scheme awareness among households in Haryana that are below the poverty line finds that awareness is a decisive barrier to uptake along 5 specific dimensions: Eligibility Awareness, Scheme

Awareness, Procedural Awareness, Benefit Awareness, and Resource Awareness. Government agencies and supporting organizations leverage the SHG-model of scheme delivery to address information asymmetries. There remains room to improve this model by considering how uptake is shaped by variation in size, lifespan, member household dynamics, and priorities of SHGs.

3. Data Collection

3.1 IA's Sampling and Data Collection Approach

Baseline data were collected through in-person surveys with members of Self-Help Groups (SHGs), conducted either at Government Block Offices or at respondents' homes. The final sample consists of 511 households surveyed across two districts in Haryana—Karnal and Nuh (Mewat)—covering four administrative blocks: Assandh and Karnal (Karnal district), and Ferozepur Jhirka and Nuh (Nuh district).

The sampling strategy followed a proportional quota approach to reflect the distribution of livelihood types in the target population. Approximately 50% of respondents were engaged in agriculture or livestock-related activities, 25% in daily wage labor, and 25% in trading, services, or other occupations.

The treatment group (406 households) comprises women identified through a government-constructed dataset of Potential Lakhpati Didis (PLDs), based on eligibility criteria for scheme participation. The control group (105 households) consists of women with similar observable profiles who narrowly missed the eligibility threshold and were drawn from the same SHGs. This design supports comparability between treatment and control groups at baseline.

The original sampling plan targeted 400 households (300 treatment and 100 control). However, a total of 511 completed surveys were collected in the field. These additional observations reflect surveys that fell outside initial sampling quotas but were retained for analysis at the request of Indus Action.

3.2 Survey Instrument and Key Variables

The baseline survey instrument was designed to capture multiple dimensions of women's economic activity, institutional access, and decision-making capacity. The survey comprises 85 questions organized across key measurement domains relevant to the study's objectives.

At the household and individual level, the survey collected demographic information including age, education, household size, and the number of earning members. These variables provide important context for understanding variation in economic outcomes across respondents.

To capture livelihood and enterprise activity, the survey gathered detailed information on primary occupation, enterprise characteristics, income, profits, expenditures, employment, and savings. These variables form the core economic outcomes used in the analysis.

The instrument also included a dedicated module on scheme access, covering awareness, eligibility, and uptake of government programs. This allows for an assessment of both access to and engagement with institutional support systems.

In addition, the survey measured women's agency and capabilities through indicators related to decision-making, market access, and entrepreneurial confidence. These variables are intended to capture non-financial constraints that may influence enterprise performance and income generation.

Finally, the survey collected information on SHG participation, including membership, leadership roles, frequency of meetings, and the extent of support received through SHGs. These indicators help assess the role of SHGs as institutional platforms in shaping economic outcomes.

The final dataset consists of 511 observations and 333 variables, reflecting both raw survey responses and constructed indicators used in the empirical analysis.

Construction of Indices

To capture multidimensional aspects of women's economic activity and capabilities, we constructed four composite indices using Anderson's inverse-covariance weighted index method: market linkage, entrepreneurial confidence, women's agency, and SHG support. Each index aggregates multiple related indicators into a single standardized measure with a mean of zero and a standard deviation of one. This approach gives greater weight to indicators that provide more independent information and reduces the influence of highly correlated indicators.

Table 3.1. Constructed Indices: Definitions and Components

Index	What it captures	Main components	How to interpret
Market linkage	Market access and connectivity	Selling channels, distance, barriers, support sources, and contracts	Higher values indicate stronger market access
Entrepreneurial confidence	Business self-efficacy	Confidence in running an enterprise, calculations, business relationships, marketing, and technology	Higher values indicate greater confidence
Women's agency	Household decision-making power	Decisions on household matters, earnings, children, health, food, and childbearing	Higher values indicate greater agency
SHG support	SHG participation and support	Leadership, meetings, enterprise support, scheme support, and information-sharing	Higher values indicate stronger SHG support

Notes: All indices are standardized; values reflect relative position within the sample rather than percentages.

Table 3.2. Summary Statistics for Constructed Indices

Index	N	Mean	SD	Min	P25	P50	P75	Max	Skewness
Market linkage index (ICW)	511	0.00	1.00	-3.26	-0.24	0.21	0.61	2.38	-0.92
Entrepreneurial confidence index (ICW)	511	0.00	1.00	-2.34	-0.42	0.12	0.66	1.35	-0.85
SHG support index (ICW)	511	0.00	1.00	-4.17	-0.61	0.24	0.60	1.82	-0.79
Women's agency index (ICW, excl. enterprise)	511	0.00	1.00	-4.26	-0.69	0.06	0.56	1.75	-0.40

Notes: All indices are standardized to have mean zero and standard deviation one. P25, P50, and P75 refer to the 25th, 50th, and 75th percentiles, respectively.

Data Overview

Preliminary examination of the baseline data indicates substantial heterogeneity across key economic variables, particularly those related to enterprise performance, income, and debt. Summary statistics suggest considerable variation in outcomes such as enterprise income, business profit, client counts, and household financial indicators.

These patterns reflect differences in livelihood types, enterprise scale, and household economic conditions across respondents. Such heterogeneity is consistent with the underlying structure of

micro-enterprise data and is important for interpreting variation in outcomes across the sample.

3.3 Data Challenges and Measurement Considerations

The baseline data presents several measurement and data quality challenges that are important for interpreting the results and informing the empirical strategy. In particular, features of the data such as extreme values and inconsistencies in self-reported measures require careful handling to ensure that the analysis remains both robust and economically meaningful.

We highlight two key challenges in this section and describe the approach adopted to address them.

Challenge 1: Outliers and Extreme Values

A key challenge in the baseline data arises from the presence of extreme values across several economic variables, particularly those related to enterprise performance, income, and debt. As discussed in the data overview, many of these variables exhibit high dispersion and right-skewed distributions, with a small number of observations taking on disproportionately large values.

These features raise two important concerns. First, extreme values may reflect genuine economic variation in enterprise scale and household resources. Second, they may also arise from reporting errors, recall bias, or inconsistencies in how respondents interpret survey questions. This makes it necessary to adopt a structured approach to identifying and handling outliers.

Outlier Detection

To address this challenge, we first implement a systematic approach to identifying extreme values in the data using a non-parametric, distribution-based rule:

$$\text{Cutoff} = P75 + 1.5 \times IQR \tag{3.1}$$

where IQR denotes the interquartile range of the variable. Observations exceeding this threshold were flagged as potential high-end outliers.

This approach avoids reliance on distributional assumptions and provides a consistent and transparent rule for screening extreme values across variables with differing scales and units.

Outlier detection was conducted across key groups of variables used in the analysis, including:

- **Enterprise performance variables:** monthly_enterprise_income, business_profit, ttl_business_expenditure

addnl_investment

- **Household economic variables:** monthly_hh_income, hh_income_saved, land_value
- **Debt-related variables:** monthly_debt_payment, contribution_debt_payment, debt_duration
- **Enterprise scale and activity variables:** prev_month_clients, max_clients, min_clients, num_enterprises, num_employees, staff_payment
- **Household characteristics:** hh_size, earning_members, respondent_age

This step generates a set of flagged observations that are subsequently evaluated to distinguish between true data anomalies and economically plausible variation.

Interpreting Outliers

Flagged observations were not automatically treated as data errors. Instead, we applied a second layer of substantive assessment to distinguish between true anomalies and economically meaningful variation.

In the context of micro-enterprise data, large values are often plausible and may reflect genuine differences in enterprise scale, asset ownership, or market access. For example, high values of monthly enterprise income, business profit, and additional investment can arise from larger or more established enterprises. Similarly, elevated levels of land value or household income may capture underlying heterogeneity in wealth and resource endowments.

Debt-related variables require particular caution in interpretation. High values of monthly debt payments or long debt durations may reflect active borrowing cycles or recent investment activity rather than reporting errors. As a result, extreme values in these variables are not necessarily inconsistent with expected economic behavior.

At the same time, the presence of discrepancies across related variables suggests potential reporting challenges. In particular, comparisons between self-reported and calculated profit indicate that respondents may interpret key financial concepts differently or may not consistently account for all cost components when reporting enterprise outcomes.

Taken together, these considerations underscore the importance of interpreting flagged observations within their economic context, rather than relying solely on statistical thresholds.

Outlier Treatment Strategy

Following the identification and interpretation of outliers, we adopted a conservative and context-specific approach to data treatment. Flagged observations were not automatically modified or removed based solely on statistical thresholds.

Given the nature of micro-enterprise data, where substantial variation in scale and performance is expected, we retained observations that were economically plausible, even if they fell beyond the standard upper-fence cutoff. In particular, extreme values in variables such as enterprise income, investment, client counts, and debt were preserved where they were consistent with realistic economic behavior.

At the same time, flagged observations were carefully reviewed to identify potential data quality concerns. In cases where extreme values appeared to reflect inconsistencies across related variables or implausible reporting patterns, these observations were treated with caution in subsequent analysis.

Importantly, we did not apply blanket winsorization across all variables. Instead, the treatment of outliers was guided by a combination of distributional diagnostics and substantive economic reasoning, ensuring that genuine variation in the data was preserved while minimizing the influence of potential reporting errors.

This approach allows the analysis to balance robustness with fidelity to the underlying data-generating process, particularly in settings characterized by high heterogeneity and measurement noise.

Challenge 2: Measurement of Enterprise Profit

A second key challenge in the baseline data relates to the measurement of enterprise profit. The survey captures both self-reported profit and a constructed measure of profit based on reported revenue and expenditure, allowing for a comparison between the two.

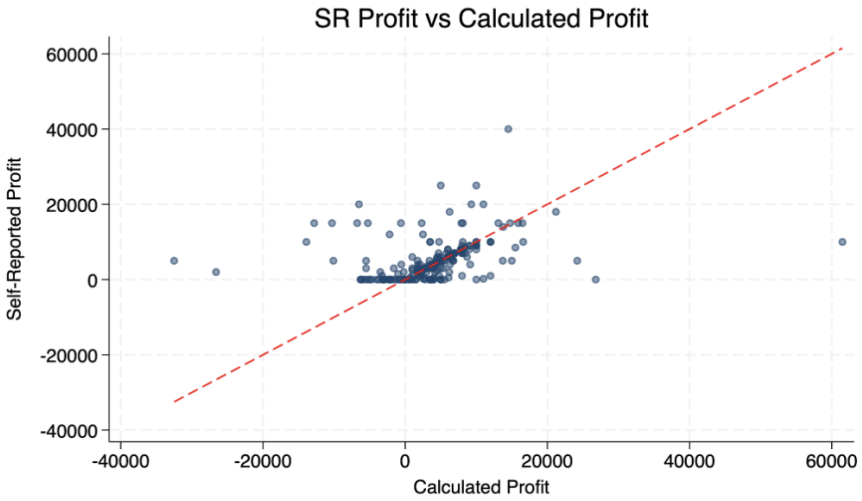
As shown in Figure 3.1, while there is a positive relationship between self-reported and calculated profit, there is substantial dispersion around the 45-degree line. A large number of observations deviate meaningfully from this benchmark, indicating inconsistencies between the two measures.

In particular, several enterprises report profit levels that are either substantially higher or lower than those implied by their reported revenue and expenditure. These discrepancies may arise from recall error, reporting bias, or differences in how respondents conceptualize profit—such as excluding

certain costs, incorporating irregular earnings, or relying on approximate estimates rather than formal accounting.

This measurement challenge has important implications for the interpretation of enterprise outcomes. Self-reported profit may capture perceived or smoothed earnings, while calculated profit reflects a more standardized accounting measure based on survey inputs. As a result, reliance on either measure in isolation may lead to misleading inferences.

Figure 3.1. Self-reported profit versus calculated profit



Note: The dashed 45-degree line indicates equality between self-reported and calculated profit. Points above the line represent cases where self-reported profit exceeds calculated profit; points below the line represent the reverse.

4. Baseline Analysis Part I: Economic Profile, Program Access, and Women's Capabilities

This section presents the main findings from the baseline analysis, covering respondents' demographic characteristics, economic profile and vulnerability, scheme awareness and uptake, market integration, women's entrepreneurial capabilities, their agency, and SHG support.

