WFP EVALUATION

Mali, Resilience Learning in the Sahel

Impact Evaluation Baseline Report

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TRANSFORM DEVELOPMENT

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Disclaimer

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Overview

This report presents the preliminary analysis of the data obtained from the baseline survey conducted in the Gao, Koulikoro, Mopti and Tombouctou regions of Mali. The baseline survey was conducted during the first quarter of 2021, as part of the impact evaluation of the WFP's integrated resilience programme in Mali. The detailed inception report of the impact evaluation can be found here.

This section provides an overview of the programme, impact evaluation and key insights from the baseline. Details of the impact evaluation design and baseline statistics can be found in subsequent sections of the report.

1.1. Programme Summary

The integrated resilience programme in Mali aims to promote the capacities of communities to absorb shocks, adapt to risk, transform livelihoods, and, more broadly, achieve sustained food security. The programme includes four main components: (i) food assistance for assets (FFA); (ii) school feeding; (iii) nutrition; and (iv) value chain and smallholder agriculture market support (SAMS). These are implemented in parallel with social safety net interventions aiming to address the immediate needs of the most vulnerable people within the targeted communities (e.g., lean season support, COVID-19 cash transfers, etc). Planning and prioritization of activities under the programme are supported and guided by the community-based participatory planning (CBPP) process.

The impact evaluation uses FFA sites as the entry point for understanding how layers of WFP activities strengthen households and community resilience capacities, following the WFP FFA programme guidance manual.[1] The WFP FFA programme guidance manual describes the core functions of FFA to include, simultaneously, the direct provision of food or cash-based transfers to meet the consumption needs of the most vulnerable (i.e., short-term access to food) as well as the construction/development of household and community assets that reduce the risk of disaster, strengthen livelihoods, and build resilience over time. That is, all activities under the programme are implemented in the same communities identified for FFA activities, or the communities near to them. The FFA programme consists of the direct provision of food or cash-based transfers in exchange for work on household and community assets that reduce the risk of disaster, strengthen livelihoods, and build resilience over time. The strong emphasis on asset creation and its impacts on people and communities distinguishes FFA from

[1] 2016 – Food Assistance for Assets (FFA) for Zero Hunger and Resilient Livelihoods Manual | World Food Programme (wfp.org)

other forms of delivering food assistance (such as food for work or cash for work programmes).

The impact evaluation in Mali covers four regions: Mopti, Tombouctou, Gao, and Koulikoro, focusing on 91 villages across 14 communes, which have a total of 4,841 households.[2]

1.2. Window Summary

The concept of resilience has gained attention because it recognizes the importance of addressing shorter-term humanitarian needs while simultaneously supporting communities to face future crises induced by climate change, conflict, and other factors. Many institutions, including the World Food Programme and the World Bank, have increasingly used the concept as a basis for their programming. To strengthen resilience, organizations employ an integrated approach to programming, where multiple forms of support are provided to the same community over multiple years.

Rigorous evidence on how these interventions contribute to resilience is needed to better design programmes that simultaneously address the root causes of food insecurity and malnutrition while meeting immediate food needs. The Climate and Resilience Impact Evaluation Window aims to support programmes in generating this evidence. Windows are coordinated portfolios of impact evaluations on a specific evidence area – in this case, climate change and resilience.[3] They allow WFP country offices to learn what works in a way that informs their own programming and contributes to a global evidence base by examining similar questions about resilience in multiple programming contexts.

The window supports resilience programme teams in designing impact evaluations to understand how the integrated packages of interventions and activities within the package contribute to resilience. The first pre-analysis plan for the window describes policy experiments to estimate the impacts of experimentally varying programme support, including nutrition, school feeding, lean season support and SAMS on resilience. Within the window, resilience is measured using a two-pronged approach: (1) by measuring changes in key well-being outcomes and capacities at baseline and endline; and (2) by measuring food security, shocks and coping strategies on a bi-monthly basis to detect changes across seasons, shocks and stressors.

Coordinated data collection and experimental designs across multiple countries will allow for pooling impact estimates over these contexts to show variation across contexts and maximize the generalizability of evidence (including Mali, Niger, Rwanda, and South Sudan). Within countries, data on the timing, targeting modalities of delivery and

[2] The WFP's resilience package in Mali covers five regions: Mopti, Tombouctou, Gao, Koulikoro, and Menaka.

[3] Those windows are part of the WFP's impact evaluation strategy and are coordinated by the WFP's Office of Evaluation (OEV) and the Development Impact Evaluation Department (DIME) of the World Bank.

participation levels will produce actionable evidence to optimize programme impacts during the implementation period.

1.3. Impact Evaluation Questions

The impact evaluation of the WFP's integrated resilience programme in Mali will help in understanding how an integrated package of activities contributes to resilience. In addition, the Mali impact evaluation is also part of a broader evidence agenda for resilience in the Sahel, the "impact evaluation for resilience learning" initiative funded by BMZ, which includes a similar impact evaluation design and data strategy in Niger.

The impact evaluation is designed as a cluster randomized control trial (RCT). The evaluation includes a baseline survey before the intervention, several rounds of bi-monthly high-frequency surveys (HFS) during the intervention and an endline survey after the intervention.[4] In addition to quantitative data, the impact evaluation will use qualitative data to examine important process-related questions. Regional discussions, in-country consultations, and subsequent conversations with the programme and M&E teams have helped identify the priority impact evaluation question for the Mali country office. The impact evaluation will focus on answering the following question: What is the impact of the integrated WFP resilience package (FFA, SAMS, nutrition/health, and education) on recipient communities and households?

The main focus is on documenting impacts on household resilience as measured through food security and welfare. The study will also directly assess how the resilience programme affects households' ability to mitigate the effects of shocks on their food security and well-being, improving the capacity of households to absorb shocks and adapt to contexts in the short to medium term. Short-term improvements in household consumption can have positive impacts several years after the intervention,[5] indicating an increase in adaptive capacity. However, to understand the longer-term impacts of assets created during the programme would require additional follow-up surveys in years to come. In addition, the impact evaluation assesses how the effectiveness of the WFP resilience package varies by households' initial poverty or food security levels within targeted communities.

1.4. Baseline Survey Process

The impact evaluation relies on a clustered randomized design for estimating the impact of

[4] Further details on the integrated resilience package and the impact evaluation design can be found in the Impact Evaluation Inception Report.

[5] Kondylis, Florence & Loeser, John. 2021. *Intervention Size and Persistence*. Policy Research Working Paper, No. 9769. World Bank. https://openknowledge.worldbank.org/handle/10986/36242 (accessed on 29 December 2022).

the resilience programme. The resilience programme in Mali covered 59 villages where FFA activities had been active since 2018 – with a break in 2019 – before the impact evaluation was designed. In 2021, the programme expanded to 45 additional villages in the vicinity of the 59 existing ones. We leverage this programme expansion for the impact evaluation design.

From a set of 174 villages (clusters) eligible for the programme expansion across four regions, we randomly selected the 45 villages (treatment group) that will receive the FFA component, along with the other resilience activities, during the impact evaluation's life cycle. The remaining 129 villages were randomly assigned to two groups: the comparison group (46 villages) and the wait-list group (83 villages). The villages in the comparison group provide valid counterfactuals for estimating the impacts of the resilience programme. The impact evaluation and survey sample includes the 46 comparison villages and the 45 villages in the treatment group.

Prior to the baseline survey, a household listing process was carried out in all villages in the treatment and comparison group, as part of the broader Unified Social Registry (RSU) initiative by the Government of Mali. The impact evaluation team supported this process in the 91 villages that are included in the impact evaluation.

For the baseline survey, the research team randomly sampled 60 (plus five replacement) households per village using data from the Unified Social Registry (RSU), resulting in a total of 5,093 households (some villages had fewer than 60 households; in those cases, the research team sampled all households). The baseline multi-module household survey allows us to measure capacities such as assets, and capabilities that are expected to predict food security dynamics. The baseline survey is also implemented with the larger resilience measurement framework in mind, which requires regular follow-up surveys with the baseline households.

The impact evaluation aims to measure resilience by observing actual dynamics of well-being (e.g., food security, etc) over multiple time periods. This is achieved through follow-up to the baseline survey using shorter surveys administered every two months. This approach will allow us to observe households' exposure to shocks, seasonality, and trends in well-being. This allows for a more direct measurement of resilience, compared with constructing the resilience indices that may be associated with more favourable well-being dynamics.

The survey was developed with inputs from the WFP country office and extensively piloted with local communities to ensure questions were fully relevant to the context. The duration of the survey was approximately two hours. Data collection was conducted using Android tablets running SurveyCTO data collection software. The baseline survey was completed in January 2021.

Before the start of the baseline data collection, the impact evaluation team was requested by

the country office in Mali to collect data for the Registre Sociale Unifié (RSU), following a request by the Government of Mali. The volatile security situation did not permit the team to conduct both surveys at the same time. Therefore, the team had to collect baseline data after the completion of RSU data collection, which delayed the start of baseline data collection by one week. However, the team worked on a tighter timeline, in order to finalize data collection by mid-January 2021, as originally agreed with the country office. This ensured that baseline data collection did not cause a delay to the programme implementation start date.

1.5. Key Insights

A large percentage of the households surveyed have high levels of food insecurity. Forty-one percent of households reported being severely food insecure (FIES – severe food insecurity) over the previous 12 months, and 36 percent of the households had a "poor" food consumption score (FCS). Similarly, respondents reported low levels of food consumption, and diets lacking nutritional diversity.

Only 14 percent of households have a female head of household. Most households are subsistence farmers who grow crops during the main agricultural season and have no formal education. Sixty-four percent of households reported growing crops from May until October, and 22 percent of households reported growing crops in the off-season. Non-agricultural businesses are not very prevalent. Eighteen percent of households report operating a non-farm business.

The three most common shocks included floods (38 percent of households), high food prices (experienced by 30 percent of households), and drought/irregular rain (experienced by 27 percent of households). But most households are also exposed to multiple shocks – households in the sample experienced an average of 2.4 per year. The most used coping strategies were reducing food consumption (employed by 29 percent of households) and selling livestock (employed by 13 percent of households).

This report verifies that the main outcomes of interest for the impact evaluation (such as food consumption, and food and nutrition security) are balanced between treatment and comparison sites at baseline, and thus documents that the randomization process was successful in generating a valid comparison group to estimate counterfactual outcomes over time. This is a necessary step to ensure that the impact evaluation is set up to deliver rigorous estimates of the short-run and medium-run impacts of FFA and the resilience package, including on the dynamics of food security over time.

Technical Report

1. Introduction

In 2020, 155 million people in the world faced "crisis or worse" levels of food insecurity. Close to 115 million of them lived in countries affected by conflict or weather extremes.[6] In Mali, every year since 2012, 3.6 million people on average (18 percent of the population) experience food insecurity.[7] Conflict, forced population displacements, and climate change are identified as exacerbating food insecurity.[8] However, evidence is lacking on how development outcomes are affected by these shocks, and how the WFP's programmes support populations to effectively respond to these shocks.

The World Food Programme's (WFP) Office of Evaluation, Asset Creation and Livelihood Unit, and the Climate and Disaster Risk Reduction Unit partnered with the World Bank's Development Impact Evaluation (DIME) department to create the Climate and Resilience Impact Evaluation Window. The WFP's Impact Evaluation Strategy (2019–2026) focuses on delivering impact evaluations that contribute to global evidence as well as organizational learning. Impact evaluation windows help to achieve this strategy by focusing portfolios of impact evaluations on priority evidence needs identified through literature reviews and extensive consultations.

The WFP Evaluation Policy 2022 defines impact evaluation as those that "measure changes in development outcomes that can be attributed to a specific programme or a policy through a credible counterfactual". The WFP's ability to establish a credible counterfactual for its interventions depends on logistical and financial constraints. Impact evaluations are therefore restricted to focusing on a set of questions that can be answered during a programme cycle using credible counterfactual designs.

The Climate and Resilience Window aims to understand how the WFP's programmes contribute to the resilience of the populations supported. The first round of impact evaluations selected for this window aims to estimate the impacts of integrated packages of resilience activities on households' capacity to absorb shocks (absorptive capacity), adapt to increasing environmental or economic stressors (adaptive capacity), and improve well-being in the long term (transformative capacity). The WFP's Integrated Resilience Programme in Mali consists of a range of activities, including food assistance for assets (FFA), nutrition support, school feeding, and smallholder agriculture market access (SAMS) activities.

[6] https://docs.wfp.org/api/documents/WFP-0000127413/download/
[7] https://www.wfp.org/operations/ml02-mali-country-strategic-plan-2020-2024
[8] https://www.wfp.org/publications/global-report-food-crises-2021#:~:text=The%20number%20identified%20in%20the,root%20causes%20of%20extreme%20hunger

The impact evaluation in Mali will focus on one main priority question for the WFP, namely: What is the impact of the integrated WFP resilience package (FFA, SAMS, nutrition/health, and education) on the resilience of recipient households and communities?

The main focus will be on documenting impacts on food security and related changes in well-being associated with households' resilience capacities. To identify the causal impact of the resilience programmes, the impact evaluation utilizes a clustered randomized comparison trial (RCT) design. Eligible sites are randomly assigned to either the treatment or comparison groups. The impact evaluation will measure key indicators through large-scale baseline and follow-up surveys.

The surveys collect indicators related to consumption, food security, nutritional status, financial outcomes, assets, livelihoods, and coping strategies. In addition, a subset of food security indicators will be measured through high-frequency surveys conducted every two months in a subsample of households. The evaluation will also directly assess how the resilience programme affects households' ability to mitigate the effects of shocks on their food security and well-being. Lastly, the impact evaluation will answer additional sub-questions, such as whether the effectiveness of the WFP's resilience package varies depending on a household's initial poverty and food security levels, or whether the resilience programme has any observable environmental impacts on site-level outcomes, such as vegetation indices around the sites where FFA activities recuperate land. Qualitative data will also be used to understand how the programme is being implemented, and how the support provided through the programme is being perceived by the beneficiaries, generating additional insights about the patterns observed in the quantitative data.