4.1 Respondent and Household Demographic Profile

Table 4.1 presents the demographic proportions of the sample (N = 511). The sample of 511 women spans two districts in Haryana, Karnal (urban, 40%) and Nuh Mewat (rural, 60%), allowing us to compare how geographic and infrastructural context shapes livelihood and entrepreneurship outcomes, which we take up in later sections.

Table 4.1. Demographic Overview

Demographic Category	Value
Panel A: Individual Level	
Age (median)	38 years
Illiterate	42.7%
Married	89.2%
Makes household decisions	65.2%
SHG Role	
President	12.5%
Treasurer	13.7%
Secretary	7.6%
General member	66.1%
Panel B: Household Level	
Rural	60.3%
Household size (median)	5 members
Earning members (median)	2 members

Notes: Proportions use the full sample as the denominator. Age, household size, and earning members are reported as medians.

The demographic profile of the sample portrays a population navigating significant economic pressure with limited household resources. The average respondent is approximately 39 years old, married, and lives in a household of 5–6 members with a median of two earning members. High illiteracy (42.7%) demonstrates that financial and livelihood decision-making often occurs without formal literacy. Of the sample, 65% of women report making their own daily household decisions, compared to 23% who defer to a spouse. Taken together, these figures suggest that households in the sample face a relatively high dependency burden: the median household has five members but only two earning members. This creates a resource-constrained setting in which women's livelihood activities and household decisions take place.

All 511 women are members of a self-help group (SHG), the institutional entry point for the program. The majority (66%) are general members, while 34% hold formal leadership roles: Treasurer (8%), Secretary (14%), or President (13%). We understand that years of operation, size, value, and use preferences vary across SHGs. Still, we consider this distribution relevant for interpretation of leadership position as a proxy for social standing and organizational experience within the community. The variation in SHG rank allows the analysis to examine whether existing status structures mediate program outcomes.

4.2 Economic Profile & Vulnerability

This sub-section examines the economic profile of women in the sample. It describes their main livelihood activities, income distribution by district and livelihood type, land ownership patterns, savings behavior and access to bank accounts, debt profile, and exposure to household shocks.

Main Livelihoods and Enterprise Structure

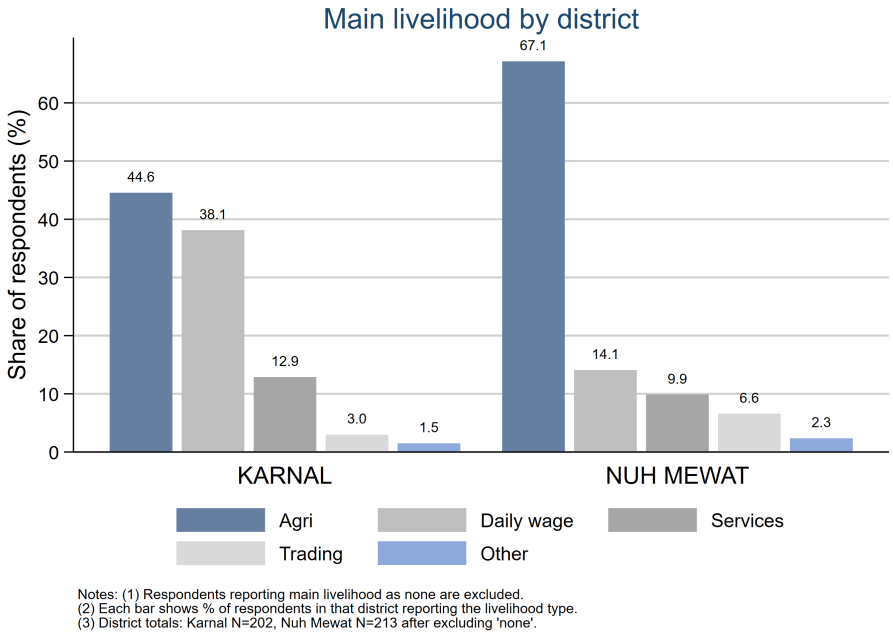
As shown in Figure 4.1 agriculture is the main income reported most frequently among respondents, followed by daily wage work. The district-level graph shows the same broad pattern, but with an important difference: Nuh Mewat is much more concentrated in agriculture, with (67%) of the respondents reporting it as their main livelihood, while Karnal shows a more diversified livelihood profile. Trading is the least reported livelihood in both districts, especially in Karnal.

Table 4.2. Enterprise Ownership and Scale

Indicator	Numerator	Denominator	Share
Owns at least one enterprise	296	511	57.9%
Enterprise owners with no paid employees	278	296	93.9%

Notes: Shares are calculated using the denominator shown in each row.

Figure 4.1. Distribution of main livelihood by district



More than half of respondents (58%) reported owning at least one enterprise. Among enterprise owners, (94%) reported operating without paid staff, indicating that most businesses are very small and are likely run by the woman herself or with the support of family members.

Income Distribution by District and Livelihood

Figure 4.2. Monthly enterprise income by district

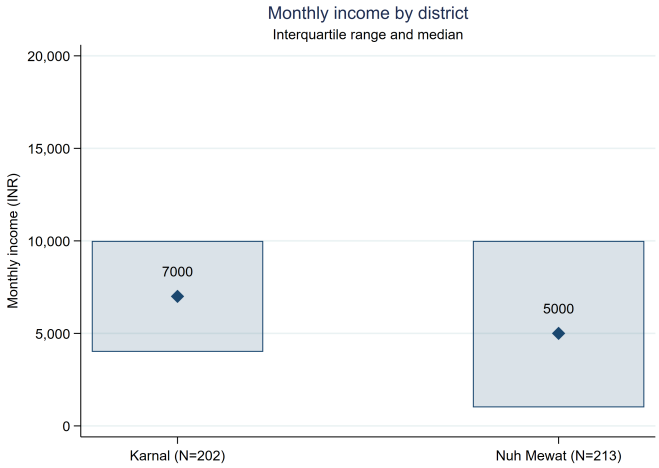
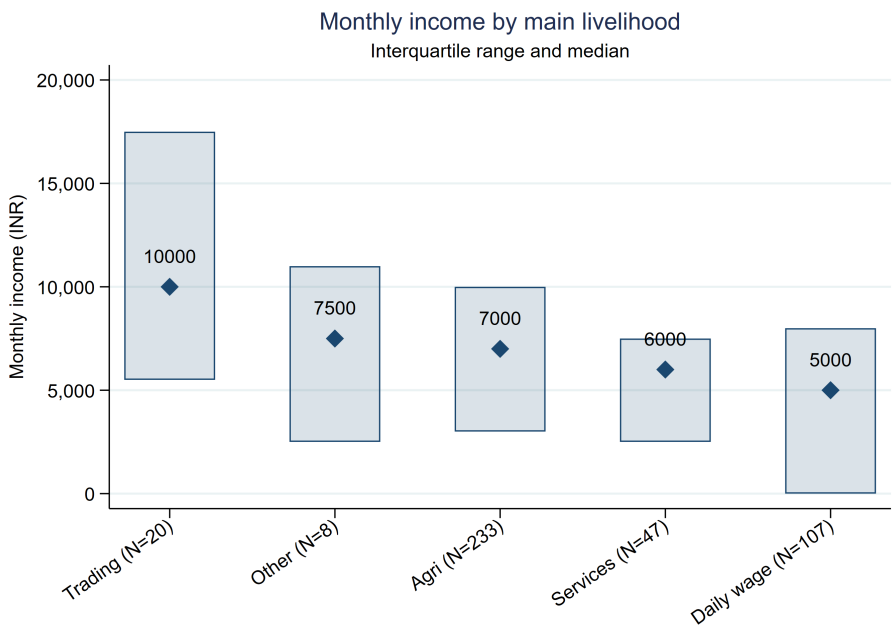


Figure 4.2 shows that the median monthly income of the business is higher in Karnal than in Nuh Mewat. Respondents in Karnal report a median income of INR 7,000, compared with INR 5,000

in Nuh Mewat. This difference is consistent with the more urban profile of Karnal and the more rural profile of Nuh Mewat.

The inter-quartile ranges also show that income varies widely within both districts. This suggests that the district-level context should be considered when interpreting enterprise income patterns, while also recognizing that there is substantial variation between women within each district.

Figure 4.3. Monthly enterprise income by main livelihood

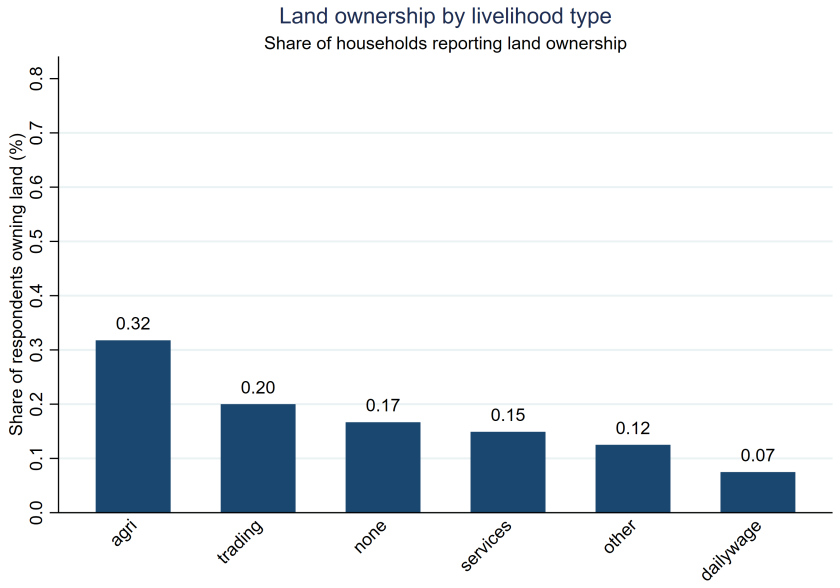


Although agriculture is the most common livelihood among the women surveyed, it does not generate the highest typical enterprise income. Trading shows the highest median income, followed by agriculture and services. Because mean monthly enterprise income is heavily influenced by a small number of high-value outliers, the median provides a more reliable basis for comparing income differences across livelihood groups.

Land Ownership

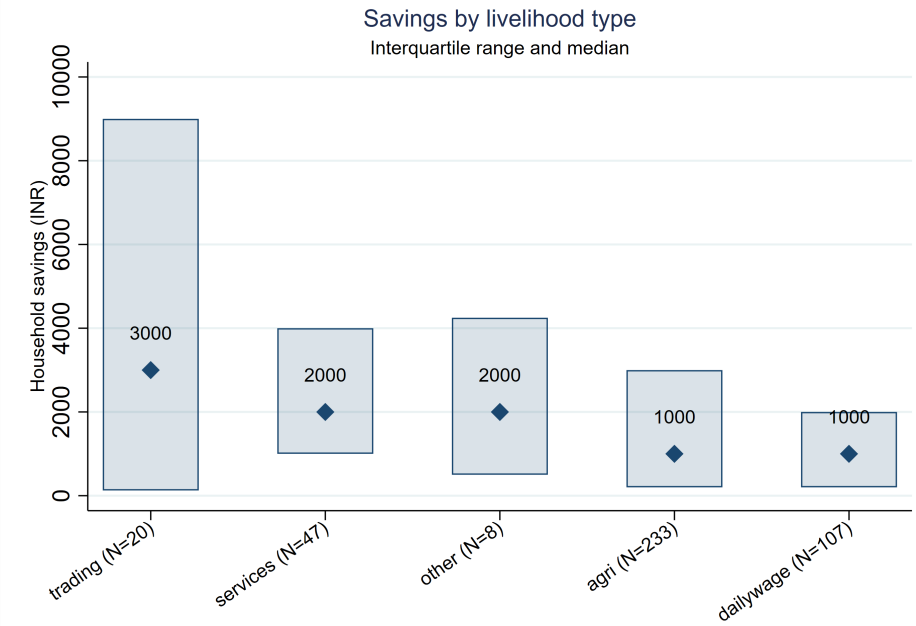
As shown in Figure 4.4, land ownership is limited among respondents: only (21.5%) reported owning land. Among those who own land, about (32%) are engaged in agriculture. Land ownership is especially low among respondents relying on daily wage work and services, at (7%) and (15%), respectively, indicating that most women in these groups do not own land.