This baseline report presents data from the baseline survey to provide information about the pre-programme situation of households in the study sample communities. The report begins by describing the impact evaluation design (section 3). This is followed by descriptive statistics illustrating the baseline characteristics of sample households, including balance between randomized treatment and comparison groups (section 4). The final section describes the process for targeting beneficiaries for key components of the resilience programme, with emphasis on differences in baseline characteristics between targeted and non-targeted households (section 5).

2. Impact Evaluation Design and Sampling

Mali's resilience programme is aligned with the country strategic plan (CSP) objectives and includes interventions that aim to promote the capacities of households and communities to absorb shocks, adapt to risks, transform livelihoods, and, more broadly, in the living environment, to exit poverty. It includes (1) food assistance for assets (FFA), (2) nutrition/health, (3) value chain and smallholder agriculture market support (SAMS), and (4) school feeding. These are implemented in parallel with social safety net interventions aiming to address the immediate needs of the most vulnerable people within the targeted communities (e.g., lean season support and COVID-19 cash transfers).[9] The planning and prioritization of these interventions is supported and guided by the community-based participatory planning (CBPP) process.

2.1. Treatment and Comparison Groups

In Mali, villages are important entry points for programme targeting and implementation. Many activities critical to the programme are implemented at the village level, as opposed to household or individual-level interventions. Therefore, the impact evaluation utilizes a clustered randomized design where villages are assigned to treatment or control for estimating credible and unbiased treatment effects of the resilience package.

The resilience programme in Mali covered 59 villages where FFA activities had been active since 2018 – with a break in 2019 – before the impact evaluation was designed. In 2021, the programme expanded to 45 additional new villages in the vicinity of the 59 existing ones. Since there are more eligible villages than the available resources can support, this funding constraint was leveraged to generate rigorous evidence on the programme using the impact evaluation.

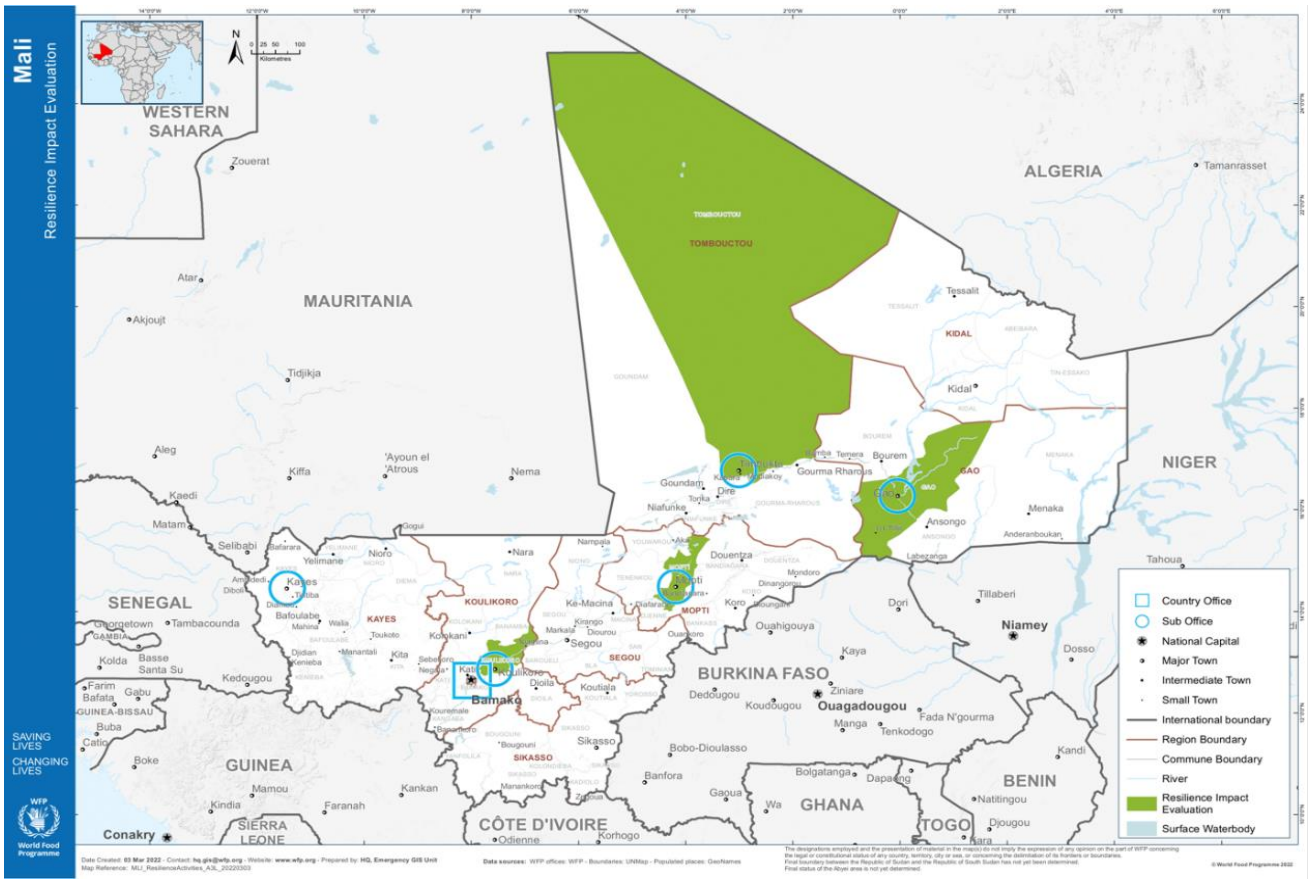
From a set of 174 villages (clusters) eligible for the programme expansion across four regions, 45 villages (treatment group) were randomly selected to receive the resilience programme during the impact evaluation period. The remaining 129 villages were randomly assigned to two groups: the comparison group (46 villages) and the wait-list group (83 villages). The randomization process was stratified by region. The villages in the comparison group provide valid counterfactual for estimating the impacts of the resilience programme. Respecting a sufficient sample size, the randomization eliminates any systematic differences

[9] Further details on the integrated resilience package and the impact evaluation design can be found in the Impact Evaluation Inception Report.

between the treatment and comparison groups and thus creates a valid counterfactual. The impact evaluation surveys include households from the 46 comparison villages and the 45 treatment villages. The wait-list group of 83 villages is outside the impact evaluation sample and has not been surveyed for the impact evaluation.

The wait-list group allowed for having a ready list of eligible villages, in case future financial availability might open the opportunity for more villages to receive the programme. The wait- list group of 83 villages will be prioritized for programme participation in case new funding becomes available. The comparison group of 46 villages will be considered for programme participation after the wait-list group has been incorporated. It is important to note that villages in comparison, treatment and wait-list groups were selected to receive support through the COVID-19 safety nets programme in 2021. The detail of this support is explained below.

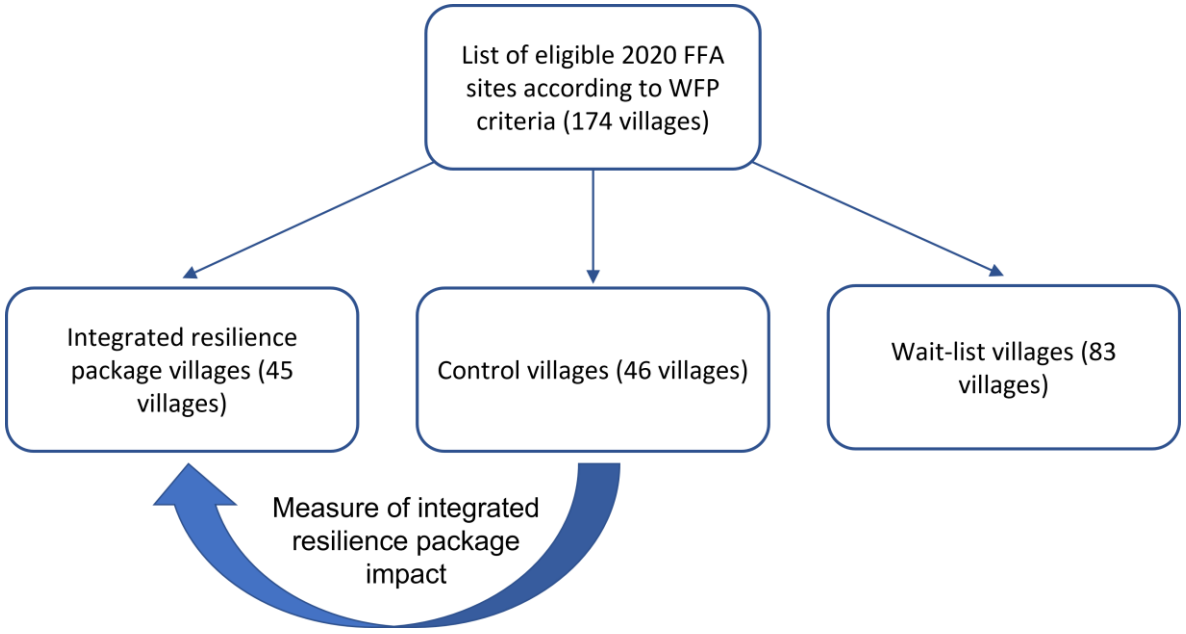
Figure 1: Map of the regions included in the impact evaluation in Mali



The randomization is depicted in Figure 2 below. The evaluation itself does not make any commitments to provide programme support to households surveyed in the treatment, comparison, or wait-list groups, and will also not impose any artificial constraints for potential beneficiaries in receiving programme benefits. Instead, the randomized assignment is an objective and unbiased mechanism to decide which of the eligible villages, all meeting the exact same eligibility criteria for support, should receive the programme

during the impact evaluation period. Respecting a sufficient sample size, the randomization eliminates any systematic differences between the treatment and comparison group and thus creates a valid counterfactual. A full list of all the villages along with their treatment status is provided in the Annex Table 16.[10]

Figure 2: Resilience package experimental design in Mali



Note: Wait-list villages are to be considered first for programme participation if funding becomes available.

Top-up with COVID safety net programme. Within the same communes where the resilience programme is implemented, the Mali WFP country office also implements a safety net programme to support vulnerable communities impacted by the COVID-19 shock. The key activities of the safety nets programme include:

- Unconditional cash transfers (UCT)
  - Eligible households within targeted villages will receive a direct cash transfer of 15,000 FCFA (about 30 USD) monthly for at least six months.
  - All villages (in treatment and) in the resilience impact evaluation sample are included.
  - Eligibility within targeted households is based on the food consumption score (FCS),

[10] This table shows villages in the core impact evaluation sample. Among the 46 villages assigned (comparison group) and the 45 assigned to treatment, some were entirely inaccessible before the baseline and had to be replaced. Specifically, one treatment and two comparison villages had to be replaced, leaving 44 treatment villages and 44 comparison villages in the core impact evaluation sample. Three replacement villages were added, with Kourba being replaced by Mekore (treatment), 1e Quartier (cm) by Nomades (comparison), and Neguessambougou by Tiebleboungou (comparison). These replacement villages are not part of the core impact evaluation sample.

as measured by the Social Unified Registry (RSU).

- Nutrition support
  - This includes one-time top-up payments that will complement the UCT and provide assistance to households with children less than 2 years old (70 USD top-up), or with pregnant or nursing women (90 USD top-up).
  - Eligibility is limited to households eligible for the safety nets and with children less than 2 years old, or with pregnant or nursing women.

The COVID safety nets intervention will be implemented throughout the impact evaluation geographical area. Since it will be implemented in both treatment and comparison villages, it presents no risk of bias for our impact estimates. However, it does mean that the impacts captured for the resilience intervention will be above and beyond the effects of this safety nets intervention. However, in general, we would expect other interventions, even if from other organizations, to be happening in the background of any impact evaluation in such a fragile context. This will be monitored through data collection efforts, and the findings will be interpreted accordingly.

2.2. Study Sample and Data

Sample sizes were established based on power calculations, which indicated that surveying about 60 households per cluster in 91 clusters provided sufficient statistical power. Details of the sampling strategy and power calculations are provided in section 4 of the inception report.[11] More importantly, they also indicated that there will be enough households among the most food-insecure (and safety-net-eligible households) and the less food-insecure (and safety-net-ineligible households) to conduct our analyses within each stratum with sufficient statistical power.

The data collection efforts in Mali started with the Unified Social Registry (RSU[12]), a full census of households in the 91 study villages. Data collection for the RSU in the 91 study villages was conducted in December 2020 by DIME. Overall, 22,445 unique households were identified as part of the RSU data collection. For the baseline survey, the research team randomly sampled 60 (plus five replacement) households per village using data from the Unified Social Registry (RSU), resulting in a total of 5,093 households. It is important to note that some villages had fewer than 60 households; in those cases, the research team sampled all households. Of the 5,093 households sampled, 4,841 households were found and

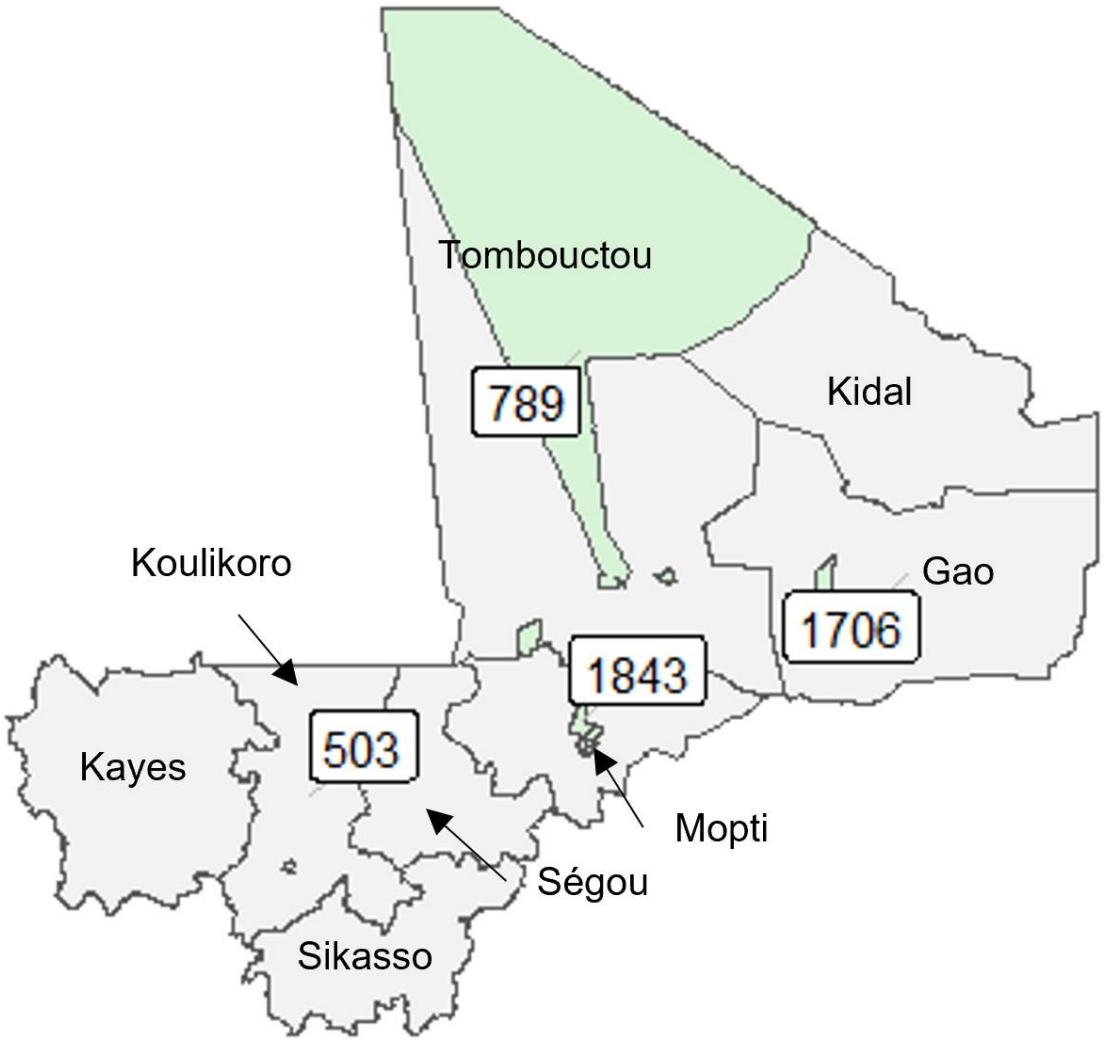
[11] 727 households are needed in each cluster to detect changes of 0.2 standard deviations in key outcomes. As such, the study was powered to support analysis between two subgroups.
[12] The RSU is the Government's social protection tool that will be used by the WFP and other partners to select beneficiaries for the social protection programme. The RSU provides a complete listing of households in all participatory and comparison villages, as well as a classification of households, with the objective of identifying the different socioeconomic strata and wealth distribution within villages.

consented to be interviewed (a 95 percent response rate). The 91 study villages are located in four regions (Koulikoro, Mopti, Tombouctou, and Gao), as shown in Table 1.

Table 1: Number of baseline surveys by region in the Mali sample

	Households	Share
KOULIKORO	503	10.39
MOPTI	1,843	38.07
TOMBOUCTOU	789	16.30
GAO	1,706	35.24
Total	4,841	100.00

Figure 3: Number of baseline surveys by region in Mali



Note: The map displays the administrative regions of Mali and highlights (in green) the 14 communes where the impact evaluation is being conducted.

2.3. Data Source and Tools

The baseline data collection relied on a multi-module household survey instrument capturing indicators in the following domains, which are aligned with the study objectives, impact evaluation inception report, and window pre-analysis plan:

1. Information about the household (household characteristics)
2. Main outcomes of interest:
    - Food security (food consumption score, food insecurity scale, and Household Dietary Diversity Score)
    - Consumption (food and non-food)
    - Income-generating activities: agriculture and livestock, wage employment, non-agriculture business
    - Shocks
    - Coping strategies
    - Financial outcomes.
3. Additional outcomes:
    - Social capital
    - Time use
    - Psychosocial well-being
    - Programme participation.

In line with the study design described in the inception report, the impact evaluation aims to measure resilience by observing actual welfare dynamics over multiple time periods. Therefore, resilience is measured in a dynamic way, by looking at outcomes (i.e., food security) at different points in time.[13] This approach will allow us to observe households' exposure to shocks, seasonality, and trends in welfare rather than indices of characteristics that are ex-ante believed to be associated with more favourable welfare dynamics.

The baseline survey allows us to measure capacities such as assets, and capabilities that are expected to be predictive of welfare. We do not intend to aggregate them into indices until we can do so through the actual observed food security dynamics in successive data

[13] Consumption and food security outcomes are measured by food consumption score (FCS), Food Insecurity Experience Scale (FIES), and expenditure, as explained in Annex 3 in the inception report. This approach to resilience measurement differs from previous resilience indices, which measured resilience at one point in time, or before and after an intervention, and are static in nature.

collection rounds.[14]

The questionnaire was developed with inputs from the WFP country office and extensively piloted with local communities in Mali to ensure questions were fully relevant to the context. The duration of the baseline survey was approximately two hours. Data collection was conducted using Android tablets running the SurveyCTO data collection software. The evaluation team formulated extensive protocols to guide data collection for the enumerator teams. A two-week enumerator training was conducted in a classroom and also included field pilots. During the data collection, high-frequency consistency and performance quality checks were conducted on a daily basis. These checks included flagging missing observations, duplicate observations, unusual survey duration, unusual number of "no-consent" responses, and other inconsistent patterns in the data. Any anomalies detected through this process were flagged to the data collection team immediately for correction. To ensure that data collection met the highest data quality standards, the team also performed a set of back-checks. This refers to drawing a random 10–20 percent sample of households and re-visiting/calling them back to validate some of their answers. Cross-checking the data allowed us to provide immediate feedback to the field teams in case of divergences or other problems.

2.3.1. Baseline Data Collection Challenges

During the initial phase of discussion regarding the impact evaluation design and timeline of the evaluation with the country office, it was agreed that programme implementation would start after the baseline survey had been completed. This approach minimizes the risk that survey participants associate the survey with potential programme benefits and may be tempted to over- or underreport key outcomes of interest (e.g., income, etc).

Before the start of baseline data collection, the impact evaluation team was requested by the Mali country office to collect additional census data for the Mali Registre Social Unifié (RSU) in response to a request for support from the Mali Government. However, this was not part of the original baseline data collection plans for the impact evaluation.

Following agreement from the Office of Evaluation for the impact evaluation team to support the country office with the RSU, initially, the team had planned to collect RSU data and baseline data simultaneously, employing many enumerators on the ground, in order to adhere to the timeline originally agreed with the country office. However, given the volatile security context on

[14] Common resilience indicators such as Resilience Index Measurement and Analysis (RIMA) are constructed from aggregating measures that are ex-ante expected to predict welfare dynamics, like the ability to avoid poverty over time. Rather than construct these measures *a priori*, the approach of the window is to directly measure welfare dynamics in order to determine empirically which capacities are associated with observed dynamics.

the ground, the survey team was advised to maintain as few people as possible on the ground and to limit movements that could draw attention. For this reason, the team collected RSU data first and then started the data collection of the baseline survey. This led to a delay in the start of baseline data collection of one week.

The impact evaluation team reduced the duration of the baseline data collection period, working on a tighter timeline to complete data collection within the timeframe as originally planned. Therefore, baseline data collection was completed around mid-January 2021, as previously agreed with the country office.

3. Baseline Balance and Descriptive Statistics

The main outcomes analysed in this report are selected based on the objectives of the WFP's integrated resilience programme. They are: food security, consumption (food and non-food), income-generating activities, shocks, coping strategies, and financial outcomes. In addition, other variables such as financial support, time use, psychological well-being, and programme participation are presented for their relevance to the concept of resilience.

In this section, we show the baseline situation of households in the study sample. We first present a formal analysis of the balance (similarity) between treatment and comparison groups, as a validation of the randomization procedure underlying the impact evaluation strategy. We then present summary statistics of household demographics, main outcomes, and other outcomes of interest.

3.1. Balance of Baseline Outcomes Across Treatment Groups

The internal validity of our experimental impact evaluation hinges on the randomized design described in section 2. In this section, we examine the balance of covariates (e.g., household characteristics) and outcomes at baseline between treatment and comparison groups, to confirm the integrity of the design. Table 2 summarizes the standardized differences between treatment and comparison groups along key characteristics. A longer list of indicators is presented in the Annex, section 6.1, which systematically compares indicators between the treatment and comparison groups.

Overall, we observe good balance of covariates between treatment and comparison groups. The treatment and comparison groups vary only on a few variables, as expected following a successful randomization. When imbalances are observed, they are often weakly statistically significant or of small magnitude. Specifically, compared with the comparison group, the treatment group had significantly higher revenue from crop sales, they reported higher stress levels (Cohen's stress index) and experienced a higher number of shocks. At the same time, the number of negative coping strategies used is significantly lower for the treatment group.[15] Overall, considering the level and magnitude of significance, the comparison and treatment groups are confirmed to be similar at baseline, and we will be able to estimate programme impacts through the difference in outcomes between

[15] The few variables that are statistically different between the two groups are as follows. We observe significantly higher means in the treatment group for household revenue from crop sales, Cohen's stress index, number of shocks experienced, and percentage of households that applied for a loan. We observe significantly lower means in the treatment group for the number of coping strategies used.

treatment and comparison groups at follow-up.

Table 2: Balance of baseline covariates in Mali

	Mean treatment	SD treatment	Mean control	SD control	Mean difference	t-test	p-values
Household (HH) size	5.87	3.46	6.06	4.03	-0.19	(-1.78)	(0.07)
% female HH head	13.70	34.39	13.31	33.97	0.39	(0.40)	(0.69)
Total HH assets owned by HH	1.91	1.95	1.79	1.84	0.12*	(2.28)	(0.02)
Total farm assets owned by HH	0.74	1.46	0.74	1.38	-0.01	(-0.17)	(0.86)
% of HH head employed in the last 12 months	19.40	39.55	18.88	39.14	0.52	(0.46)	(0.65)
% of adults employed in the HH	11.95	25.15	12.20	25.80	-0.25	(-0.34)	(0.73)
Per capita HH wage income (monthly)	13,149.65	22,526.93	13,503.15	22,270.12	-353.50	(-0.26)	(0.80)
HH revenue from crop sales (annual)	54,276.89	144,751.50	43,113.62	146,433.87	11,163.27*	(2.17)	(0.03)
Livestock count	11.88	12.16	10.95	10.94	0.93	(1.58)	(0.11)
Profit from livestock and products (last 6 months)	5,782.54	41,262.34	4,073.17	41,639.35	1,709.37	(1.43)	(0.15)
Food consumption score (FCS)	40.05	21.68	40.72	22.27	-0.67	(-1.06)	(0.29)
Household Dietary Diversity Score (HDDS)	4.08	1.71	4.11	1.70	-0.03	(-0.57)	(0.57)
Food Insecurity Experience Scale (FIES)	4.15	3.43	4.19	3.40	-0.03	(-0.33)	(0.74)
% minimum dietary diversity for women (MDD-W)	10.02	30.06	9.00	28.64	1.02	(0.55)	(0.58)
% minimum acceptable diet (breastfed children)	0.00	0.00	0.00	0.00	0.00	(.)	(.)
% minimum acceptable diet (non-breastfed children)	9.52	29.71	9.38	29.61	0.15	(0.02)	(0.98)
HH total consumption – monthly	41,978.94	41,101.44	42,784.65	43,122.31	-805.71	(-0.66)	(0.51)
Food expenditure share (FES %)	64.85	24.58	65.90	24.16	-1.05	(-1.50)	(0.13)
Per capita total consumption – monthly	8,433.02	8,929.64	8,569.69	9,070.75	-136.67	(-0.53)	(0.60)
Life satisfaction today (1–10)	4.02	1.68	4.09	1.74	-0.07	(-1.48)	(0.14)
Cohen's stress index (0–40)	19.38	4.10	19.05	4.39	0.33**	(2.65)	(0.01)
Female locus of control (0–10)	5.57	1.57	5.35	1.52	0.21	(0.66)	(0.51)
Number of shocks experienced	2.37	2.40	2.17	2.06	0.20**	(3.14)	(0.00)
Number of coping strategies used	0.80	1.38	0.99	1.44	-0.19***	(-4.54)	(0.00)
% of HHs used any savings mechanism	9.65	29.53	9.91	29.88	-0.26	(-0.30)	(0.76)
% of HHs applied for a loan	10.72	30.94	8.91	28.50	1.80*	(2.11)	(0.03)
% HH received remittances (from HH member)	60.00	49.37	59.26	49.60	0.74	(0.08)	(0.94)
% of HHs received financial and non-financial transfers	1.79	13.25	2.07	14.23	-0.28	(-0.71)	(0.48)
Financial support index (FZ-score)	-0.04	0.96	0.00	1.00	-0.04	(-1.46)	(0.15)
Social cohesion and closeness to community (Z-index)	0.01	1.02	-0.01	0.98	0.03	(0.96)	(0.34)
Groups and collective action index (FZ-score)	3.65	117.75	0.00	1.00	3.65	(1.55)	(0.12)
Observations	2,519		2,322		4,841		

Note: *=p-value<0.1; **=p-value<0.05; ***=p-value<0.01

3.2. Descriptive Statistics

3.2.1. Household Demographic Characteristics

To understand the composition of the households in the sample (e.g., age, sex, etc), we first examined household demographic characteristics. The large majority of households surveyed in Mali are headed by a male with no education. Table 3 (Panel A, i.e., the top sub-part of the table below) shows that only 14 percent of households are headed by a female. Additionally, only 12 percent of all household heads have completed primary education. As shown in Panel B of the Table 3, there are an average of about six members per household. A household in the sample typically owns fewer than two assets. Mobile phones, carpets, mattresses, and chairs were the most common assets owned by households.