Figure 4.4. Land ownership by main livelihood



Savings patterns

Figure 4.5. Savings amount by main livelihood

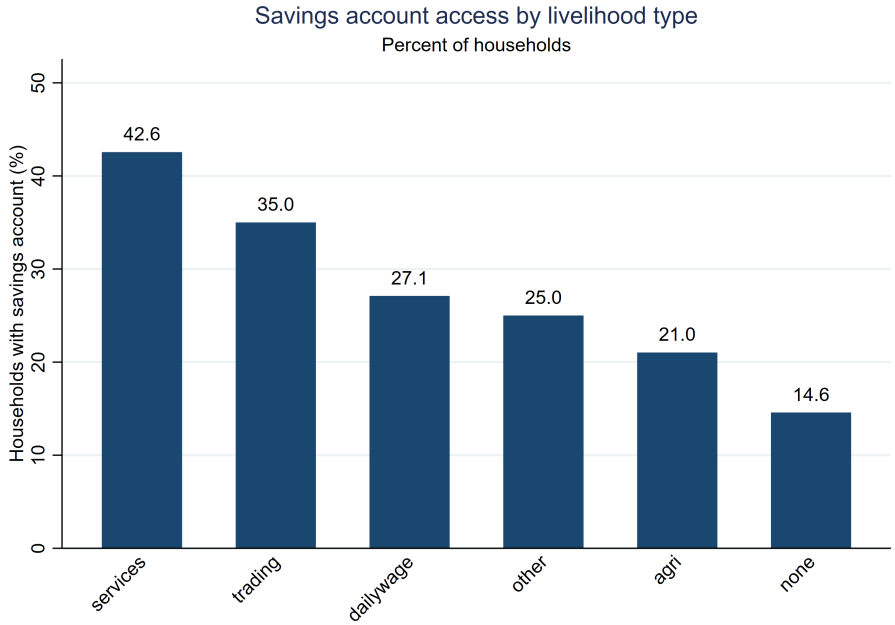


Most respondents reported saving at least some portion of their monthly household income, but the amount saved varies substantially. Median monthly savings are Rs. 1,000, while the mean is Rs. 2,083, suggesting that a smaller number of respondents with relatively high savings pull the average upward.

Savings patterns also differ by livelihood type. As shown Figure 4.5, respondents engaged in trading report the highest median savings, suggesting a relatively stronger saving position than other groups. By contrast, women in daily wage work and agriculture report the lowest monthly savings, pointing to tighter household financial margins in these livelihood categories.

We also examined access to formal banking services by livelihood type. The graph suggests that respondents working in services and trading are more likely to have access to savings accounts than those working in agriculture. This may reflect differences in financial inclusion, income regularity, or the continued use of informal saving methods among women in agriculture.

Figure 4.6. Savings accounts by main livelihood



Debt and Debt Payment

Only 30% of the respondents reported having debt. Among them, monthly debt repayments average INR 34,254, with substantial variation across respondents (SD = Rs. 80,104), indicating that repayment burdens differ widely within this group. The median repayment amount, however, is much lower at INR 5,000, suggesting that the average is driven upward by a small number of very large repayment amounts. Respondents' own contribution to debt repayment is also lower, with a median of INR 3,000, suggesting that repayment may often be shared within the household. Debt duration has a median of 10.5 months, although the unusually high maximum value suggests that this variable should be interpreted with caution.

Table 4.3. Debt: Numeric Descriptives

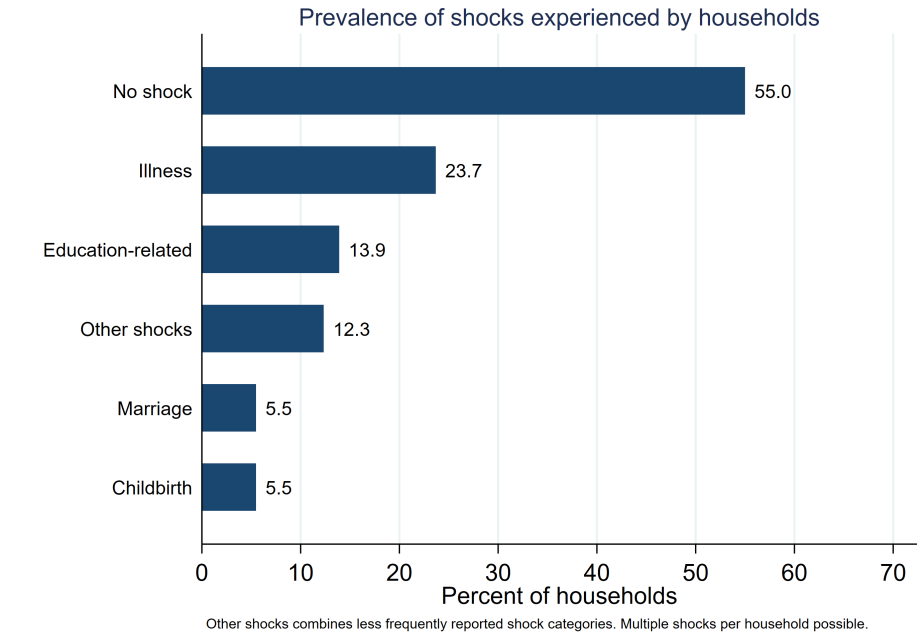
Variable	Mean	SD	Min	P25	P50	P75	P95	Max	N
Monthly debt payment	34,254	80,104	0	3,000	5,000	15,000	200,000	500,000	158
Contribution to debt payment	5,462	9,913	0	1,500	3,000	5,000	16,500	76,000	149
Debt duration (months)	820	5,717	0	6	10.5	18	120	50,000	158

Notes: Debt repayment values are reported in INR. Statistics are calculated among respondents with non-missing debt information. P25, P50, P75, and P95 refer to the 25th, 50th, 75th, and 95th percentiles, respectively.

Shocks

Just above half of the respondents reported experiencing no recent shock. Among those who did report a shock, illness was by far the most common, followed by education-related expenses and life-cycle events such as marriage and childbirth. Economic and asset-related shocks were reported less frequently, suggesting that household vulnerability in this sample is driven more by health and human-capital pressures than by labor-market or enterprise-related shocks.

Figure 4.7. Shocks respondents face



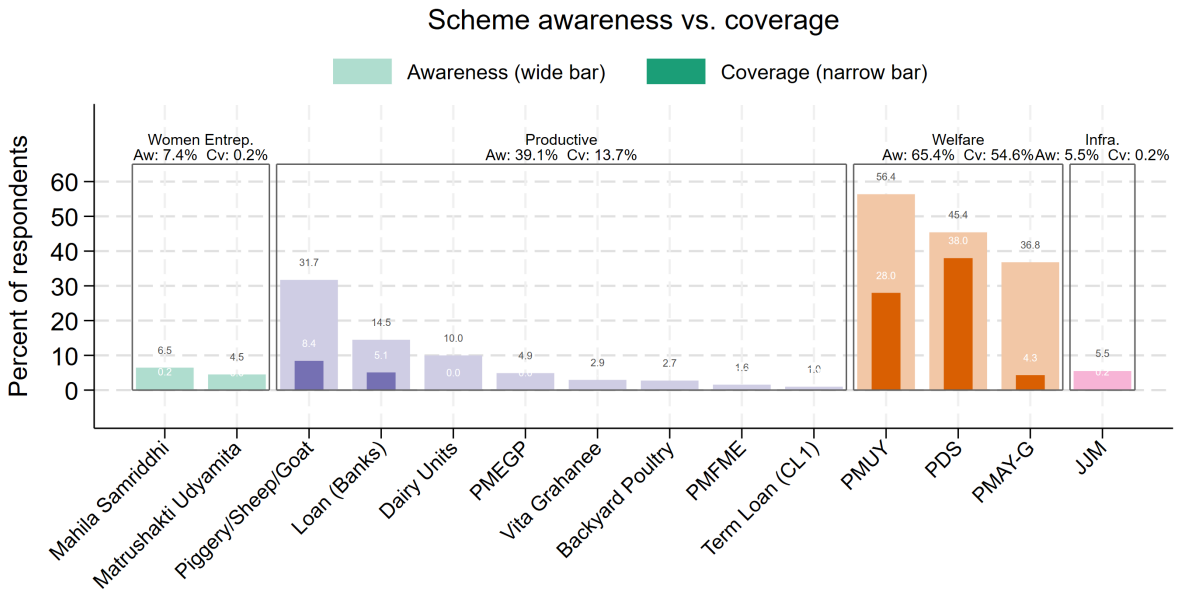
4.3 Scheme Access & Market Integration

Scheme Awareness and Uptake

Overall scheme awareness and scheme uptake are both very low. Comparing the access and coverage of different schemes, Women surveyed are more aware of social welfare schemes than of other

types of schemes, including entrepreneurship, livelihood or productivity-related schemes, and public infrastructure schemes. About two-thirds of respondents (65.4%) are aware of at least one welfare scheme, with PMUY (56.4%) and PDS (45.4%) being the most widely recognized. Awareness of productive or livelihood-related schemes is lower, at 39.1%, with the Piggery/Sheep/Goat scheme (31.7%) the most recognized within this category. Awareness of women entrepreneurship schemes is especially limited, at just 7.4%.

Figure 4.8. Gap between scheme awareness and scheme uptake



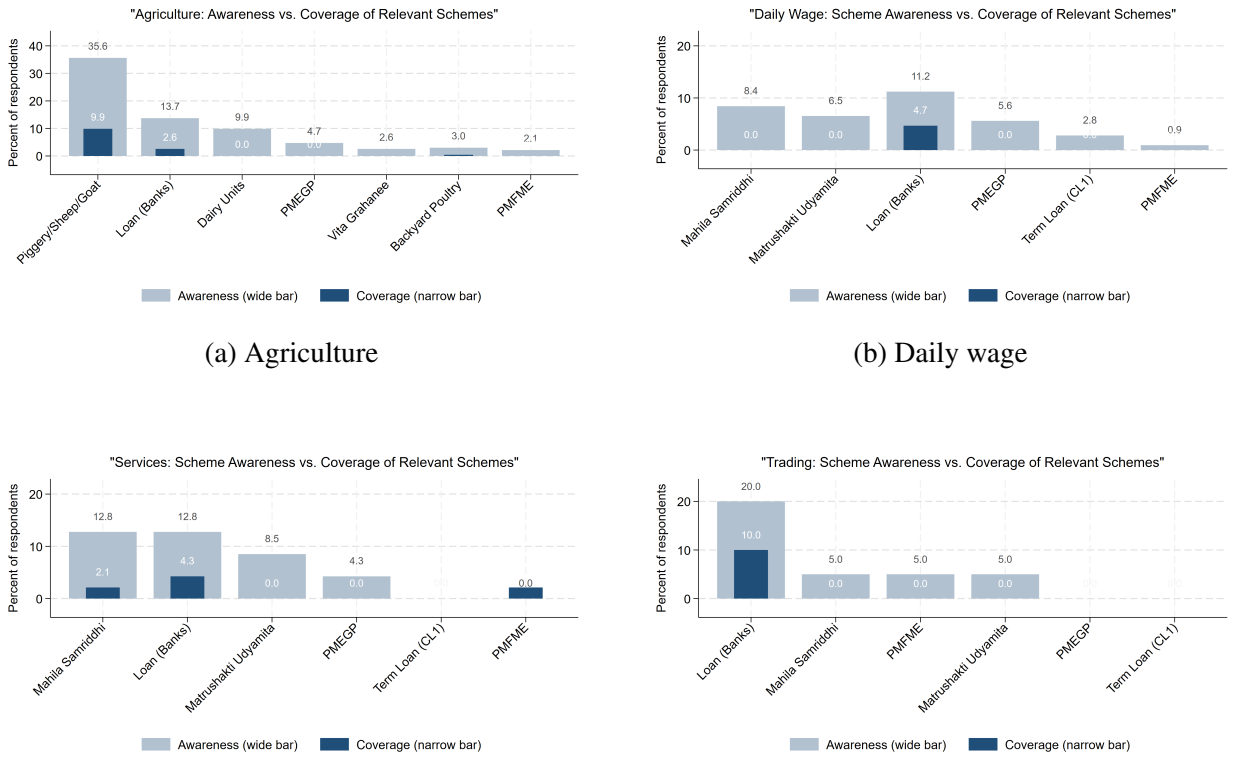
(1) Respondents could select multiple schemes simultaneously; percentages may sum to more than 100%.
(2) Light wide bar = awareness; dark narrow bar = coverage. Numbers above = awareness %; numbers inside = coverage %.
(3) Bars sorted by awareness-coverage gap within each category (largest gap leftmost).
(4) Category percentages count respondents reporting at least one scheme in the category.