Table 3: Household characteristics in Mali

	Mean	SD	N
Panel A: Head of household			
% female HH head	13.51	34.19	4,841
% HH head with any primary education	11.90	32.38	4,782
HH size	5.96	3.74	4,841
Panel B: Household			
% HH has school-age children enrolled in school	22.49	34.67	3,847
Total HH assets owned by HH	1.85	1.90	4,841
Total farm assets owned by HH	0.74	1.43	4,841
% HHs have a member that migrated	7.50	26.34	4,787

Note: Categorical variables are displayed as yes/no variables where a respondent answering "yes" ascribes a value of 1, and "no" a value of 0. Thus, the mean value displayed here represents the proportion of the sample that belongs in a given category. For example, from Table 3, we can see that 24 percent of the sampled heads of household are female.

3.2.2. Gender Dimensions

The data collected at the baseline is disaggregated by sex. This allows us to gain better understanding on the status of women in the households surveyed. In the impact evaluation sample in Mali, only 13.51 percent of the households are headed by women. In a subset of households, the baseline survey collected data on the minimum dietary diversity for women (MDD-W). Table 4 below shows that less than 10 percent of women surveyed have achieved minimum dietary diversity and are likely to have adequate micro-nutrient intake. Similarly, the baseline survey also measures female locus of control, an index used to see if female-headed households believe they have control over certain situations and experiences. A higher score on the index (ranging from 0–10) implies less control over a person's environment. As outlined in Table 12, the female-headed households in Mali on average scored 5.46 on the index.

3.2.3. Primary Outcomes of Interest

Food Security

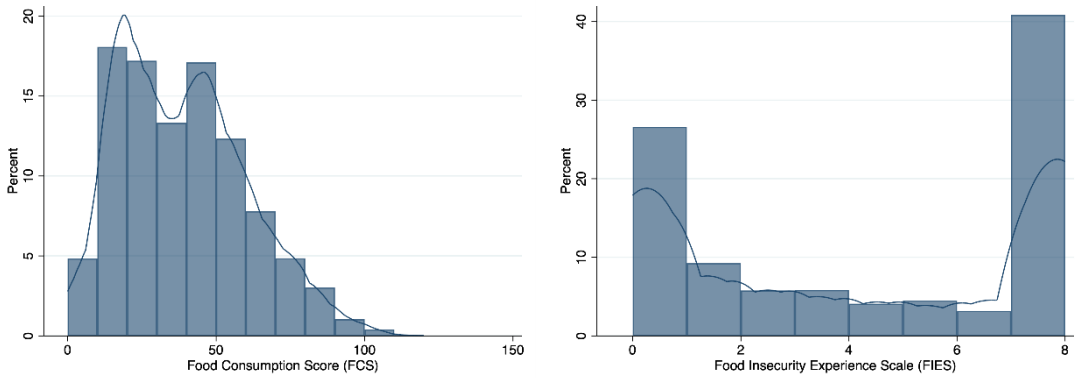
The FCS is calculated from the frequency of consumption of the different food groups over a seven-day period. A high FCS increases the likelihood that a household's food intake is adequate. Figure 3 shows the distribution for FCS. Table 4 shows that, at the time of the survey, 46 percent of households had an "acceptable" FCS, while 36 percent of households

had a “poor” FCS.

The HDDS is the sum of the different food groups (such as starches, vegetables, dairy products, and meat and poultry) consumed by the household during the previous seven days and is intended to reflect the ability to access a variety of foods. The HDDS was, on average, classified as low diversity (Table 4).[16]

The FIES is an index of eight questions that captures the severity of food insecurity in the past 12 months, with yes/no responses (e.g., “In the past 12 months, was there a time when you or others in your household worried about not having enough food to eat due to lack of money or other resources?”). Figure 4 shows the distribution for FIES. Table 4 shows that 47 percent of households reported experiencing food security (FIES – food-secure), while 41 percent of households reported being severely food-insecure (FIES – severe food insecurity) over the previous 12 months.

Figure 4: Food consumption and food insecurity experience scores in Mali



[16] A score below 5 is classified as low diversity.

Table 4: Food security in Mali

	Mean	SD	N
Panel A: Food consumption score			
Food consumption score (FCS)	40.37	21.97	4,841
% FCS poor (0–28)	35.88	47.97	4,841
% FCS borderline (28.5–42)	18.92	39.17	4,841
% FCS acceptable (above 42)	45.20	49.77	4,841
Vitamin-A-rich foods			
% never consumed	45.45	49.80	4,841
% consumed sometimes	36.89	48.26	4,841
% consumed at least daily	17.66	38.14	4,841
Protein-rich foods			
% never consumed	22.64	41.85	4,841
% consumed sometimes	42.99	49.51	4,841
% consumed at least daily	34.37	47.50	4,841
Heme-iron-rich foods			
% never consumed	37.91	48.52	4,841
% consumed sometimes	47.61	49.95	4,841
% consumed at least daily	14.48	35.19	4,841
Panel B: Dietary diversity			
Household Dietary Diversity Score (HDDS)	4.09	1.70	4,841
% HHs low dietary diversity (0–4.5)	58.67	49.25	4,841
% HHs medium dietary diversity (4.5–6)	32.47	46.83	4,841
% HHs good dietary diversity (above 6)	8.86	28.42	4,841
% minimum dietary diversity for women (MDD-W)	9.51	29.36	988
% minimum acceptable diet (breastfed children)	0.00	0.00	290
% minimum acceptable diet (non-breastfed children)	9.46	29.47	74
Panel C: Subjective food insecurity			
Food Insecurity Experience Scale (FIES)	4.17	3.41	4,833
% HHs FIES – food secure (0–3)	47.35	49.93	4,841
% HHs FIES – moderate food insecurity (4–6)	11.71	32.16	4,841
% HHs FIES – severe food insecurity (7–8)	40.94	49.18	4,841

Note: Food consumption score (FCS) ranges from 0 to 112, the Household Dietary Diversity Score (HDDS) ranges from 0 to 7. Higher FCS, HDDS, MDD-W and MAD values imply better food security outcomes. The Food Insecurity Experience Scale (FIES) ranges from 0 to 8, based on respondents' yes/no answers to eight questions about food insecurity, with higher FIES scores indicating higher levels of food insecurity. FCS categories have been designed using the adjusted thresholds of Poor (0-28), Moderate (28.5-42) and Acceptable (above 42), following the recommendation of the World Bank Country Offices. The MDD-W (Minimum Dietary Diversity for Women) and MAD (Minimum Acceptable Diet) indicators were only collected for a subset of households during the data collection.

Consumption

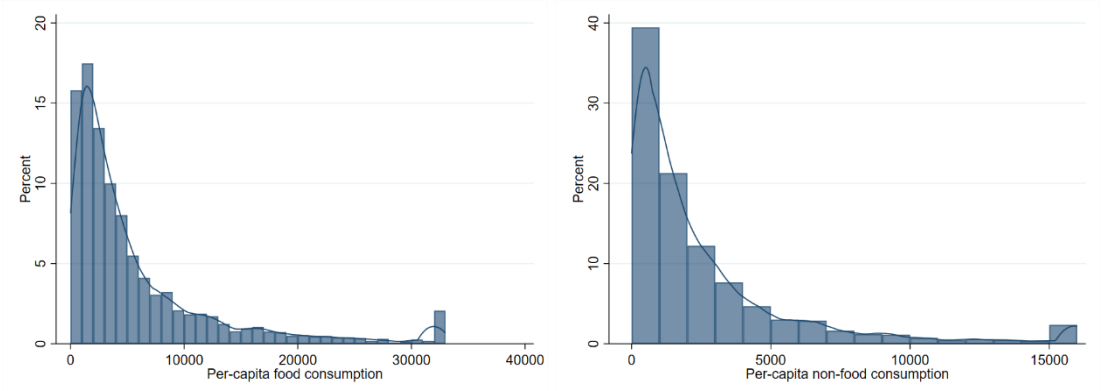
This module captures households' consumption of a list of food and non-food items. This gives us an indication of the poverty status of the household, as poorer households are more likely to spend a higher proportion of their income on food items. Data on food

consumption is collected by measuring the quantity consumed of a broad range of products that were obtained either from food purchases, own production, or gifts. Data is collected similarly for non-food consumption, namely the total amount households spent during the last month for a list of items in various categories (clothing, hygiene, transportation, etc). We then aggregated food and non-food consumption into a total consumption aggregate. The per capita indicator was calculated by dividing food consumption, non-food consumption, and total consumption by household size. While the total consumption indicators were provided to capture household poverty status, the breakdown between food and non-food can help us assess whether households participating in the resilience programme adjust their proportion of non-food relative to food consumption.

Table 5 presents the average household food, non-food, and total consumption per month in Mali. The average household food consumption was West African CFA Franc (XOF is the ISO currency code) XOF 28,094.36 per month, while household non-food consumption was FCFA 13,640.14 per month. The average monthly per capita consumption was FCFA 8,498.57. On average, per capita household food consumption was 69 percent of per capita household consumption – higher than household non-food consumption.

Finally, Figure 5 shows the distributions for food and non-food per capita consumption. The distributions have a long right tail as a smaller percentage of households spend more than FCFA 10,000 and FCFA 5,000 per capita on food and non-food items, respectively.[17]

Figure 5: Per capita food and non-food consumption in Mali



[17] The humps in the right tails are due to winsorization of the top and bottom 2 percent of observations to minimize the influence of outliers. Winsorization refers to the process of replacing the extreme values of statistical data in order to limit the effect of the outliers.

Table 5: Consumption in Mali

	Mean	SD	N
HH food consumption – monthly	28,094.36	30,288.89	4,841
HH non-food consumption – monthly	13,640.41	17,087.79	4,841
HH total consumption – monthly	42,365.40	42,080.43	4,841
Food expenditure share (FES %)	65.35	24.38	4,841
Per capita food consumption – monthly	5,817.85	6,855.32	4,841
Per capita non-food consumption – monthly	2,603.71	3,319.96	4,841
Per capita total consumption – monthly	8,498.57	8,996.93	4,841

Note: Values are calculated in FCFA and winsorized at the 2nd and 98th percentiles.

Income-generating Activities

Table 6 presents the summary statistics for agricultural, wage, and non-agricultural activities. Panel A shows that the majority of households in Mali were engaged in growing crops during the main agricultural season: 64 percent of households reported growing crops from May until October, and 22 percent of households reported growing crops in the off-season. This could mean that a shock happening in the May–October season could affect agricultural output of many more households. Among these households who grow crops, the average revenue from crop sales was FCFA 39,448.17. Further, 32 percent of households reported rearing livestock, with an average livestock count of 11.4 animals or 1.7 average tropical livestock units (TLU).[18]

Panel B shows that wage employment, which is considered in many contexts as a more stable source of income, is rare in the sample. Only 19 percent of household heads and, on average, 12 percent of all household adults, were involved in some wage employment in the 12 months prior to the baseline survey. Among those household heads who were employed in wage jobs, about 37 percent were employed in the agricultural sector, while 63 percent were employed in the non-agricultural sector.

Panel C shows that non-agricultural businesses were not very prevalent either. Ownership of non-farm household businesses is comparable with wage employment rates in Mali. About 18 percent of households report operating a non-farm business. Among them, the average profit reported per month is FCFA 27,287.

[18] The TLU is used to convert livestock to a single unit so different species from different sizes can be described by a single unit. The exchange ratios are as follows: pigs 0.2, chickens 0.01, cows 0.7, goats 0.1, and sheep 0.1.

Table 6: Income-generating activities in Mali

	Mean	SD	N
Panel A: Agriculture and livestock			
% HHs growing crops in main agri season	64.00	48.01	4,841
% HHs growing crops in off-season agri	21.67	41.20	4,841
HH revenue from crops sales (annual)	39,448.17	80,327.47	3,222
% HHs rearing livestock	32.45	46.82	4,801
Livestock count	11.47	11.65	1,558
Livestock count (TLU)	1.71	2.30	1,558
Profit from livestock and products (last 6 months)	7,656.43	19,539.70	1,558
Panel B: Wage employment			
% of HHs with any wage employment	22.39	41.69	4,841
% of adults employed in the HH	12.07	25.46	4,841
Per capita HH wage income (monthly)	13,318.25	22,395.17	1,084
% of HH head employed in the last 12 months	19.15	39.35	4,809
% of HH head employed in agri job	37.23	48.37	916
% of HH head employed in non-agri job	62.77	48.37	916
Number of months worked in the last 12 months	6.57	3.46	883
Panel C: Business			
% HH owns a business	17.52	38.02	4,841
Number of businesses	1.45	1.29	848
Profit from business (monthly)	27,287.16	36,708.12	798
Type of business – agri (%)	26.42	44.11	848
Type of business – non-agri (%)	64.03	48.02	848
Number of months worked in HH business	7.09	3.69	848

Note: Profits, revenue, per capita wage income are expressed in FCFA and winsorized at the 2nd and 98th percentiles.

Shocks

To explore how food insecurity and poverty are affected by shocks, such as climatic shocks, respondents were asked whether their household had been negatively affected by a list of 19 predefined shocks in the previous 12 months. As the survey was conducted between January and March 2021, the households will mainly be reporting on shocks that happened in 2020.

Table 7 shows that households in Mali faced 2.3 shocks on average. The three most common stocks included floods (38 percent of households), high food prices (experienced by 30 percent of households), and drought/irregular rain (experienced by 27 percent of households).

Table 7: Shocks in Mali

	Mean	SD	N
Number of shocks experienced	2.28	2.25	4,841
Drought/irregular rain	27.47	44.64	4,841
Floods	37.60	48.44	4,841
High rate of crop diseases	22.02	41.44	3,415
High rate of animal diseases	13.56	34.24	3,415
Major drop in prices of agricultural products	13.26	33.92	4,841
High prices of agricultural inputs	23.86	42.63	4,841
High prices of food	30.24	45.94	4,841
Serious illness or accident of a member of the household	9.05	28.69	4,841
Death of a member of the household	6.24	24.19	3,415
Divorce, separation	2.14	14.47	3,415
Religious conflict	3.55	18.51	4,841
Ethnic conflict	21.38	41.00	4,841
Significant loss of non-farm household income	7.13	25.73	4,841
Other	23.07	42.13	4,841

Coping Strategies

A coping strategies module was used to understand how households cope when facing important shocks. For example, households may resort to a wide range of costly or negative coping strategies when exposed to extreme shocks. These coping strategies could make them further vulnerable to future shocks or stressors. In the baseline survey, we asked for coping strategies that someone in the household resorted to during the past 12 months when experiencing shocks (from a predefined list).

The most commonly used strategies were reducing food consumption (employed by 29 percent of households) and selling livestock (employed by 13 percent of households) (Table 8). Reducing food consumption could affect the nutritional status of the household, in particular that of young children. This could subsequently lead to longer-term implications in terms of educational attainment and income status. Similarly, selling livestock, which is one of the income sources, could leave the households poorer in the long term and hence more vulnerable. Additional analysis through subsequent follow-up surveys will be required to understand how resilience programmes can provide support in a way that reduces negative coping strategies that put households at risk in the long term.

Table 8: Coping strategies in Mali

	Mean	SD	N
Number of coping strategies used	0.88	1.41	4,841
Stress coping strategies			
% HHs spend savings	10.81	31.05	4,570
% HHs sell livestock	13.06	33.70	4,609
% HHs sell food stocks	9.69	29.59	4,611
% HHs borrowed money	2.48	15.55	4,841
Crisis coping strategies			
% HHs withdraw children from school	6.82	25.21	4,618
% HHs reduce health/education spending	11.51	31.92	4,587
% HHs consumed seed stocks that were to be saved for next season	1.22	10.97	4,841
Emergency coping strategies			
% HHs sold a house or land	0.00	0.00	4,841
% HHs begged	0.17	4.06	4,841
% HHs migrated	0.08	2.87	4,841
Miscellaneous coping strategies			
% HHs sold productive assets or means of transport	0.74	8.59	4,841
% HHs reduced food consumption (quantity/meal; of meals/day)	28.51	45.15	4,630
% HHs purchased food on credit or borrowed food	0.89	9.38	4,841
% HHs used remittances	0.08	2.87	4,841
% HHs sold other household assets/goods	0.33	5.74	4,841
% HHs reduced non-food expenses	0.52	7.17	4,841
% HHs where members took on additional activities	0.89	9.38	4,841
% HHs received help from relatives or friends	0.52	7.17	4,841
% HHs received aid from government	0.00	0.00	4,841
% HHs received aid from NGO	0.12	3.52	4,841
% HHs turned to God	2.60	15.92	4,841
% HHs used other coping strategies	0.76	8.71	4,841
Livelihood-based coping strategy category			
% HHs used stress coping strategy	21.52	41.10	4,841
% HHs used crisis coping strategy	13.57	34.25	4,841
% HHs used emergency coping strategy	0.25	4.97	4,841

Note: Households were asked about 22 coping strategies. Reduction in food consumption, spending savings, selling livestock, selling food stock, withdrawing children from school, reducing health/education expenditure were asked about explicitly; the remaining strategies were part of a longer list that households could self-report. Several strategies from the self-reported group were included in the Livelihood Coping Strategy Index (LCSI) based on Consolidated Approach for

Reporting Indicators of Food Security (CARI) guidelines, in order to consider an even number of strategies from each category.

Financial Outcomes

A household's financial activity can affect its capacity to manage risk and shocks. Respondents were asked about their household's current savings levels, the number of loans they have taken, their current outstanding debt, and transfers received and sent in the past 12 months.

Table 9 shows households' financial activity in the past 12 months. Ten percent of households reported using a saving instrument, 10 percent of households applied for a loan, and 2 percent received a transfer from a family member in the past year.

Table 9: Financial outcomes in Mali

	Mean	SD	N
% of HHs used any savings mechanism	9.77	29.69	4,841
Total savings	967.19	4,292.10	4,841
% of HHs applied for a loan	9.85	29.81	4,841
Amount borrowed	4,019.35	16,565.15	4,820
% of HHs received financial and non financial-transfers	1.92	13.73	4,841
Total transfers received	4,731.51	16,562.78	4,841
Amount transferred to family	25,685.74	46,034.60	178
% HH received remittances (from HH member)	59.66	49.26	119

Note: Values are calculated in FCFA and winsorized at the 2nd and 98th percentiles.

3.2.4. Other Outcomes of Interest

Financial Support

We build a financial support index that assesses whether respondents can obtain funds in their community. This is an indication of the social support that the households can count on in the event of a shock. It consists of questions that ask whether respondents can raise funds from other people within their community, the probability of raising FCFA 30,000 over the next month, and if they can count on the village to help in case of difficulties. These responses are standardized into a singular index using a Z-score that constitutes the financial support index.

As shown in Table 10, we find the average number of people a household head could ask for money to be around three. However, the standard deviation is high, meaning that many households are far from this number. Thirty-seven percent of households say that they could raise FCFA 30,000 over the next month in case of need.

Table 10: Financial support in Mali

	Mean	SD	N
Number of people you could ask for money	3.27	4.82	4,249
No. of siblings that you can ask for money	1.15	1.48	3,600
No. of family members that you can ask for money	0.92	1.45	3,723
No. of friends that you can ask for money	0.89	1.46	3,646
No. of other community members that you can ask for money	0.82	2.48	3,792
Probability of raising funds	0.37	0.48	4,841
Financial support index (FZ-score)	-0.02	0.98	4,841

Time Use

This section describes the types of activities performed by the household heads at different times on the last day before the survey. Table 11 shows that on the last day before the survey, from 6am to 7pm, most heads of households engaged in work-related activities. Between 7pm and 10pm, 45 percent stated that they engaged in leisure activities, and after 10pm, 81 percent of respondents rested.

Table 11: Time use in Mali

	Mean	SD	N
Panel A: Activities at sunrise (6am)			
Work	48.96	49.99	4,841
Chore	16.69	37.29	4,841
Leisure	3.84	19.22	4,841
Rest	13.49	34.16	4,841
Panel B: Activities in the morning (9am)			
Work	62.71	48.36	4,841
Chore	17.83	38.28	4,841
Leisure	3.88	19.32	4,841
Rest	0.97	9.81	4,841
Panel C: Activities in the afternoon (3pm)			
Work	49.68	50.00	4,841
Chore	18.24	38.62	4,841
Leisure	11.65	32.09	4,841
Rest	4.42	20.56	4,841
Panel D: Activities in the evening (7pm)			
Work	14.91	35.63	4,841
Chore	13.96	34.66	4,841
Leisure	44.56	49.71	4,841
Rest	8.04	27.19	4,841
Panel E: Activities at night (10pm)			
Work	3.14	17.44	4,841
Chore	1.98	13.94	4,841
Leisure	4.94	21.67	4,841
Rest	80.89	39.32	4,841

Note: Activities classified as work include household agricultural activities, non-agricultural self-employed jobs, paid agricultural work, paid non-agricultural work, work on WFP programmes, and other unpaid work. Chores include childcare, collecting firewood or water, chopping, cooking, house-keeping, personal hygiene, and transportation. Leisure includes eating, playing sports, other leisure activities, visiting friends/family, and religious services. Rest includes sleeping. The values reported in the table are in percentages.

Psychosocial

To analyse the psychological well-being of survey respondents, we look at the following indices:[19]

- Life satisfaction today and two years ago (1–10), where a higher score indicates greater life satisfaction and vice versa.
- Subjective social status (1–10). Respondents were asked to think that at the top of the scale were people with more means and more education and at the bottom were people with the lowest status, where a higher score reflects greater subjective social status.
- Future expectations (3–30). This index is constructed from the total score of the three questions: *"Think of the youngest child of the household. What will be his social position when he turns 30? In two years, do you think your position will go up, down, or stay the same? In two years, do you think your satisfaction with life will go up, down, or stay the same?"* A higher future expectation score indicates better expected future outcomes.
- Less depression (0–70). The CES-D-10 is a ten-item Likert scale questionnaire assessing depressive symptoms. Higher scores suggest greater severity of symptoms (risk of depression).
- Less disability (0–28). This index is constructed from the four questions of the SRQ-20[20]and is designed to detect psychological distress. Each answer can take the value of 0 to 7.
- Cohen's index (0–40). This index is a measure of the degree to which situations in the respondent's life are perceived as stressful. It's composed of a set of ten questions. The higher the score, the greater the respondent's experience of stress.
- Self-efficacy (8–32). This index reflects respondents' confidence in their ability to exercise control over their own behaviour and their environment and is drawn from a set of eight questions.
- Satisfaction with life (5–25). This index evaluates respondent satisfaction as a whole and consists of a set of five statements. A higher score suggests greater life satisfaction.

[19] For a detailed discussion of the construction of these psychosocial indices in the Sahel context, see: Bossuroy, Thomas; Goldstein, Markus; Karlan, Dean; Kazianga, Harounan; Pariente, William; Premand, Patrick; Thomas, Catherine; Udry, Christopher; Vaillant, Julia; & Wright, Kelsey. 2021. *Pathways Out of Extreme Poverty: Tackling Psychosocial and Capital Constraints with a Multi-faceted Social Protection Program in Niger*. Policy Research Working Paper; No. 9562. Washington, DC, World Bank.

[20] Harding, T.W., et al. (1980) Mental Disorders in Primary Health Care: A Study of Their Frequency and Diagnosis in Four Developing Countries. Psychological Medicine, 10, 231-241.

- Female locus of control (0–10). This index is used to see how strongly female-headed households believe they have control over certain situations and experiences. A higher locus of control score implies a feeling of less control over one's environment.

Note that the level of these indices is not necessarily meaningful in absolute terms per se. For this reason, we do not comment on the baseline levels of depression, stress, or self-efficacy. However, the study will be able to document whether the programme impacts any of these indices over time.

As shown in Table 12, we find that the average life satisfaction today is 4 for the household head, where 1 indicates low life satisfaction and 10 indicates high life satisfaction. Life satisfaction two years ago has a very similar average, suggesting that life satisfaction among household heads is relatively stable, on average.[21] In a similar way, satisfaction with life averaged around 12 out of 25, and the self-assessed social status averaged less than 4. Respondents do not seem to think that the future will be brighter, as the future expectations index averaged 14.5 out of 30.

[21] The life satisfaction today index is calculated from a Cantril ladder. The enumerators explain to respondents that, to answer, they should think that the top of the ladder represents the best possible life for the respondents. The bottom of the ladder represents the worst possible life. The same goes for life satisfaction two years ago, where we ask at which step of the ladder you were two years ago.

Table 12: Psychosocial indices in Mali

	Mean	SD	N
Panel A: Household head			
Life satisfaction today (0–10)	4.06	1.71	4,841
Life satisfaction two years ago (0–10)	4.65	2.07	4,841
Subjective social status (0–10)	3.76	1.63	4,841
Future expectations (0–10)	14.56	5.45	4,841
Less depression (0–70)	24.97	11.05	4,787
Less disability (0–28)	8.42	5.81	4,778
Cohen's stress index (0–40)	19.06	4.45	4,805
Self-efficacy (0–32)	21.60	5.10	4,813
Satisfaction with life scale (0–30)	12.11	4.82	4,824
Panel B: Primary female decision-maker			
Female locus of control (0–10)	5.46	1.54	94

Note: Locus of control was not collected from male heads of households. A higher locus of control score implies a feeling of less control over one's environment. Stress scores were calculated using the Perceived Stress Scale)[22]. Depression scores were calculated using the standard Patient Health Questionnaire (PHQ-9). Life satisfaction scores were calculated using the Satisfaction With Life Scale[23]

[22] Cohen, S., Kamarck, T. and Mermelstein, R. (1983) A Global Measure of Perceived Stress. Journal of Health and Social Behavior, 24, 385-396.

[23] Diener, E., Emmons, R. A., Larsen, R. J., & Griffin, S. (1985). The satisfaction with life scale. Journal of Personality Assessment, 46, 71-75.

Programme Participation

Table 13 reports the proportion of households that benefited from various programmes. In the previous 12 months, the most common support households benefited from related to health, including donations of treated bednets (30 percent of households) and vaccination (27 percent of households), as well as donations of cereals (19 percent of households).

Table 13: Programme participation in Mali

	Mean	SD	N
Donation of cereals	19.09	39.30	4,841
Donation of cereal flour	4.69	21.14	4,841
School feeding	1.86	13.51	4,841
Food for work	1.12	10.50	4,841
Nutritional supplement for malnourished children	8.32	27.63	4,841
Cash for work	0.64	7.98	4,841
Government cash transfers	0.43	6.57	4,841
Cash transfers from other partners (NGOs, etc)	1.76	13.14	4,841
Free care for children under 5 years old	3.53	18.46	4,841
Donation of treated bednet	30.12	45.88	4,841
Public works paid for with agricultural inputs	0.62	7.85	4,841
Schooling support	1.51	12.19	4,841
Pregnancy care programme	5.99	23.73	4,841
Vaccination	27.33	44.57	4,841
Annual medical check-up	4.48	20.69	4,841
Medication	10.87	31.12	4,841
Medical treatment	3.55	18.51	4,841

Note: Households were asked about 17 safety nets received over the previous 12 months.