Although awareness — especially of welfare schemes — is relatively high, actual uptake is noticeably lower. The table below highlights a clear gap between knowing about a scheme and benefiting from it. For example, while about two-thirds of respondents are aware of social welfare schemes, only around 55% have benefited from them. PMAY-G appears to have the lowest uptake among the better-known welfare schemes. Across the full set of schemes, public infrastructure and women entrepreneurship schemes show almost no uptake.

To better understand whether women are aware of and accessing schemes relevant to their livelihood activities, we examine scheme awareness and uptake by main livelihood type. Ideally, this analysis would use a direct eligibility variable indicating which respondents qualify for each scheme. Since the dataset does not include such a variable, we use main livelihood type as a proxy for likely scheme relevance. Based on the nature of each scheme, we classify selected schemes as relevant to agriculture, daily wage work, services, or trading. These categories should be interpreted as indicative rather than definitive, since some schemes may be relevant to more than one

livelihood group.

Figure 4.9. Scheme Awareness and Uptake by Livelihood Type



(a) Agriculture

(b) Daily wage

(c) Services

(d) Trading

Notes: Each panel shows awareness and uptake of livelihood-relevant schemes within the corresponding livelihood group. For each panel, the sample is restricted to women who selected that specific main livelihood. Respondents could select multiple schemes simultaneously; therefore, percentages may sum to more than 100%.

To keep the figure focused and readable, we exclude four general schemes for which women across all livelihood types may potentially be eligible:PDS (Public Distribution System, a subsidized food grain program), PMAY-G (Pradhan Mantri Awas Yojana–Gramin, a rural housing support program), PMUY (Pradhan Mantri Ujjwala Yojana, a clean cooking gas/LPG connection program), and JJM (Jal Jeevan Mission, a rural household tap water connection program).

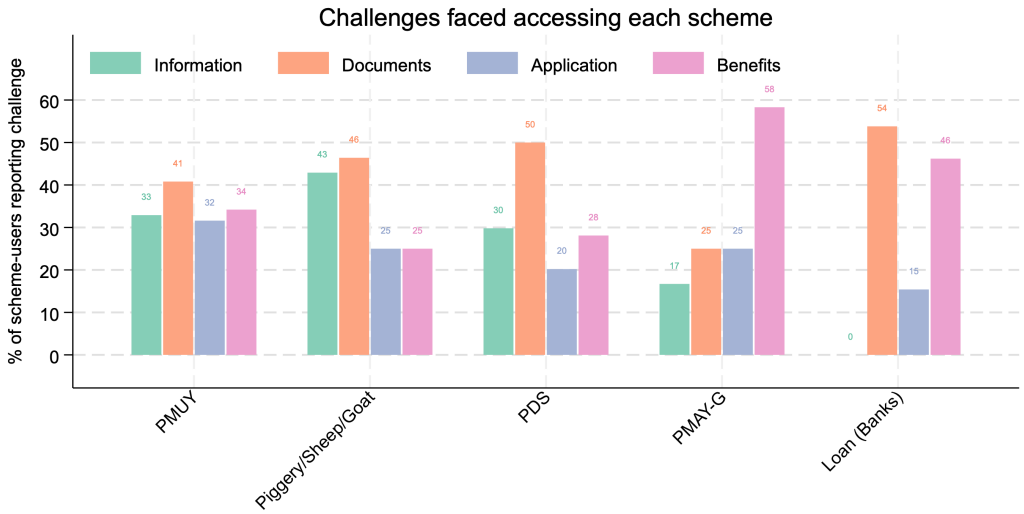
As shown in Figure 4.9, awareness and uptake of livelihood-relevant schemes remain low across all four livelihood groups. Among women in agriculture, awareness is highest for livestock-related schemes, especially Piggery/Sheep/Goat support, but uptake remains much lower than awareness. This suggests that even when women know about relevant productive schemes, conversion into actual coverage is limited. Among daily wage workers, services, and trading respondents, awareness

is generally concentrated around loan-related schemes, particularly bank loans, but uptake is again low or zero for several schemes. Overall, the figure shows a consistent gap between awareness and coverage, suggesting that information alone is not sufficient; women may also face barriers actually accessing those schemes.

Barriers to scheme access and uptake

Respondents face multiple barriers when trying to access schemes, which helps explain the low coverage observed. Difficulty obtaining the required documentation is the most consistent challenge across schemes, especially for Bank Loans (54%), PDS (50%), and the Piggery/Sheep/Goat scheme (46%). For PMAY-G, however, the main bottleneck appears to arise after application: 58% of respondents identified receiving the benefit itself as the biggest challenge, suggesting that applying may be less difficult than ultimately obtaining support. Overall, no single scheme appears to be free of access barriers, pointing to broader systemic constraints rather than isolated implementation problems.

Figure 4.10. Challenges in scheme access



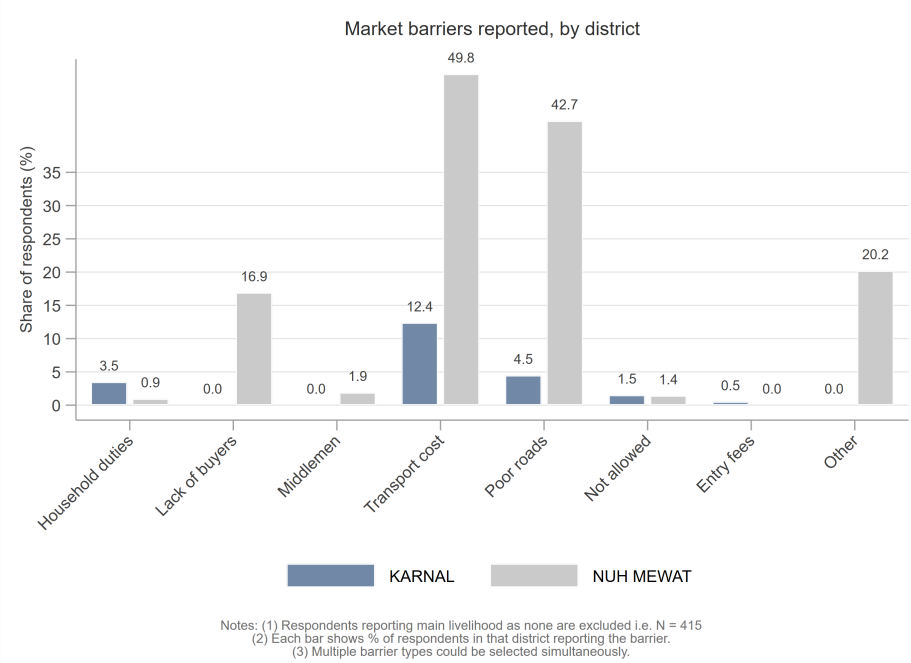
Notes: (1) Each bar shows % of scheme-users reporting that challenge type.
(2) Schemes with 5+ users only, sorted left to right by total challenge burden.
(3) Respondents reporting no challenges are excluded.
(4) Multiple challenge types could be selected simultaneously, so the percentages may therefore sum to more than 100% for each scheme.

Market linkage challenges and patterns

Among respondents who reported a livelihood activity, transportation cost is the most commonly cited barrier to market access (reported by 65% of respondents), followed by poor road conditions, reported by about half. Slightly more than half of respondents reported reaching the market on their own, while a substantial share reported relying on family members for support in accessing markets. This shows that women's market access is constrained less by lack of participation and

more by weak physical connectivity and limited independent mobility. Even when women are engaged in livelihoods, high transport costs, poor road conditions, and reliance on family support suggest that access to markets remains fragile, uneven, and strongly shaped by household and local infrastructure conditions.

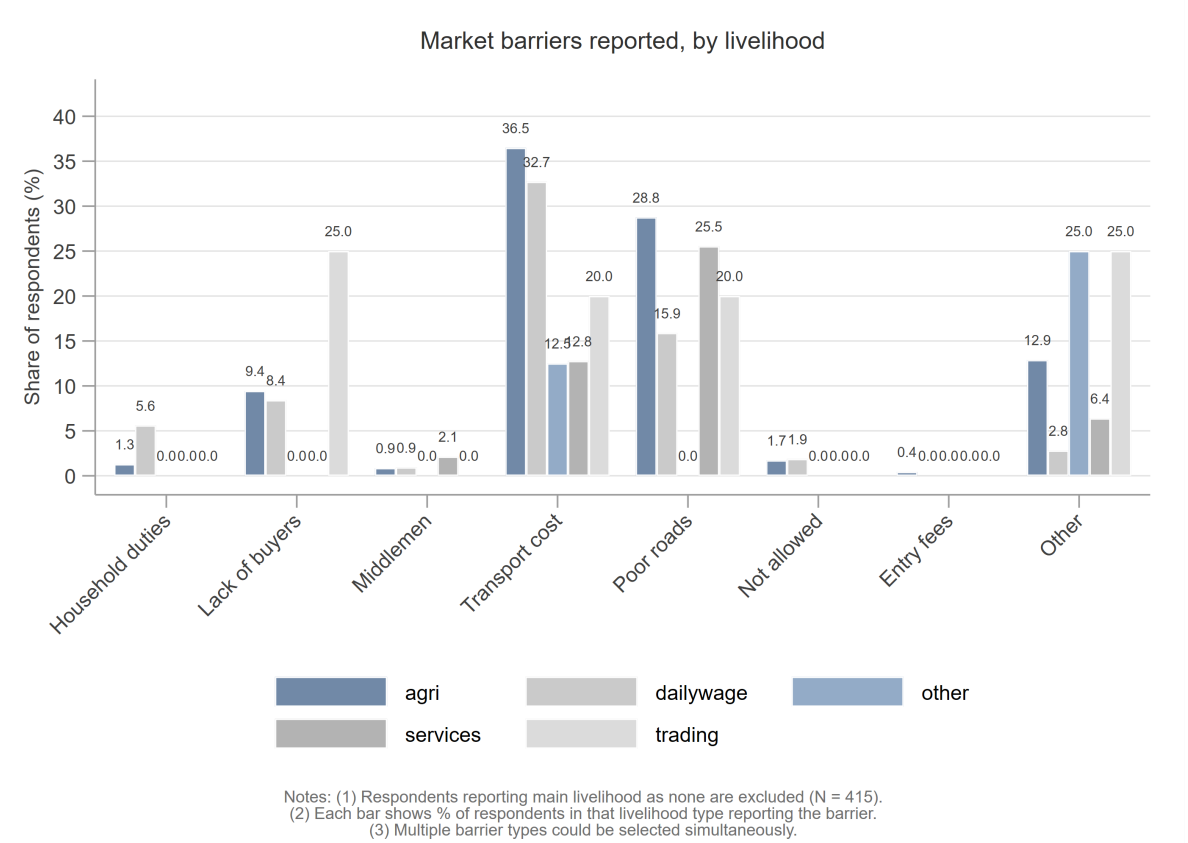
Figure 4.11. Challenges in accessing market by district



The data also show marked district-level differences in reported market barriers. As the graph in Figure 4.11 indicates, respondents in Nuh Mewat consistently report more barriers than those in Karnal. For example, transportation cost is identified as a major barrier by about half of respondents in Nuh Mewat, compared with only 12.4% in Karnal. A similarly large gap is seen for poor road conditions (42.7% in Nuh Mewat versus 4.6% in Karnal). In addition, no respondents in Karnal reported lack of buyers as a barrier, whereas nearly 17% of respondents in Nuh Mewat did so.

When market barriers are disaggregated by livelihood type, we can see the same overall pattern; transportation cost being the most frequently reported constraint, followed by poor roads and then lack of buyers. At the same time, some differences across livelihoods are visible. For example, (as shown in Figure 4.12) 25% of women in trading reported lack of buyers as a major barrier, compared with 9% of women in agriculture and 8% of women in daily wage work. Entry fees, being prevented from selling, and middlemen are among the least frequently reported barriers across all livelihood groups.

Figure 4.12. Challenges in accessing market by livelihood



Notes: (1) Respondents reporting main livelihood as none are excluded (N = 415).
(2) Each bar shows % of respondents in that livelihood type reporting the barrier.
(3) Multiple barrier types could be selected simultaneously.

4.4 Capabilities, SHG Support, & Women's Agency

Entrepreneurial capabilities and aspirations

The findings suggest that entrepreneurial confidence is relatively higher among respondents. These women are relatively more confident in core business operations than in more specialized entrepreneurial skills. Confidence is highest in running an enterprise, with a mean score of 2.24 out of 3; 48.3 percent report being very confident and another 36.8 percent confident. Confidence is also moderately strong in calculations and business relationships, where about four in ten respondents report being confident or very confident. By contrast, confidence is notably lower in marketing and especially in technology. Technology records the lowest mean score (1.52 out of 3), with only 18.4 percent feeling very confident and 20.5 percent reporting no confidence at all. Overall, this pattern suggests that while many women feel capable of managing day-to-day enterprise activities, they face greater constraints in areas that are often critical for business growth, diversification, and market expansion.

Respondents report high levels of satisfaction with their current work, but somewhat lower confidence about the future. Work satisfaction is strong, with a mean score of 2.22 out of 3, and more

than 93 percent describing themselves as satisfied or very satisfied. At the same time, optimism about future work is more mixed. Although three-quarters of respondents remain optimistic or very optimistic, the mean score for work optimism is lower at 1.95 out of 3, and about one-quarter report feeling worried or very worried. Taken together, these findings suggest that women generally value and take pride in their current livelihood activities, but many remain uncertain about future opportunities, reflecting the constraints and risks surrounding enterprise development.

Table 4.4. Self-Reported Confidence Across Business Domains

Domain	Mean	SD	Not Conf. (%)	Somewhat (%)	Conf. (%)	Very Conf. (%)	N
Running an enterprise	2.24	0.92	9.2	5.7	36.8	48.3	511
Calculations	2.02	1.01	12.3	12.5	35.6	39.5	511
Business relationships	2.01	1.04	14.1	11.2	34.4	40.3	511
Marketing	1.90	1.05	13.5	19.6	30.3	36.6	511
Technology	1.52	1.02	20.5	25.2	35.8	18.4	511

Notes: Confidence is coded on a 0–3 scale: 0 = not confident, 1 = somewhat confident, 2 = confident, and 3 = very confident. Percentage columns report the share of respondents in each response category and sum to 100 within each row.

Table 4.5. Work Satisfaction and Optimism

Variable	Mean	SD	Category 0 (%)	Category 1 (%)	Category 2 (%)	Category 3 (%)	N
Work satisfaction	2.22	0.64	2.5	4.3	61.8	31.3	511
Work optimism	1.95	0.81	5.3	19.4	50.1	25.2	511

Notes: Both variables are coded from 0 to 3, where higher values indicate more positive responses. For satisfaction: 0 = very unsatisfied, 1 = unsatisfied, 2 = satisfied, and 3 = very satisfied. For optimism: 0 = very worried, 1 = worried, 2 = optimistic, and 3 = very optimistic. Percentages sum to 100 within each row.

SHG Support

The findings in Table 4.6 suggest that SHGs play an important supportive role in women's enterprise activities, although the intensity of support varies by function. Support for enterprise activities appears relatively strong: 60.5 percent of respondents report that SHGs often help with enterprise activities, while an additional 22.3 percent say they sometimes receive such support. Only small shares report rarely (7.6 percent) or never (9.6 percent) receiving this kind of assistance. This indicates that, for most respondents, SHGs serve as a regular source of practical support for enterprise-related work.

The pattern is somewhat less consistent for market information sharing. While 42.6 percent of

respondents report that SHGs often share market information and another 23.0 percent say this happens sometimes, a sizable share report limited access to such support, with 16.1 percent saying rarely and 18.3 percent saying never. This suggests that SHGs are helpful in connecting women to market information, but this function is not as uniformly experienced as enterprise support. By contrast, support in navigating government schemes appears especially strong: 82 percent of respondents report receiving SHG help with scheme applications. Taken together, these findings highlight SHGs as important intermediaries that not only support enterprise activities, but also help women connect to markets and access government programs.

Table 4.6. SHG Support on Enterprise Running

Item	Never (%)	Rarely (%)	Sometimes (%)	Often (%)	N
SHG helps with enterprise activities	9.6	7.6	22.3	60.5	511
SHG shares market information	18.3	16.1	23.0	42.6	378

Notes: Percentages report the share of respondents in each response category and sum to 100 within each row. N differs across rows because the market information item was available for a smaller number of respondents.

Women's Agency, Community Standing, and Influence

Women's agency appears to vary by the type of decision being considered. As shown in Table 4.7, women report greater authority over daily household decisions than over major household decisions. While 65.2% of respondents report that they themselves make daily household decisions, only 26.8% report being the main decision-maker for major household decisions. For major decisions, spouses remain the most frequently reported decision-maker, at 56.2%. This suggests that women may exercise more control over routine household management, while larger financial or strategic decisions remain more male-dominated.

Table 4.8 shows a more positive pattern when women are asked about their level of involvement in specific household and family decisions. Across domains such as children's education, children's health, family food, own health, and childbearing, most respondents report high or very high involvement. Involvement is also high for decisions related to women's own earnings, with 88.5% reporting either high or very high involvement. This indicates that even when women are not always the final decision-maker, they are often actively involved in household decision processes.

Community standing and influence are more mixed. As shown in Table 4.9, 65.2% of respondents report high or very high community status, while 54.1% report high or very high community influence. However, a sizeable share still reports low or very low influence, suggesting that women's visibility and voice in the community remain uneven. The finding that 62% of respondents re-

port that others have sought their advice suggests that many women play an advisory or informal leadership role, even if their formal community influence is limited.

Table 4.7. Household Decision-Maker by Domain

Domain	Self (%)	Spouse (%)	Parents (%)	In-laws (%)	Children (%)	N
Major household decisions	26.8	56.2	2.5	11.9	2.5	511
Daily household decisions	65.2	23.5	2.7	6.3	2.3	511
Enterprise decisions	32.3	54.9	2.4	8.6	1.8	337

Notes: Entries report the percentage of respondents indicating each decision-maker. Percentages sum to 100 within each row.

Table 4.8. Decision-Making Involvement Within the Household

Decision domain	Mean	SD	Very Low (%)	Low (%)	High (%)	Very High (%)	N
Own earnings	2.34	0.71	1.2	10.4	41.7	46.8	511
Children's education	2.50	0.76	2.7	7.8	25.8	63.6	511
Children's health	2.59	0.68	2.5	3.1	27.0	67.3	511
Family food	2.59	0.64	1.6	3.9	28.0	66.5	511
Own health	2.40	0.79	2.0	12.9	28.4	56.8	511
Childbearing	2.63	0.63	1.6	3.5	25.0	69.9	511

Notes: Items are coded from 0 = very low involvement to 3 = very high involvement. Percentage columns report the share of respondents in each response category and sum to 100 within each row.

Table 4.9. Community Standing and Influence

Variable	Mean	SD	Very Low (%)	Low (%)	High (%)	Very High (%)	N
Community status	1.77	0.94	11.5	23.3	41.7	23.5	511
Community influence	1.49	1.08	25.4	20.5	33.9	20.2	511

Notes: Community status and community influence are coded from 0 = very low to 3 = very high. Percentages sum to 100 within each row.

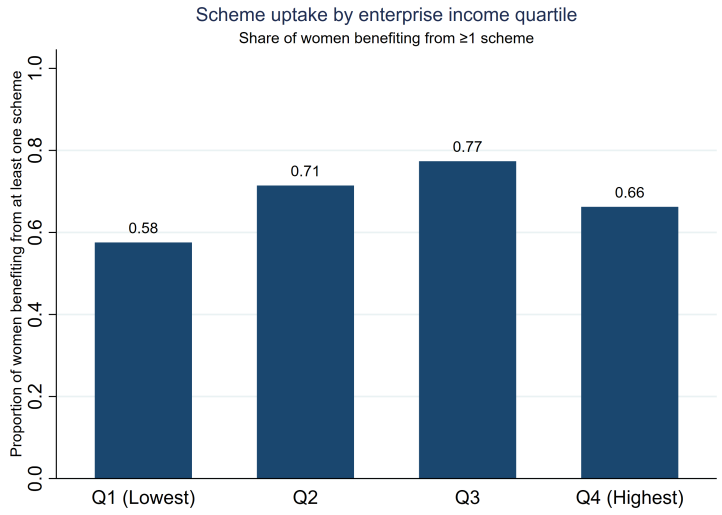
5. Baseline Analysis Part 2: Differences Across Enterprise Income Groups

This section examines how scheme access, market connectivity, women's entrepreneurial capabilities, agency, and SHG support vary across enterprise income groups at baseline. We divide respondents into four income groups based on enterprise income quartiles. The quartiles are defined as follows: INR 0–2,000 for the first quartile (Q1), INR 2,500–6,000 for the second quartile (Q2), INR 6,100–10,000 for the third quartile (Q3), and INR 12,000–77,000 for the fourth quartile (Q4).

As explained in the data section, we constructed four indices to capture key multidimensional aspects of women's economic activity: entrepreneurial capabilities, agency, SHG support, and market access. We use these measures to examine how these dimensions vary across enterprise income groups.

5.1 Scheme Access by Income

Figure 5.1. Scheme uptake by enterprise income quartile



Note: The figure shows the share of women reporting benefits from at least one scheme across enterprise income quartiles.

Scheme uptake increases with income, but the relationship is not strictly linear. Figure 5.1 shows that the proportion of women benefiting from at least one scheme rises from the lowest to the middle-income groups, before flattening or declining slightly among the highest income quartile.

This pattern is reinforced when examining the intensity of scheme uptake. As shown in Appendix Figure B.1, the average number of schemes accessed increases from Q1 to Q3 but shows limited gains thereafter. Together, these findings suggest that while scheme access improves with income, higher-income households do not necessarily benefit from a broader set of schemes.

5.2 Capabilities, SHG Support, and Market Linkages

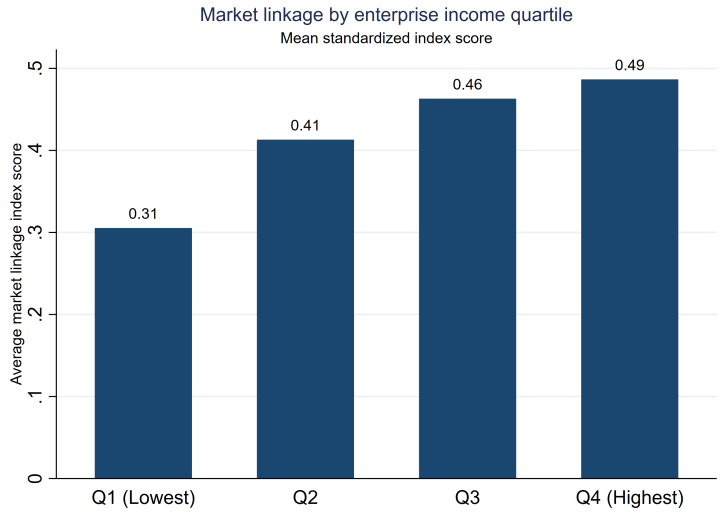
Clear gradients emerge in capabilities and market integration across income groups.

Figure 5.2 shows that market linkage increases steadily with income, indicating that higher-income enterprises are more strongly connected to buyers, suppliers, and markets. Figure 5.3 shows that women's agency also improves with income, but peaks in the middle-income group (Q3) before declining slightly at the top.

Supporting evidence from Appendix Figures B.2 and B.3 shows similar patterns. Entrepreneurial confidence rises consistently across income quartiles, while SHG functionality improves from Q1 to Q3, with weaker gains at the highest income level.

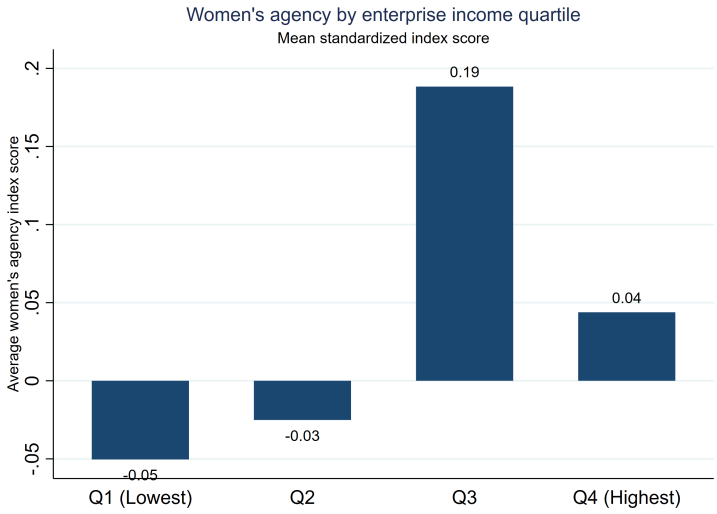
Taken together, these patterns suggest that middle-income households appear to benefit most from SHG engagement, while richer women (in Q4) benefit slightly lesser. This might be due to some data noise or might stem from realities on the ground such as richer women having access to other opportunities and help system. This indicates that SHGs may be particularly effective in supporting households transitioning out of low-income conditions, rather than those already well-established.