4. Targeting of COVID Safety Net

In Mali, the resilience interventions are implemented with a safety nets programme operating in the background. Both treatment and comparison villages receive safety net support to help cope with the COVID shocks, as discussed in subsection 2.1. Eligibility for safety nets is based on a food consumption score obtained from the RSU survey. We therefore differentiate households eligible for safety nets from those not eligible for safety nets. This is helpful because it provides information on the targeting of the COVID safety net, but also because the interpretation of our impact evaluation results will differ between the two groups. It also allows us to highlight the baseline differences between households that are more or less food-insecure at baseline, which is relevant before analysing their future resilience through the dynamics of food security over time.

Specifically, we compare households that have a food consumption score below or equal to the third decile of the commune-level food consumption score, with those that have a food consumption score above the third decile. To simplify, we classify the former "very poor", and the latter "not very poor". It is important to note that this is not a formal definition of poverty, which would be based on absolute values rather than relative rankings, and which would be defined using more comprehensive measures than just a food consumption score indicator. Table 14 shows the number of households considered "very poor" and "not very poor" by commune based on this definition. By construction, 30 percent of the households are classified as very poor based on this definition in each commune.

Table 14: Number of households from RSU classified as very poor and not very poor, by commune

Commune	Not very poor	Very poor	Total
NONSSOMBOUGOU	419	181	600
DANDOLI	721	338	1,059
DOUROU	608	264	872
KENDIE	1,263	549	1,812
SOROLY	685	322	1,007
WADOUBA	965	414	1,379
ALAFIA	540	247	787
SERERE	384	178	562
SOBOUNDOU	1,126	495	1,621
SOUMPI	78	35	113
GAO	5,775	2,475	8,250
GABERO	727	326	1,053
GOUNZOUREYE	1,459	634	2,093
ANSONGO	2,266	980	3,246
Total	17,016	7,438	24,454

Table 15 shows the distribution of very poor and not very poor households in the study sample. Some communes present a higher share of very poor (Soboundou and

Gounzoureye) and a lower share of very poor (Dourou, Wadouba, and Soroly), but, on average, the sample includes 71 percent of not very poor and 29 percent of very poor households, as the general population.

Table 15: Number of baseline households classified as very poor and not very poor, by commune

Commune	Not very poor	Very poor	Total
NONSSOMBOUGOU	358 (71%)	145 (29%)	503
DANDOLI	247 (70%)	104 (30%)	351
DOUROU	268 (86%)	44 (14%)	312
KENDIE	330 (75%)	109 (25%)	439
SOROLY	212 (77%)	64 (23%)	276
WADOUBA	359 (77%)	106 (23%)	465
ALAFIA	122 (68%)	58 (32%)	180
SERERE	162 (67%)	78 (33%)	240
SOBOUNDOU	160 (63%)	97 (37%)	257
SOUMPI	77 (69%)	35 (31%)	112
GAO	215 (72%)	85 (28%)	300
GABERO	218 (71%)	89 (29%)	307
GOUNZOUREYE	302 (59%)	214 (41%)	516
ANSONGO	410 (70%)	173 (30%)	583
Total	3,440 (71%)	1,401 (29%)	4,841

In terms of household demographics, as shown in Table 39, very poor households have a higher share of female-headed households, smaller household sizes, and own less farm and non-farm assets. Very poor households have less livestock and grow fewer crops during the main and secondary agricultural season, and therefore have less income from crop sales than the not very poor households (Table 40).

Both very poor and not very poor households suffered about the same number of shocks (2.5) in the last 12 months, with floods, droughts, and high food prices being the most common (Table 43). The shocks that affected very poor and not very poor households differently were: (1) crop diseases, which were reported more frequently by very poor

households; and (2) ethnic and religious conflicts, which were reported more frequently by the not very poor households. Very poor households report using a similar number of coping strategies, use fewer saving mechanisms, have less savings, and have a fewer number of people from whom they could ask for money (Table 43, Table 24, and Table 46).

We also find that very poor households exhibit worse food security outcomes during the baseline data collection (Table 41). Very poor households have significantly lower FCS, HDDS, and exhibit higher scores on the FIES severe food insecurity index. The not very poor households report higher scores on present and future life satisfaction and have higher expectations for the future (Table 47).

5. Lessons and Conclusions

5.1. Challenges

The initial phase of the implementation of the impact evaluation design and the baseline survey have been completed successfully. However, there are a few aspects of the process that need to be considered while interpreting the data from baseline, follow-up surveys and the endline. First, household food security status is expected to vary across seasons, and as they encounter shocks. Therefore, the timing of the support provided through each activity (e.g., FFA, nutrition, etc) will be important. Second, there are activities that are implemented at the commune level (e.g., school feeding, some of the larger assets built through FFA), and it is likely that households from both comparison and treatment group benefit from these activities. High-frequency and endline data will collect information on programme participation to understand which households benefitted from which intervention and take that into consideration in the analysis. It is also not clear if all assets constructed during the impact evaluation timeframe will be fully functional. Some assets may take three to five years to be productive and beneficial to the targeted population. The impact evaluation team will document the location of these activities as much as possible. Finally, the impact evaluation study and the baseline data collection are based on the guidance that every household in the treatment villages is eligible to participate in FFA activities. Any changes to this targeting approach will have implications on analysis of the results. The impact evaluation team is working with the country office to have precise monitoring data on which households or villages were targeted and received benefits.

5.2. Conclusion

This baseline report presents the descriptive analysis of the pre-programme situation and serves as a point of reference for the impact evaluation. The report describes deprived and vulnerable communities, highlighting the context in which the WFP's resilience programme will seek to strengthen resilience. A large percentage of the households studied have high levels of food insecurity, low levels of food consumption, and diets lacking nutritional diversity. Most households are subsistence farmers who mostly grow crops during the main agricultural season. The most common shocks were droughts, floods, high food prices, and crop diseases. But most households are also exposed to multiple shocks: households in the sample experienced an average of 2.5 per year.

This report also verifies that the main outcomes of interest for the impact evaluation (such as food consumption, and food or nutrition security) are balanced between treatment and comparison sites at baseline, and thus documents that the randomization process was

successful in generating a valid comparison group to estimate counterfactual outcomes over time. This is a necessary step to ensure the impact evaluation will deliver rigorous estimates of the short-run and medium-run impacts of FFA and the resilience package, including on the dynamics of welfare and food security over time.

6. Annex

Table 16: List of villages and treatment status in Mali

Region	Cercle	Commune	Village	Randomization status
GAO	ANSONGO	ANSONGO	Allounga	CONTROL
GAO	ANSONGO	ANSONGO	Bakary-koira	TREATMENT
GAO	ANSONGO	ANSONGO	Barbi	TREATMENT
GAO	ANSONGO	ANSONGO	Bartiekoba	CONTROL
GAO	ANSONGO	ANSONGO	Bazi-gourma	CONTROL
GAO	ANSONGO	ANSONGO	Bazi-haoussa	TREATMENT
GAO	ANSONGO	ANSONGO	Boum	TREATMENT
GAO	ANSONGO	ANSONGO	Eguefilnin	CONTROL
GAO	ANSONGO	ANSONGO	Seyna	CONTROL
GAO	ANSONGO	ANSONGO	Seyna-ile	TREATMENT
GAO	GAO	GABERO	Dongame	TREATMENT
GAO	GAO	GABERO	Hamidadji Ou Ondibadj	TREATMENT
GAO	GAO	GABERO	Haoussa-foulane	CONTROL
GAO	GAO	GABERO	Kardjime	TREATMENT
GAO	GAO	GABERO	Tianame	CONTROL
GAO	GAO	GAO	1e Quartier (cm)	CONTROL
GAO	GAO	GAO	4e Quartier Ou Aldjanabaradja	TREATMENT
GAO	GAO	GAO	5e Quartier Ou Dioula	TREATMENT
GAO	GAO	GAO	7e Quartier Ou Sossokoira	TREATMENT
GAO	GAO	GAO	Gao	CONTROL
GAO	GAO	GOUNZOUREYE	Bagoundie 2	TREATMENT
GAO	GAO	GOUNZOUREYE	Bilalikoira	CONTROL
GAO	GAO	GOUNZOUREYE	Boulgoundie	CONTROL
GAO	GAO	GOUNZOUREYE	Chambeye	CONTROL
GAO	GAO	GOUNZOUREYE	Goundambere	TREATMENT
GAO	GAO	GOUNZOUREYE	Kadji	TREATMENT
GAO	GAO	GOUNZOUREYE	Tandagari	CONTROL
GAO	GAO	GOUNZOUREYE	Toutia	CONTROL
GAO	GAO	GOUNZOUREYE	Wabaria	TREATMENT
KOULIKORO	KOLOKANI	NONSSOMBOUGOU	Bafebougou	TREATMENT
KOULIKORO	KOLOKANI	NONSSOMBOUGOU	Dossebougou (Nonssombougou)	TREATMENT

Continued

Region	Cercle	Commune	Village	Randomization status
KOULIKORO	KOLOKANI	NONSSOMBOUGOU	Gounna	CONTROL
KOULIKORO	KOLOKANI	NONSSOMBOUGOU	Kamaka	CONTROL
KOULIKORO	KOLOKANI	NONSSOMBOUGOU	Kaubabougou Ou Bimbab	CONTROL
KOULIKORO	KOLOKANI	NONSSOMBOUGOU	Kenekolo	TREATMENT
KOULIKORO	KOLOKANI	NONSSOMBOUGOU	Kodialadan	CONTROL
KOULIKORO	KOLOKANI	NONSSOMBOUGOU	Markala	TREATMENT
KOULIKORO	KOLOKANI	NONSSOMBOUGOU	Mpabougou	CONTROL
KOULIKORO	KOLOKANI	NONSSOMBOUGOU	Neguessambougou	CONTROL
KOULIKORO	KOLOKANI	NONSSOMBOUGOU	Ngolobabougou	CONTROL
KOULIKORO	KOLOKANI	NONSSOMBOUGOU	Pintierebougou	TREATMENT
KOULIKORO	KOLOKANI	NONSSOMBOUGOU	Tlokobougou	TREATMENT
KOULIKORO	KOLOKANI	NONSSOMBOUGOU	Wessamabougou	TREATMENT
MOPTI	BANDIAGARA	DANDOLI	Doubagou	CONTROL
MOPTI	BANDIAGARA	DANDOLI	Gologou	CONTROL
MOPTI	BANDIAGARA	DANDOLI	Golokou	TREATMENT
MOPTI	BANDIAGARA	DANDOLI	Kolontanga	TREATMENT
MOPTI	BANDIAGARA	DANDOLI	Lougourougoumbo	TREATMENT
MOPTI	BANDIAGARA	DANDOLI	Ouolo-ouolo	CONTROL
MOPTI	BANDIAGARA	DANDOLI	Tognon	TREATMENT
MOPTI	BANDIAGARA	DOUROU	Idiely Do	TREATMENT
MOPTI	BANDIAGARA	DOUROU	Idiely Gotanga	TREATMENT
MOPTI	BANDIAGARA	DOUROU	Niembere	CONTROL
MOPTI	BANDIAGARA	DOUROU	Nombori	CONTROL
MOPTI	BANDIAGARA	DOUROU	Sassagou (Sassagou)	CONTROL
MOPTI	BANDIAGARA	KENDIE	Dassi	TREATMENT
MOPTI	BANDIAGARA	KENDIE	Dongossori	CONTROL
MOPTI	BANDIAGARA	KENDIE	Dounaly	CONTROL

Continued

Region	Cercle	Commune	Village	Randomization status
GAO MOPTI	BANDIAGARA	KENDIE	Endeguem (Kendie)	TREATMENT
MOPTI	BANDIAGARA	KENDIE	Ogobo	TREATMENT
MOPTI	BANDIAGARA	KENDIE	Pelleny	CONTROL
MOPTI	BANDIAGARA	KENDIE	Sogodougou	CONTROL
MOPTI	BANDIAGARA	SOROLY	Binoun	TREATMENT
MOPTI	BANDIAGARA	SOROLY	Dologou (Soroly)	TREATMENT
MOPTI	BANDIAGARA	SOROLY	Goulou	CONTROL
MOPTI	BANDIAGARA	SOROLY	Tintimbolo	CONTROL
MOPTI	BANDIAGARA	SOROLY	Tonou (Soroly)	TREATMENT
MOPTI	BANDIAGARA	SOROLY	Wagado 2	CONTROL
MOPTI	BANDIAGARA	SOROLY	Wagado 1	CONTROL
MOPTI	BANDIAGARA	WADOUBA	Bendjely Birikombo	TREATMENT
MOPTI	BANDIAGARA	WADOUBA	Guemene	CONTROL
MOPTI	BANDIAGARA	WADOUBA	Koimegou	CONTROL
MOPTI	BANDIAGARA	WADOUBA	Komo Do	CONTROL
MOPTI	BANDIAGARA	WADOUBA	Komo Leye	TREATMENT
MOPTI	BANDIAGARA	WADOUBA	Koundougou (Wadouba)	TREATMENT
MOPTI	BANDIAGARA	WADOUBA	Sal-sombougou	CONTROL
MOPTI	BANDIAGARA	WADOUBA	Sougoudomou	TREATMENT
TOMBOUCTOU	TOMBOUCTOU	ALAFIA	Baifendou	TREATMENT
TOMBOUCTOU	TOMBOUCTOU	ALAFIA	Hondou Bomo Koina	CONTROL
TOMBOUCTOU	TOMBOUCTOU	ALAFIA	Kouloutane-haoussa	CONTROL
TOMBOUCTOU	GOURMA-RHAROUS	SERERE	Boranda	CONTROL
TOMBOUCTOU	GOURMA-RHAROUS	SERERE	Goungoubery	TREATMENT
TOMBOUCTOU	GOURMA-RHAROUS	SERERE	Mamadou-koira	CONTROL
TOMBOUCTOU	GOURMA-RHAROUS	SERERE	Waikaratane Boranda	TREATMENT
TOMBOUCTOU	NIAFUNKE	SOBOUNDOU	Andioum Ouro	TREATMENT
TOMBOUCTOU	NIAFUNKE	SOBOUNDOU	Barema Daga	TREATMENT
TOMBOUCTOU	NIAFUNKE	SOBOUNDOU	Goundam-touskel	TREATMENT
TOMBOUCTOU	NIAFUNKE	SOBOUNDOU	Niafunke	CONTROL
TOMBOUCTOU	NIAFUNKE	SOBOUNDOU	Tiangara	CONTROL
TOMBOUCTOU	NIAFUNKE	SOUMPI	Dari	CONTROL
TOMBOUCTOU	NIAFUNKE	SOUMPI	Kourba	TREATMENT

6.1. Summary Statistics by Treatment Status in Mali

Table 17: HH demographics by treatment in Mali

	Mean treatment	SD treatment	Mean control	SD control	Mean difference	t-test
Panel A: Head of household						
% female HH head	13.70	34.39	13.31	33.97	0.39	(0.40)
% HH head with any primary education	12.81	33.43	10.91	31.18	1.90*	(2.04)
Panel B: Household						
HH size	5.87	3.46	6.06	4.03	-0.19	(-1.78)
% HH has school-age children enrolled in school	22.19	34.20	22.81	35.16	-0.62	(-0.55)
Total HH assets owned by HH	1.91	1.95	1.79	1.84	0.12*	(2.28)
Total farm assets owned by HH	0.74	1.46	0.74	1.38	-0.01	(-0.17)
% HHs have a member that migrated	7.12	25.72	7.91	26.99	-0.79	(-1.03)
Observations	2,519		2,322		4,841	

Note: *=p-value<0.1; **=p-value<0.05; ***=p-value<0.01

Table 18: Income-generating activities by treatment in Mali

	Mean treatment	SD treatment	Mean control	SD control	Mean difference	t-test
Panel A: Agriculture and livestock						
% HHs growing crops in main agri season	63.99	48.01	64.00	48.01	-0.00	(-0.00)
% HHs growing crops in off-season agri	24.30	42.90	18.82	39.10	5.48***	(4.65)
HH revenue from crops sales (annual)	43,870.29	85,100.55	34,666.11	74,556.82	9,204.18**	(3.27)
% HHs rearing livestock	35.15	47.75	29.53	45.63	5.62***	(4.17)
Livestock count	11.88	12.16	10.95	10.94	0.93	(1.58)
Livestock count (TLU)	1.72	2.32	1.70	2.26	0.01	(0.10)
Profit from livestock and products (last 6 months)	8,130.35	20,158.38	7,046.11	18,709.87	1,084.24	(1.10)
Panel B: Wage employment						
% of HHs with any wage employment	22.51	41.77	22.27	41.61	0.24	(0.20)
% of adults employed in the HH	11.95	25.15	12.20	25.80	-0.25	(-0.34)
Per capita HH wage income (monthly)	13,149.65	22,526.93	13,503.15	22,270.12	-353.50	(-0.26)
% of HH head employed in the last 12 months	19.40	39.55	18.88	39.14	0.52	(0.46)
% of HH head employed in agri job	42.36	49.46	31.48	46.50	10.87***	(3.43)
% of HH head employed in non-agri job	57.64	49.46	68.52	46.50	-10.87***	(-3.43)
Number of months worked in the last 12 months	6.73	3.48	6.39	3.43	0.34	(1.45)
Panel C: Non-agricultural business						
% HH owns a business	17.86	38.31	17.14	37.69	0.72	(0.66)
Number of businesses	1.35	1.06	1.56	1.50	-0.21*	(-2.37)
Profit from business (monthly)	27,342.48	39,582.91	27,224.13	33,183.17	118.34	(0.05)
Type of business – agri (%)	24.67	43.16	28.39	45.15	-3.73	(-1.22)
Type of business – non-agri (%)	64.00	48.05	64.07	48.04	-0.07	(-0.02)
Number of months worked in HH business	6.91	3.78	7.29	3.59	-0.38	(-1.48)
Observations	2,519		2,322		4,841	

Note: *=p-value<0.1; **=p-value<0.05; ***=p-value<0.01

Table 19: Food security by treatment in Mali

	Mean treatment	SD treatment	Mean control	SD control	Mean difference	t-test
Panel A: Food consumption score						
Food consumption score (FCS)	40.05	21.68	40.72	22.27	-0.67	(-1.06)
% FCS poor (0–28)	36.05	48.02	35.70	47.92	0.34	(0.25)
% FCS borderline (28.5–42)	19.69	39.77	18.09	38.50	1.60	(1.42)
% FCS acceptable (above 42)	44.26	49.68	46.21	49.87	-1.95	(-1.36)
% never consumed	44.70	49.73	46.25	49.87	-1.55	(-1.08)
Vitamin-A-rich foods						
% consumed sometimes	38.11	48.58	35.57	47.88	2.54	(1.83)
% consumed at least daily	17.19	37.74	18.17	38.57	-0.98	(-0.90)
% never consumed	23.90	42.65	21.27	40.93	2.62*	(2.18)
Protein-rich foods						
% consumed sometimes	43.07	49.53	42.89	49.50	0.18	(0.13)
% consumed at least daily	33.03	47.04	35.83	47.96	-2.80*	(-2.05)
% never consumed	38.90	48.76	36.82	48.24	2.08	(1.49)
Heme-iron-rich foods						
% consumed sometimes	47.80	49.96	47.42	49.94	0.38	(0.26)
% consumed at least daily	13.30	33.96	15.76	36.45	-2.46*	(-2.43)
Household Dietary Diversity Score (HDDS)	4.08	1.71	4.11	1.70	-0.03	(-0.57)
Panel B: Dietary diversity						
% HHs low dietary diversity (0–4.5)	59.94	49.01	57.28	49.48	2.67	(1.88)
% HHs medium dietary diversity (4.5–6)	30.65	46.11	34.45	47.53	-3.81**	(-2.82)
% HHs good dietary diversity (above 6)	9.41	29.20	8.27	27.55	1.14	(1.40)
% minimum dietary diversity for women (MDD-W)	10.02	30.06	9.00	28.64	1.02	(0.55)
% minimum acceptable diet (breastfed children)	0.00	0.00	0.00	0.00	0.00	(.)
% minimum acceptable diet (non-breastfed children)	9.52	29.71	9.38	29.61	0.15	(0.02)
Panel C: Subjective food insecurity						
Food Insecurity Experience Scale (FIES)	4.15	3.43	4.19	3.40	-0.03	(-0.33)
% HHs FIES food secure (0–3)	47.76	49.96	46.90	49.91	0.86	(0.60)
% HHs FIES moderate food insecurity (4–6)	11.08	31.39	12.40	32.97	-1.33	(-1.43)
% HHs FIES severe food insecurity (7–8)	41.17	49.22	40.70	49.14	0.47	(0.33)
Observations	2,519		2,322		4,841	

Note: *=p-value<0.1; **=p-value<0.05; ***=p-value<0.01

Table 20: Consumption by treatment in Mali

	Mean treatment	SD treatment	Mean control	SD control	Mean difference	t-test
HH food consumption – monthly	27,946.62	29,789.32	28,254.64	30,827.32	-308.01	(-0.35)
HH non-food consumption – monthly	13,523.40	16,867.43	13,767.34	17,326.43	-243.94	(-0.50)
HH total consumption – monthly	41,978.94	41,101.44	42,784.65	43,122.31	-805.71	(-0.66)
Food expenditure share (FES %)	64.85	24.58	65.90	24.16	-1.05	(-1.50)
Per capita food consumption – monthly	5,769.77	6,740.19	5,870.01	6,979.16	-100.24	(-0.51)
Per capita non-food consumption – monthly	2,571.16	3,277.41	2,639.03	3,365.86	-67.87	(-0.71)
Per capita total consumption – monthly	8,433.02	8,929.64	8,569.69	9,070.75	-136.67	(-0.53)
Observations	2,519		2,322		4,841	

Note: *=p-value<0.1; **=p-value<0.05; ***=p-value<0.01

Table 21: Psychosocial by treatment in Mali

	Mean treatment	SD treatment	Mean control	SD control	Mean difference	t-test
Panel A: Household head						
Life satisfaction today (0–10)	4.02	1.68	4.09	1.74	-0.07	(-1.48)
Life satisfaction two years ago (0–10)	4.60	2.04	4.70	2.11	-0.10	(-1.61)
Subjective social status (0–10)	3.72	1.60	3.81	1.66	-0.09	(-1.85)
Future expectations (0–10)	14.42	5.38	14.71	5.52	-0.30	(-1.89)
Less depression (0–70)	24.88	11.16	25.06	10.93	-0.18	(-0.56)
Less disability (0–28)	8.47	5.80	8.38	5.83	0.09	(0.54)
Cohen's stress index (0–40)	19.20	4.37	18.92	4.52	0.28*	(2.18)
Self-efficacy (0–32)	21.67	5.05	21.52	5.15	0.15	(1.02)
Satisfaction with life scale (0–30)	12.10	4.82	12.12	4.81	-0.03	(-0.18)
Panel B: Primary female decision-maker						
Female locus of control (0–10)	5.57	1.57	5.35	1.52	0.21	(0.66)
Observations	2,519		2,322		4,841	

Note: *=p-value<0.1; **=p-value<0.05; ***=p-value<0.01

Table 22: Shocks by treatment in Mali

	Mean treatment	SD treatment	Mean control	SD control	Mean difference	t-test
Number of shocks experienced	2.37	2.40	2.17	2.06	0.20**	(3.14)
Drought/irregular rain	29.30	45.52	25.50	43.59	3.80**	(2.97)
Floods	40.93	49.18	33.98	47.37	6.95***	(5.01)
High rate of crop diseases	23.98	42.71	19.83	39.88	4.15**	(2.94)
High rate of animal diseases	16.56	37.18	10.19	30.26	6.36***	(5.51)
Major drop in prices of agricultural products	14.01	34.72	12.45	33.02	1.57	(1.61)
High prices of agricultural inputs	23.82	42.61	23.90	42.66	-0.08	(-0.07)
High prices of food	28.90	45.34	31.70	46.54	-2.80*	(-2.11)
Serious illness or accident of a member of the household	9.13	28.81	8.96	28.56	0.17	(0.21)
Death of a member of the household	6.42	24.52	6.03	23.81	0.39	(0.48)
Divorce, separation	1.88	13.59	2.42	15.38	-0.54	(-1.08)
Religious conflict	4.92	21.64	2.07	14.23	2.86***	(5.46)
Ethnic conflict	18.54	38.87	24.46	43.00	-5.92***	(-5.01)
Significant loss of non-farm household income	8.30	27.59	5.86	23.49	2.44***	(3.32)
Other	24.41	42.97	21.62	41.17	2.80*	(2.31)
Observations	2,519		2,322		4,841	

Note: *=p-value<0.1; **=p-value<0.05; ***=p-value<0.01

Table 23: Coping strategies by treatment in Mali

	Mean treatment	SD treatment	Mean control	SD control	Mean difference	t-test
Number of coping strategies used	0.79	1.37	0.98	1.44	-0.18***	(-4.56)
Stress coping strategies						
% HHs spend savings	10.20	30.28	11.45	31.85	-1.25	(-1.36)
% HHs sell livestock	11.62	32.05	14.61	35.33	-2.99**	(-3.00)
% HHs sell food stocks	8.80	28.34	10.64	30.84	-1.84*	(-2.10)
% HHs borrowed money	1.79	13.25	3.23	17.68	-1.44**	(-3.19)
Crisis coping strategies						
% HHs withdraw children from school	6.73	25.07	6.91	25.37	-0.18	(-0.24)
% HHs reduce health/education spending	10.03	30.05	13.09	33.74	-3.06**	(-3.23)
% HHs consumed seed stocks that were to be saved for next season	1.39	11.71	1.03	10.12	0.36	(1.13)
Emergency coping strategies						
% HHs sold a house or land	0.00	0.00	0.00	0.00	0.00	(.)
% HHs begged	0.08	2.82	0.26	5.08	-0.18	(-1.50)
% HHs migrated	0.12	3.45	0.04	2.08	0.08	(0.94)
Miscellaneous coping strategies						
% HHs sold productive assets or means of transport	0.56	7.44	0.95	9.69	-0.39	(-1.57)
% HHs reduce food consumption (quantity/meal; of meals/day)	26.03	43.89	31.15	46.32	-5.12***	(-3.86)
% HHs purchased food on credit or borrowed food	0.75	8.65	1.03	10.12	-0.28	(-1.03)
% HHs used remittances	0.08	2.82	0.09	2.93	-0.01	(-0.08)
% HHs sold other household assets/goods	0.36	5.97	0.30	5.48	0.06	(0.34)
% HHs reduced non-food expenses	0.71	8.42	0.30	5.48	0.41*	(2.04)
% HHs where members took on additional activities	0.28	5.27	1.55	12.36	-1.27***	(-4.59)
% HHs received help from relatives or friends	0.44	6.60	0.60	7.74	-0.17	(-0.80)
% HHs received aid from government	0.00	0.00	0.00	0.00	0.00	(.)
% HHs received aid from NGO	0.12	3.45	0.13	3.59	-0.01	(-0.10)
% HHs turned to God	2.26	14.87	2.97	16.98	-0.71	(-1.54)
% HHs used other coping strategies	0.91	9.51	0.60	7.74	0.31	(1.25)
Livelihood-based coping strategy category						
% HHs used stress coping strategy	19.33	39.50	23.90	42.66	-4.57***	(-3.86)
% HHs used crisis coping strategy	12.50	33.08	14.73	35.45	-2.22*	(-2.25)
% HHs used emergency coping strategy	0.20	4.45	0.30	5.48	-0.10	(-0.71)
Observations	2,519		2,322		4,841	