Figure 5.2. Market linkage by enterprise income quartile



Note: The figure shows the mean standardized market linkage index score across enterprise income quartiles.

Figure 5.3. Women's agency by enterprise income quartile



Note: The figure shows the mean standardized women's agency index score across enterprise income quartiles.

5.3 Summary of Key Baseline Findings

Women are economically active, but mainly in small, vulnerable livelihoods. Agriculture is the dominant livelihood, especially in Nuh Mewat, while Karnal is more diversified. Although many women own enterprises, most operate at a very small scale without paid workers. Financial security remains limited: land ownership is low, savings are modest, and shocks are driven mainly by illness and other household pressures rather than business losses.

Social welfare schemes are the most widely known and used, while entrepreneurship and productive schemes show very low coverage. Documentation problems, benefit delays, high transport costs, and poor roads all act as major barriers, especially in Nuh Mewat. SHGs play an important role in supporting enterprise activities and helping women apply for schemes.

Across income groups, market linkages and entrepreneurial confidence generally improve as income rises, while women's agency and SHG support appear to peak in the middle-income groups rather than at the top. The findings provide important context for interpreting baseline differences and motivate the analytical approach adopted in subsequent sections

6. Discussion

6.1 Synthesis of Key Findings at Baseline

The baseline findings show that women in the sample are economically active, but their livelihood activities remain small-scale, vulnerable, and unevenly connected to markets and institutional support. More than half of respondents report owning an enterprise, yet most enterprise owners operate without paid workers, suggesting that these businesses are largely self-operated or household-supported. This finding is important for interpreting the Lakhpati Didi initiative: increasing scheme access may be useful, but it may not be sufficient to generate sustained income growth unless women are also able to overcome constraints related to market access, mobility, business capabilities, and household resources.

The findings also reveal that economic vulnerability is multidimensional. Many women operate in low-return livelihood activities, land ownership is limited, savings remain modest, and shocks are driven mainly by illness and other household pressures. These conditions suggest that women's enterprises are embedded in financially constrained households with limited buffers against risk. As a result, even when women are eligible for schemes, their ability to apply for, receive, and productively use benefits may vary considerably

Heterogeneity across Districts and Livelihood Types

A central insight from the baseline is the degree of heterogeneity across districts, livelihoods, and income groups. Nuh Mewat is more concentrated in agriculture and faces stronger reported market barriers, including transport costs, poor roads, and lack of buyers. Karnal, by contrast, has a more diversified livelihood profile and appears to face fewer physical market-access constraints. These differences suggest that the same intervention may operate differently across local contexts. In areas where infrastructure and market access are binding constraints, information and application support may need to be complemented by stronger linkages to buyers, input suppliers, transport solutions, or local market platforms.

These access constraints may also affect women's ability to complete scheme applications. Since the intervention relies partly on women applying for government schemes through MENA camps or government offices, distance, transportation costs, poor road conditions, and mobility constraints may limit participation even when women are aware of schemes and interested in applying. This suggests that implementation should pay close attention not only to information gaps, but also to

the physical accessibility of application sites.

Livelihood type also shapes the opportunity structure facing women. Agriculture is the most common livelihood, but trading shows the highest typical enterprise income. This suggests that the pathway to becoming a "Lakhpati Didi" may differ across livelihood groups. For some women, the key challenge may be improving productivity within existing activities; for others, it may involve diversification into higher-return activities or better access to markets and finance.

The income-quartile analysis further shows that higher income is generally associated with stronger market linkages and entrepreneurial confidence, but not all empowerment-related indicators rise steadily with income. Women's agency and SHG support appear strongest among middle-income groups, suggesting that women with some existing economic base may be better positioned to benefit from institutional support. The lowest-income women may require more intensive facilitation because they face overlapping constraints in market access, confidence, agency, and scheme uptake.

Role of SHGs

The baseline confirms the importance of SHGs as institutional intermediaries. Respondents report substantial SHG support for enterprise activities and scheme applications, suggesting that SHGs can play a meaningful role in helping women navigate administrative processes and access public programs. This supports the intervention's reliance on SHG networks as a delivery platform.

At the same time, the findings suggest that SHGs may be stronger as facilitation platforms than as engines of livelihood transformation. Support for scheme applications appears strong, but market information sharing is less consistent. This matters because the ultimate objective of the Lakhpati Didi initiative is not only to improve scheme uptake, but to support income growth. If SHGs help women access benefits but do not consistently connect them to markets, technology, buyers, or business development support, the effect on enterprise income may remain limited. Strengthening the market-facing role of SHGs may therefore be important for translating access into economic gains.

Future survey rounds should also measure variation in SHG maturity and functioning, including how long the SHG has existed, how long respondents have been members, how leadership roles are defined, and what presidents, treasurers, and secretaries actually do in practice. This matters because more established SHGs may be better able to support scheme applications, market linkages, and enterprise growth, while newer or less organized SHGs may need additional strengthening for the intervention to work effectively.

Pre-Intervention Economic Landscape

The baseline findings suggest that the intervention is well aligned with several observed constraints. Low uptake of productive and entrepreneurship-related schemes, combined with documentation barriers and difficulties receiving benefits, indicates a clear need for application support, improved information flows, field-staff training, tracking systems, and grievance redressal. These are core components of the Indus Action intervention.

However, the findings also suggest that increasing awareness alone is unlikely to be enough. In many cases, the problem appears to be the conversion of awareness into actual benefit receipt and use of those schemes. Therefore, implementation should focus not only on informing women about available schemes, but also on helping them complete documentation, follow up on applications, resolve bottlenecks, and connect benefits to livelihood needs. Program monitoring should track the full pathway from awareness to application, approval, benefit receipt, and use.

The findings also point to the importance of differentiated implementation. Women in different districts and livelihood groups face different barriers, so a uniform approach may not be equally effective for all participants. Nuh Mewat may require greater attention to transport and market-access constraints, while trading and service-oriented livelihoods may require stronger support around finance, business skills, and market expansion. Similarly, the poorest women may need more hands-on support than women who are already better connected to SHGs and markets.

6.2 Contribution of Baseline Findings

The baseline makes an important contribution to the future evaluation of the Lakhpati Didi initiative. First, it establishes the pre-intervention conditions of the target population, allowing future rounds of data collection to assess whether scheme access, income, market linkages, agency, and SHG support improve over time. Second, it highlights important baseline heterogeneity that should be accounted for in the evaluation. Average treatment effects may conceal meaningful differences across districts, livelihood types, income groups, and levels of SHG engagement.

Third, the baseline identifies measurement challenges that should inform future survey design. In particular, discrepancies between self-reported and calculated profit suggest that enterprise income and profit should be interpreted carefully. Future rounds may benefit from more detailed questions on revenues, costs, seasonality, unpaid family labor, and the distinction between household and enterprise income. This is especially important because the Lakhpati Didi initiative is ultimately tied to a household income target.

Overall, the baseline suggests that the Lakhpati Didi intervention addresses a real access gap, but its impact on income will depend on whether improved scheme uptake can be translated into meaningful livelihood gains. The findings therefore support a broader interpretation of program success: beyond measuring whether women receive more schemes, the evaluation should assess whether those schemes improve women's productive capacity, market access, confidence, agency, and resilience.

6.3 Key Recommendations Moving Forward

Enhance Survey Protocols

Before midline data collection, we recommend that IA convenes the contracted survey firm to review and address the specific data measurement challenges incurred at baseline and avoid carrying them forward to subsequent survey rounds. This conversation should cover the protocols and best practices for three areas.

First, all SurveyCTO skip logic and hard-coded constraints should be reviewed to ensure that logical inconsistencies are addressed before midline deployment. This includes identifying questions where routing errors caused missing or invalid responses at baseline.

Second, enumerator training should be revised to address specific failure points identified at baseline — particularly around income probing, unit recording, and skip logic compliance — with an emphasis on clear, standardized interpretation of questions.

Third, we suggest all changes to the survey instrument be piloted before full rollout. A small pilot of approximately 20–30 respondents should be conducted using the revised instrument to verify skip logic, survey timing, and enumerator comprehension.

Refine Survey Questions

Several specific question adjustments are recommended based on issues identified at baseline. First and foremost, to improve income and profit measurement, we recommend adopting the World Bank triangulation approach, collecting three parallel estimates: (1) a monthly estimate of total income; (2) a weekly recall estimate calculated as the average of the best and worst week multiplied by 4.25; and (3) a daily recall estimate based on last day's sales, best and worst day's sales in the last month, multiplied by the number of trading days per week and 4.25 weeks per month (Anderson et al., 2019; de Mel et al., 2009; see Appendix C for methodological details). This approach can reduce reliance on any single estimate and help correct for recall bias inherent in income self-reporting.

Second, all integer questions should be asked in standardized units — such as rupees in thousands or kilograms — and units should be consistent across all related questions. This is especially important for questions on income, expenditure, savings, debt payments, client counts, and time use, where inconsistent reporting units can create measurement error and make responses difficult to compare across respondents.

Third, any question offering an "other" response option should be followed by a "specify other" open-text field to preserve response granularity. Without this, "other" responses cannot be meaningfully categorized or analyzed.

Fourth, to reduce recall bias and social desirability effects in measuring intra-household dynamics, questions currently framed as "who has more say" should be reframed as "who in your household generally has the last word in [decision domain]." This framing is more concrete and behaviorally grounded, making it less susceptible to aspirational or normative responses.

Finally, post-intervention survey rounds should incorporate questions to track actual intervention delivery — including receipt of IVRS/SMS messages, attendance at scheme application camps, and CSC support — which can then be cross-referenced against IA's internal delivery records to identify implementation gaps in real time. This is essential for distinguishing between an intervention that was delivered but did not work versus one that was not adequately taken up.

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Appendix A. Baseline Survey Instrument

Module A: Demographics

1. What is your name?
2. Are you in the Lakhpati Didi scheme?
3. What is your age?
4. What category do you belong to?
5. What is your phone number where we can contact you?
6. Do you have an alternative phone number where we can contact you?
7. What is your current marital status?
8. What is your education level?
9. How many members in your household?
10. How many earning members in your household?
11. Which ration card(s) does your household have?

Module B: Scheme Access & Entitlements

1. Which of the following schemes are you aware of?
2. Have you ever got any message on the mobile call/SMS/recording regarding the schemes you are eligible for, from the government or an NGO?
3. Has a camp been organized regarding awareness or application of schemes, by the Government or an NGO?
4. Which of the following schemes did you benefit from?
5. For each scheme accessed: How much time did it take for you to get benefits of this scheme?

(in days)

6. For each scheme accessed: What challenges did you face in accessing this scheme?
7. Did a government official assist you in availing benefits?
8. How much additional money on top of the scheme benefit did you have to invest to set up the enterprise?

Module C: Livelihood and Enterprise

1. What is your main livelihood activity?
2. What is your secondary livelihood activity?
3. How many enterprises do you own or manage?
4. How many years have you worked in these enterprises?
5. What is your business location?
6. Did you receive any subsidy while setting up the business? (not including loans)
7. If yes, how much subsidy did you receive?

Module D: Market Linkages & Supply Chains

1. Where do you sell your products/services?
2. How many buyers and clients did you have in the last month?
3. What is the maximum amount of buyers and clients you have had in a single month?
4. What is the minimum amount of buyers and clients you have had in a single month?
5. What is the distance to main market (km)?
6. What are the difficulties in reaching the market?
7. Who helps you reach markets?
8. Do you have any contracts/supply agreements?

Module E: Income Outcomes

1. Have you ever been unable to sell your products?
2. What is the average monthly income you earn from enterprise?
3. What is the maximum monthly income you earn from enterprise?
4. What is the minimum monthly income you earn from enterprise?
5. Is this enterprise income predictable every month?
6. How many people do you employ?
7. What is the total amount paid monthly to all the staff in the business?
8. What are your average monthly business costs for: raw materials, electricity, water, rent, maintenance, transport & logistics?
9. How much profit does your business make on average per month?
10. Have you faced any major shocks in the last 3 months?
11. How did recent shocks affect your enterprise income?
12. How did you deal with these shocks?
13. What is your average total household income per month?
14. Is this household income predictable every month?
15. How much of your household income do you save every month?
16. How do you save money?
17. What is the regular monthly expenditure on the household?
18. What is your monthly consumption of: rice, cereals, pulses, vegetables, milk, firewood/chips/cow dung?
19. What is your monthly expenditure on: clothing items and accessories, electronic items and appliances, non-electronic items and appliances?

20. Do you own any land?
21. How much land do you own? (in bigha)
22. What is your home ownership status?
23. Is this house in your name?
24. Does your household have any debt?
25. If yes: What is the amount to be paid back each month?
26. If yes: What is your contribution to this amount each month?
27. If yes: How many months until you can pay back in full?

Module F: Entrepreneurial Capabilities & Aspirations

1. Rate your confidence to run an enterprise
2. Which of these enterprises do you feel capable of managing?
3. Rate your confidence to handle numeric calculations
4. Rate your confidence in managing your relationships with employees/business partners
5. Rate your confidence in marketing your business to the relevant people
6. Rate your confidence in using the latest technology
7. I feel that I am _____ with my work (satisfaction scale)
8. I feel _____ about the future of my work (outlook scale)

Module G: SHG Participation

1. What is your role in the SHG?
2. Frequency of SHG meetings attended/month
3. Does your SHG help with enterprise activities?

4. Has your SHG supported you in scheme applications?
5. Do you share inputs/market info with SHG members?

Module H: Household Dynamics & Decision Making

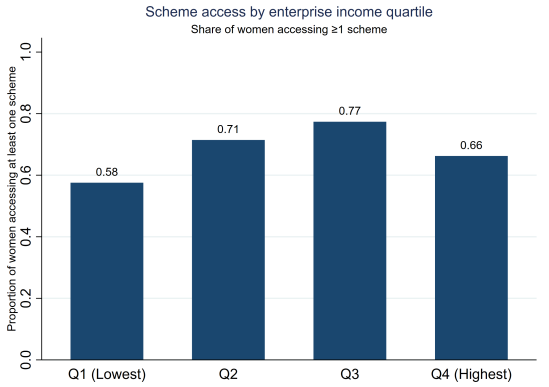
1. Who has more say on major household spending decisions?
2. Who has more say on day-to-day household spending decisions?
3. How much say do you have in decisions about: work, children's education, children's health, food for family, your own health, childbearing?
4. Who decides on investments in the enterprise?
5. How would you describe your household's ability to handle shocks?
6. How many hours per day do you spend on work around the house?

Module I: Community Standing & Social Position

1. How do you perceive your status in the community?
2. How often are you invited to village meetings or events?
3. How much influence do you have in community decisions?
4. Have others sought your advice on their livelihood or schemes?
5. Can we call you in the future for a short follow-up survey?

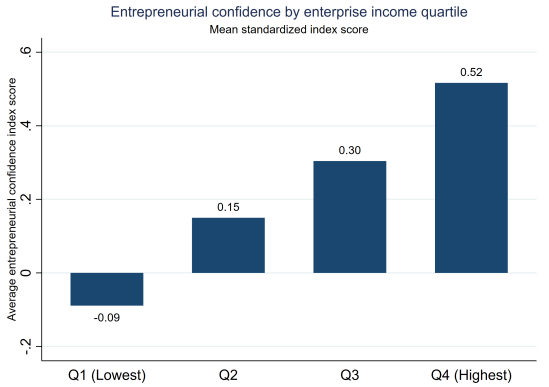
Appendix B. Figures of Baseline Individual Characteristics by Livelihood and Income

Figure B.1. Scheme uptake intensity by enterprise income quartile



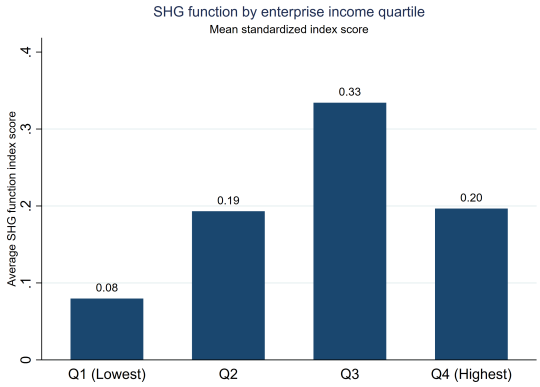
Note: The figure shows the average number of schemes benefited from per woman across enterprise income quartiles.

Figure B.2. Entrepreneurial confidence by enterprise income quartile



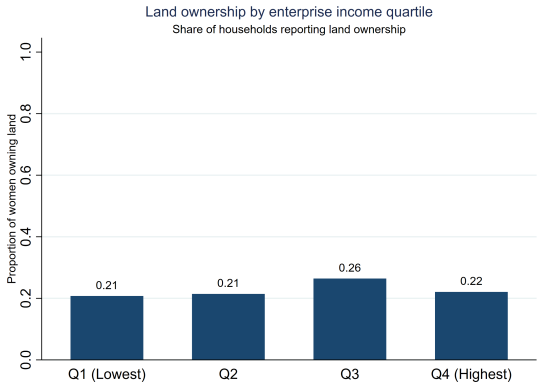
Note: The figure shows the mean standardized entrepreneurial confidence index score across enterprise income quartiles.

Figure B.3. SHG function by enterprise income quartile



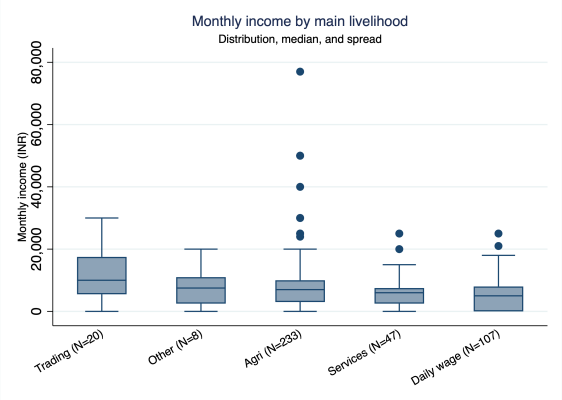
Note: The figure shows the mean standardized SHG function index score across enterprise income quartiles.

Figure B.4. Land ownership by enterprise income quartile



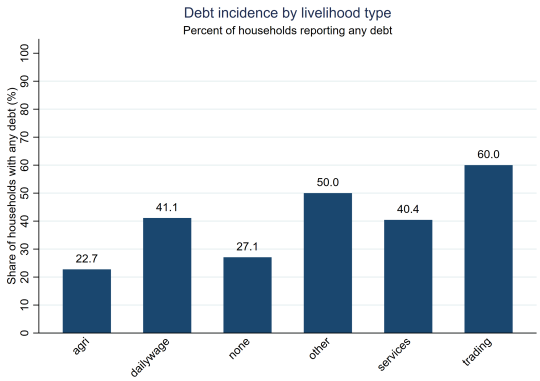
Note: The figure shows the proportion of women reporting land ownership across enterprise income quartiles.

Figure B.5. Monthly enterprise income by main livelihood



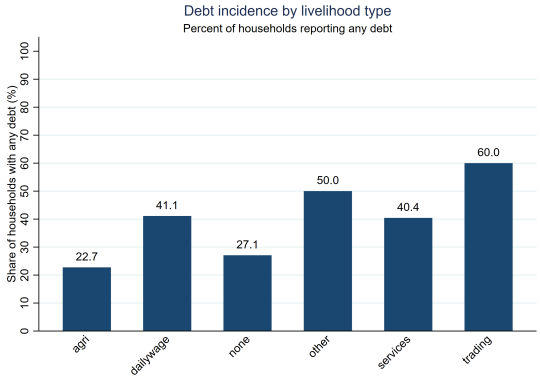
Note: The figure shows the distribution of monthly enterprise income across livelihood categories using medians and interquartile ranges.

Figure B.6. Debt incidence by livelihood type



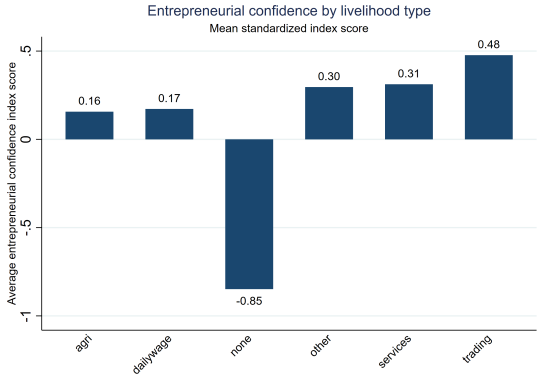
Note: The figure shows the share of respondents reporting debt across livelihood types.

Figure B.7. Debt incidence by enterprise income quartile



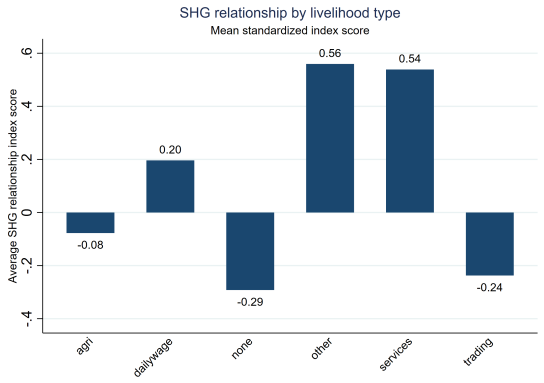
Note: The figure shows the share of respondents reporting debt across enterprise income quartiles.

Figure B.8. Entrepreneurial confidence by livelihood type



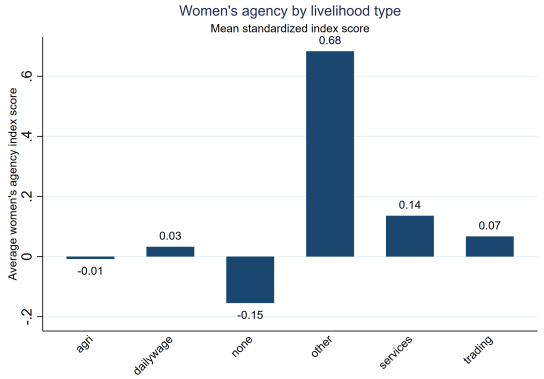
Note: The figure shows the mean standardized entrepreneurial confidence index score across livelihood types.

Figure B.9. SHG support by livelihood type



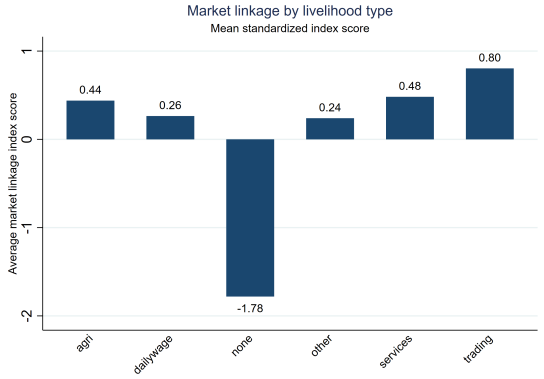
Note: The figure shows the mean standardized SHG support index score across livelihood types.

Figure B.10. Women's agency by livelihood type



Note: The figure shows the mean standardized women's agency index score across livelihood types.

Figure B.11. Market linkage by livelihood type



Note: The figure shows the mean standardized market linkage index score across livelihood types.

Appendix C. Measuring Enterprise Income and Profit — The AAA Approach

Why Standard Income Questions Fall Short

Single-question recall measures of enterprise income are systematically unreliable for micro-entrepreneurs. Research consistently shows that respondents underreport income by around 30%, estimates are highly noisy across firms, and reported figures fluctuate substantially for the same firm month to month (Anderson et al., 2019; de Mel et al., 2009). Calculated profits — derived as sales minus costs — are frequently negative, even for viable businesses. As a result, genuine livelihood improvements are difficult to detect, which is a direct threat to the study's ability to measure treatment effects on income.

The AAA Approach: Anchor, Aggregate, Adjust

To address this, we recommend adopting the AAA approach (Anderson et al., 2019), adapted for the Indus Action context. Rather than asking income once, the approach collects three parallel estimates of the same quantity — total sales in the last 30 days — each anchored to a different recall window. The respondent is then shown all three estimates simultaneously and asked to provide a final best guess, reconciling across them. This iterative process produces more plausible, stable, and accurate estimates than any single recall question.

For Indus Action: The AAA Light Version

Given interview time constraints, we recommend the "AAA Light" version, which applies the triangulation approach to sales and then asks profits directly via aided recall, skipping the detailed cost decomposition. This saves approximately 30 minutes per interview while retaining most of the measurement gains — aided-recall profits correlate 0.6–0.8 with full AAA profits (Anderson et al., 2019).

Step 1 — Sales: Three Estimates

The three sales estimates are collected as follows.

Estimate A (Monthly recall): "In the last 30 days, how much money in total came in to your business from selling your products or services?" Record exactly as given; do not probe or allow

revision at this stage. This becomes the lower anchor in the final triangulation.

Estimate B (Weekly anchors): Ask for the respondent's best week and worst week last month. SurveyCTO auto-calculates:

$$\text{Estimate B} = \frac{\text{Best week} + \text{Worst week}}{2} \times 4.25$$

Show the result to the respondent and allow her to adjust her inputs if the figure does not seem right.

Estimate C (Daily anchors): Ask for yesterday's sales, best day last month, and worst day last month. Show all three back and ask: "On a typical day last month, how much did you usually sell?" SurveyCTO then calculates:

$$\text{Estimate C} = \text{Typical day} \times \text{days per week} \times 4.25$$

Step 2 — Triangulation

After all three estimates are recorded, they are displayed together on one screen (see Figure C.3). The enumerator asks: "Looking at these three numbers, what is your best estimate of total sales last month?" The final answer does not need to match any of the three estimates — the respondent may revise any inputs before settling on a final figure.

Step 3 — Profits: Aided Recall

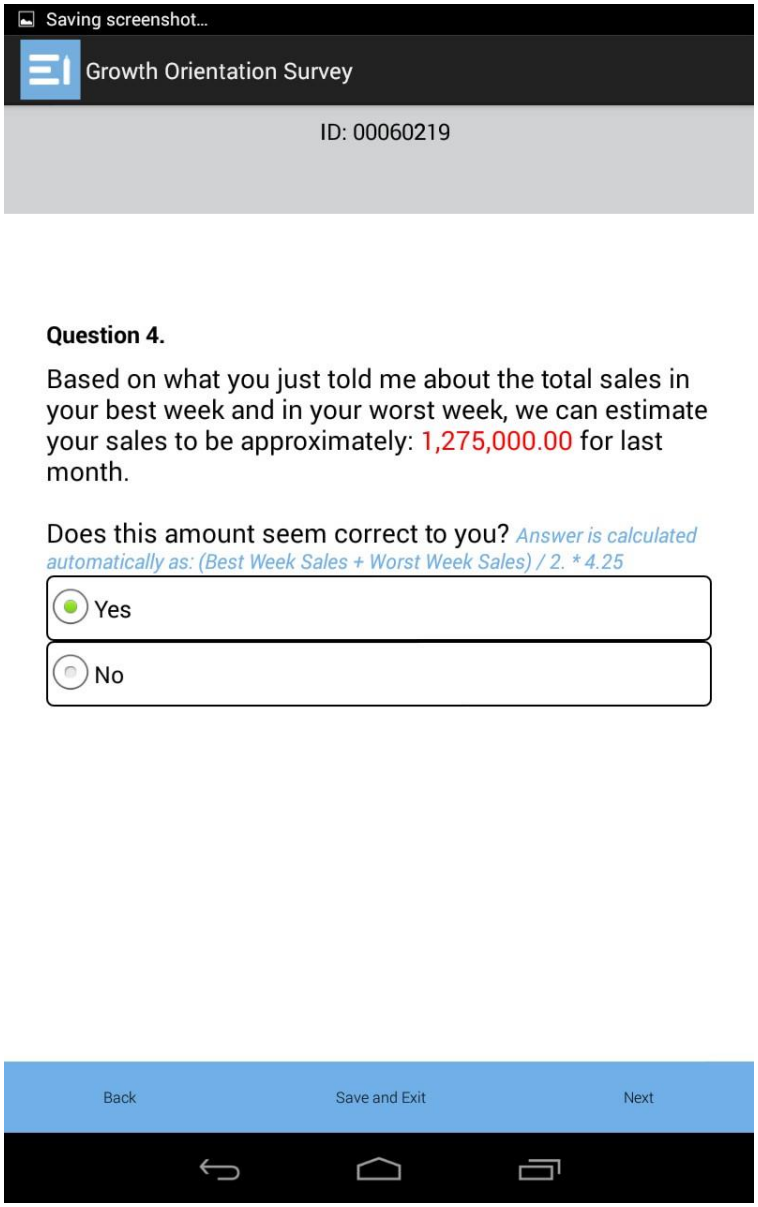
After completing the sales section, ask one question: "Out of all the money that came in to your business in the last 30 days, how much was left over after you paid for all bills, expenses, and salaries?" The sales section primes the respondent to think carefully about her business activity, making this aided-recall profit estimate substantially more reliable than asking profits cold (de Mel et al., 2009).

Specific Adaptations

Several adaptations are important given the rural SHG context. Enumerators should use local language equivalents for "business" (e.g., *kaam*, *vyavasaay*, *dhanda*) and express all amounts in rupees rounded to round figures. For non-literate respondents, calculations should be performed on paper or aloud. Given the high seasonality of livelihoods in the sample — particularly agriculture and livestock — the survey month should always be recorded so that income estimates

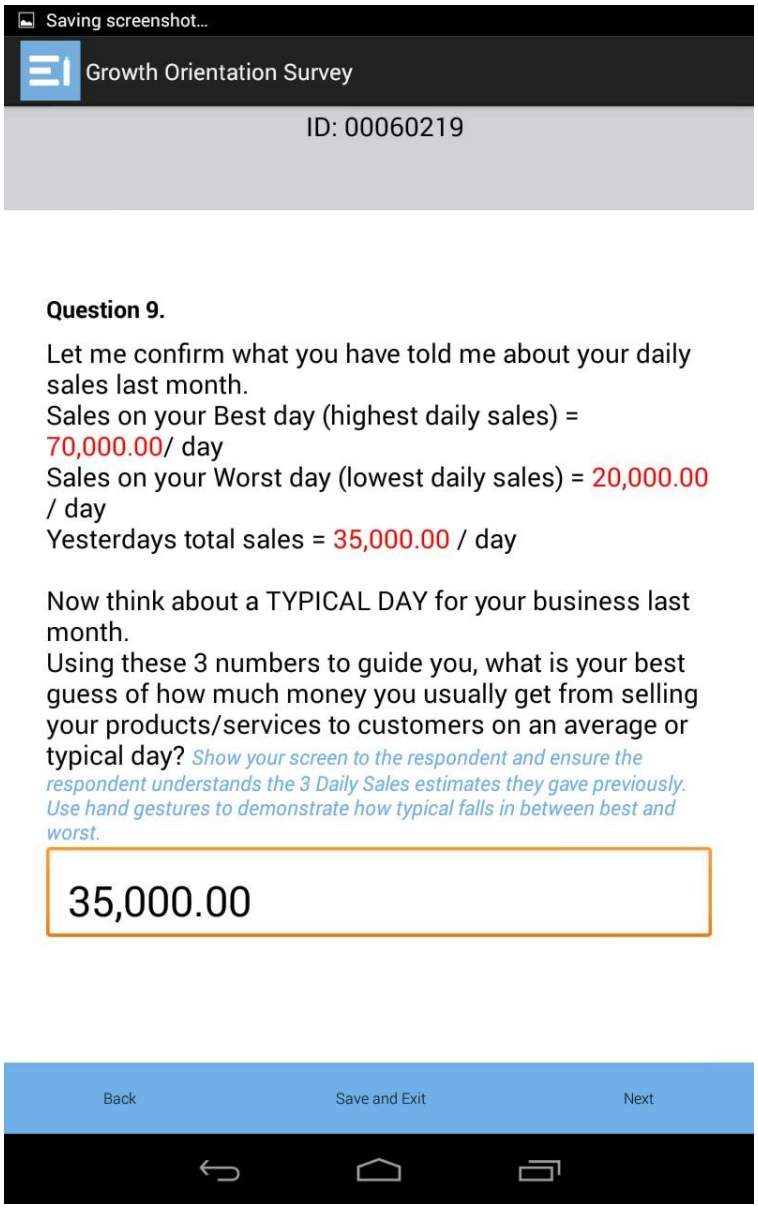
can be benchmarked against the same season in subsequent waves. For sole-operator businesses, enumerators should remind respondents to consider only money used for the business, not the household, and should always ask "how many days a week do you work?" before computing the daily aggregate.

Figure C.1. Weekly Sales Recall (Estimate B)



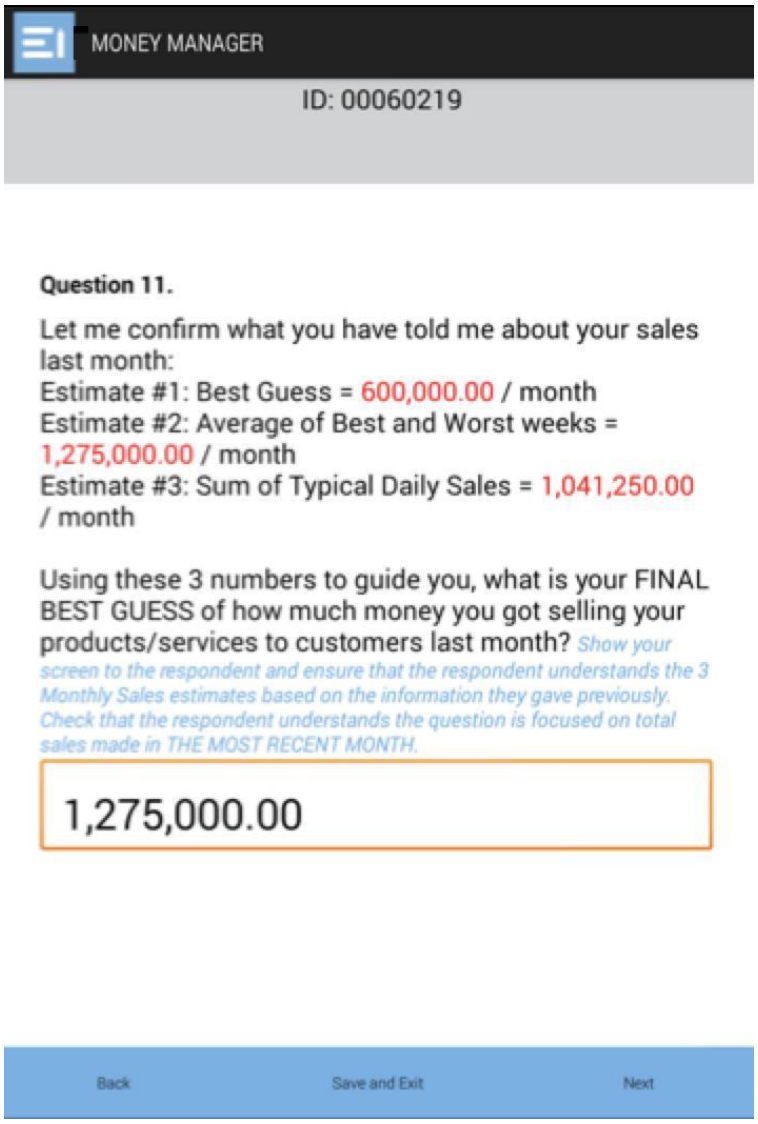
Note: SurveyCTO auto-calculates the weekly estimate and shows it back to the respondent for confirmation or revision. Source: Anderson, Lazicky, & Zia (2019), Figure 1.

Figure C.2. Daily Sales Recall (Estimate C)



Note: Three daily anchors are shown back to the respondent, who then provides a "typical day" figure. Source: Anderson, Lazicky, & Zia (2019), Figure 2.

Figure C.3. Total Sales Summary — Triangulation Screen



Note: All three estimates are shown simultaneously. The respondent provides her final best estimate of monthly sales, which need not match any individual estimate. Source: Anderson, Lazicky, & Zia (2019), Figure 3.