Note: *=p-value<0.1; **=p-value<0.05; ***=p-value<0.01

Table 24: Financial outcomes by treatment in Mali

	Mean treatment	SD treatment	Mean control	SD control	Mean difference	t-test
% of HHs used any savings mechanism	9.65	29.53	9.91	29.88	-0.26	(-0.30)
Total savings	967.58	4,257.56	966.77	4,330.18	0.80	(0.01)
% of HHs applied for a loan	10.72	30.94	8.91	28.50	1.80*	(2.11)
Amount borrowed	4,337.75	17,082.20	3,673.38	15,980.88	664.37	(1.40)
% of HHs received financial and non-financial transfers	1.79	13.25	2.07	14.23	-0.28	(-0.71)
Total transfers received	4,503.18	16,086.29	4,979.22	17,064.67	-476.05	(-1.00)
Amount transferred to family	29,619.86	52,791.95	21,477.15	37,343.00	-8,142.708	(1.1806)
% HH received remittances (from HH member)	60.00	49.37	59.26	49.60	0.74	(0.08)
Observations	2,519		2,322		4,841	

Note: *=p-value<0.1; **=p-value<0.05; ***=p-value<0.01

Table 25: Time use by treatment in Mali

	Mean treatment	SD treatment	Mean control	SD control	Mean difference	t-test
Panel A: Activities at sunrise (6am)						
Work	50.06	50.01	47.76	49.96	2.30	(1.60)
Chore	17.75	38.21	15.55	36.24	2.20*	(2.05)
Leisure	4.41	20.53	3.23	17.68	1.18*	(2.14)
Rest	11.71	32.16	15.42	36.12	-3.71***	(-3.76)
Panel B: Activities in the morning (9am)						
Work	60.90	48.81	64.69	47.80	-3.79**	(-2.73)
Chore	19.45	39.59	16.06	36.73	3.39**	(3.09)
Leisure	4.45	20.62	3.27	17.80	1.17*	(2.12)
Rest	1.15	10.67	0.78	8.77	0.38	(1.34)
Panel C: Activities in the afternoon (3pm)						
Work	51.01	50.00	48.23	49.98	2.78	(1.93)
Chore	16.59	37.21	20.03	40.03	-3.43**	(-3.08)
Leisure	11.55	31.97	11.76	32.22	-0.20	(-0.22)
Rest	5.28	22.37	3.49	18.35	1.79**	(3.06)
Panel D: Activities in the evening (7pm)						
Work	15.20	35.91	14.60	35.32	0.60	(0.59)
Chore	14.81	35.52	13.05	33.69	1.76	(1.77)
Leisure	43.11	49.53	46.12	49.86	-3.01*	(-2.11)
Rest	8.54	27.95	7.49	26.33	1.04	(1.34)
Panel E: Activities at night (10pm)						
Work	4.01	19.62	2.20	14.66	1.81***	(3.66)
Chore	2.70	16.21	1.21	10.92	1.49***	(3.79)
Leisure	5.32	22.45	4.52	20.78	0.80	(1.28)
Rest	79.16	40.63	82.77	37.77	-3.62**	(-3.21)
Observations	2,519		2,322		4,841	

*Note: *=p-value<0.1; **=p-value<0.05; ***=p-value<0.01*

Table 26: Programme participation by treatment in Mali

	Mean treatment	SD treatment	Mean control	SD control	Mean difference	t-test
Donation of cereals	17.75	38.21	20.54	40.41	-2.80*	(-2.47)
Donation of cereal flour	4.09	19.81	5.34	22.49	-1.25*	(-2.05)
School feeding	1.91	13.67	1.81	13.33	0.10	(0.25)
Food for work	0.83	9.09	1.42	11.84	-0.59	(-1.92)
Nutritional supplement for malnourished children	7.66	26.60	9.04	28.69	-1.38	(-1.73)
Cash for work	0.40	6.29	0.90	9.47	-0.51*	(-2.18)
Government cash transfers	0.16	3.98	0.73	8.53	-0.57**	(-2.96)
Cash transfers from other partners (NGOs, etc)	1.63	12.66	1.89	13.64	-0.27	(-0.71)
Free care for children under 5 years old	2.82	16.55	4.31	20.31	-1.49**	(-2.78)
Donation of treated bednet	28.23	45.02	32.17	46.72	-3.95**	(-2.99)
Public works paid for with agricultural inputs	0.64	7.95	0.60	7.74	0.03	(0.14)
Schooling support	0.99	9.91	2.07	14.23	-1.07**	(-3.02)
Pregnancy care programme	5.95	23.67	6.03	23.81	-0.07	(-0.11)
Vaccination	27.47	44.65	27.17	44.50	0.30	(0.23)
Annual medical check-up	5.00	21.80	3.92	19.41	1.08	(1.83)
Medication	11.35	31.73	10.34	30.45	1.02	(1.14)
Medical treatment	3.69	18.86	3.40	18.13	0.29	(0.54)
Observations	2,519		2,322		4,841	

Note: *=p-value<0.1; **=p-value<0.05; ***=p-value<0.01

Table 27: Financial support by treatment in Mali

	Mean treatment	SD treatment	Mean control	SD control	Mean difference	t-test
Number of people you could ask for money	3.06	4.28	3.48	5.32	0.42**	(2.83)
No. of siblings that you can ask for money	1.07	1.37	1.23	1.57	0.16**	(3.21)
No. of family members that you can ask for money	0.89	1.39	0.95	1.51	0.06	(1.33)
No. of friends that you can ask for money	0.81	1.29	0.97	1.63	0.17***	(3.41)
No. of other community members that you can ask for money	0.80	1.97	0.85	2.93	0.04	(0.54)
Probability of raising funds	0.39	0.49	0.36	0.48	-0.02	(-1.76)
Financial support index (FZ-score)	-0.04	0.96	0.00	1.00	0.04	(1.46)
Social cohesion and closeness to community (Z-index)	0.01	1.02	-0.01	0.98	-0.03	(-0.96)
Groups and collective action index (FZ-score)	3.65	117.75	0.00	1.00	-3.65	(-1.55)
Observations	2,519		2,322		4,841	

Note: *=p-value<0.1; **=p-value<0.05; ***=p-value<0.01

6.2. Summary Statistics by Gender of Household Head in Mali

Table 28: Household demographics by gender of HH head in Mali

	Mean male	SD male	Mean female	SD female	Mean difference	t-test
Panel A: Head of household						
% female HH head	0.00	0.00	100.00	0.00	-100.00	(.)
% HH head with any primary education	12.66	33.25	7.08	25.66	5.58***	(4.93)
Panel B: Household						
HH size	6.27	3.85	4.01	2.08	2.25***	(22.40)
% HH has school-age children enrolled in school	22.27	34.09	24.07	38.57	-1.80	(-0.96)
Total HH assets owned by HH	1.91	1.88	1.45	1.96	0.46***	(5.62)
Total farm assets owned by HH	0.83	1.50	0.15	0.52	0.68***	(22.22)
% HHs have a member that migrated	7.38	26.14	8.31	27.62	-0.93	(-0.80)
Observations	4,187		654		4,841	

Note: *=p-value<0.1; **=p-value<0.05; ***=p-value<0.01

Table 29: Income-generating activities by gender of HH head in Mali

	Mean male	SD male	Mean female	SD female	Mean difference	t-test
Panel A: Agriculture and livestock						
% HHs growing crops in main agri season	68.40	46.50	35.78	47.97	32.62***	(16.24)
% HHs growing crops in off-season agri	23.69	42.52	8.72	28.23	14.98***	(11.66)
HH revenue from crops sales (annual)	40,861.04	81,701.19	22,652.01	59,292.15	18,209.03***	(4.51)
% HHs rearing livestock	34.48	47.54	19.44	39.61	15.04***	(8.73)
Livestock count	11.82	11.85	7.48	8.07	4.34***	(5.53)
Livestock count (TLU)	1.73	2.29	1.44	2.37	0.29	(1.32)
Profit from livestock and products (last 6 months)	7,698.13	19,579.69	7,182.55	19,149.47	515.58	(0.29)
Panel B: Wage employment						
% of HHs with any wage employment	23.33	42.30	16.36	37.02	6.97***	(4.39)
% of adults employed in the HH	12.17	25.00	11.40	28.26	0.77	(0.66)
Per capita HH wage income (monthly)	13,648.71	22,898.29	10,300.83	16,919.14	3,347.88	(1.87)
% of HH head employed in the last 12 months	20.34	40.26	11.56	31.99	8.78***	(6.26)
% of HH head employed in agri job	38.53	48.69	22.67	42.15	15.86**	(3.08)
% of HH head employed in non-agri job	61.47	48.69	77.33	42.15	-15.86**	(-3.08)
Number of months worked in the last 12 months	6.54	3.43	6.85	3.74	-0.31	(-0.67)
Panel C: Non-agricultural business						
% HH owns a business	17.89	38.33	15.14	35.87	2.75	(1.81)
Number of businesses	1.48	1.32	1.21	1.01	0.27*	(2.38)
Profit from business (monthly)	28,035.51	37,769.02	21,473.08	26,534.30	6,562.43*	(2.10)
Type of business – agri (%)	24.97	43.31	37.37	48.63	-12.41*	(-2.42)
Type of business – non-agri (%)	66.22	47.33	47.47	50.19	18.75***	(3.52)
Number of months worked in HH business	7.04	3.67	7.47	3.86	-0.43	(-1.06)
Observations	4,187		654		4,841	

Note: *=p-value<0.1; **=p-value<0.05; ***=p-value<0.01

Table 30: Food security by gender of HH head in Mali

	Mean male	SD male	Mean female	SD female	Mean difference	t-test
Panel A: Food consumption score						
Food consumption score (FCS)	40.71	21.81	38.18	22.82	2.53**	(2.66)
% FCS poor (0–28)	35.01	47.71	41.44	49.30	-6.42**	(-3.11)
% FCS borderline (28.5–42)	19.25	39.43	16.82	37.43	2.43	(1.53)
% FCS acceptable (above 42)	45.74	49.82	41.74	49.35	3.99	(1.92)
Vitamin-A-rich foods						
% never consumed	45.26	49.78	46.64	49.92	-1.38	(-0.66)
% consumed sometimes	37.07	48.30	35.78	47.97	1.29	(0.64)
% consumed at least daily	17.67	38.15	17.58	38.10	0.09	(0.06)
Protein-rich foods						
% never consumed	21.85	41.33	27.68	44.77	-5.82**	(-3.12)
% consumed sometimes	43.21	49.54	41.59	49.33	1.61	(0.78)
% consumed at least daily	34.94	47.68	30.73	46.17	4.21*	(2.16)
Heme-iron-rich foods						
% never consumed	37.28	48.36	41.90	49.38	-4.61*	(-2.23)
% consumed sometimes	48.24	49.98	43.58	49.62	4.67*	(2.23)
% consumed at least daily	14.47	35.19	14.53	35.26	-0.05	(-0.04)
Panel B: Dietary diversity						
Household Dietary Diversity Score (HDDS)	4.13	1.69	3.86	1.74	0.27***	(3.66)
% HHs low dietary diversity (0–4.5)	57.63	49.42	65.29	47.64	-7.66***	(-3.80)
% HHs medium dietary diversity (4.5–6)	33.46	47.19	26.15	43.98	7.31***	(3.92)
% HHs good dietary diversity (above 6)	8.91	28.49	8.56	28.00	0.35	(0.29)
Panel C: Subjective food insecurity						
Food Insecurity Experience Scale (FIES)	4.04	3.40	5.01	3.40	-0.97***	(-6.80)
% HHs FIES food secure (0–3)	49.01	50.00	36.70	48.23	12.31***	(6.04)
% HHs FIES moderate food insecurity (4–6)	12.20	32.74	8.56	28.00	3.64**	(3.02)
% HHs FIES severe food insecurity (7–8)	38.79	48.73	54.74	49.81	-15.95***	(-7.64)
Observations	4,187		654		4,841	

Note: *=p-value<0.1; **=p-value<0.05; ***=p-value<0.01

Table 31: Consumption by gender of HH head in Mali

	Mean male	SD male	Mean female	SD female	Mean difference	t-test
HH food consumption – monthly	28,757.22	30,726.62	23,850.65	26,958.45	49,06.58***	(4.24)
HH non-food consumption – monthly	14,235.07	17,342.38	9,833.29	14,814.41	4,401.78***	(6.90)
HH total consumption – monthly	43,662.87	42,565.80	34,058.83	37,818.08	9,604.04***	(5.93)
Food expenditure share (FES %)	64.95	24.08	67.93	26.11	-2.99**	(-2.75)
Per capita food consumption – monthly	5,691.53	6,759.71	6,626.56	7,392.90	-935.03**	(-3.04)
Per capita non-food consumption – monthly	2,622.27	3,308.68	2,484.89	3,391.41	137.38	(0.97)
Per capita total consumption – monthly	8,390.57	8,899.21	9,190.04	9,577.35	-799.47*	(-2.00)
Observations	4,187		654		4,841	

Note: *=p-value<0.1; **=p-value<0.05; ***=p-value<0.01

Table 32: Psychosocial by gender of HH head in Mali

	Mean male	SD male	Mean female	SD female	Mean difference	t-test
Panel A: Household head						
Life satisfaction today (0–10)	4.14	1.69	3.53	1.72	0.61***	(8.47)
Life satisfaction two years ago (0–10)	4.73	2.05	4.11	2.13	0.62***	(6.90)
Subjective social status (0–10)	3.85	1.62	3.18	1.59	0.67***	(9.97)
Future expectations (0–10)	14.86	5.40	12.60	5.36	2.26***	(10.02)
Less depression (0–70)	24.56	10.90	27.55	11.66	-2.99***	(-6.11)
Less disability (0–28)	8.21	5.71	9.80	6.24	-1.60***	(-6.11)
Cohen's stress index (0–40)	18.99	4.41	19.56	4.66	-0.58**	(-2.97)
Self-efficacy (0–32)	21.81	4.98	20.20	5.62	1.62***	(6.91)
Satisfaction with life scale (0–30)	12.20	4.77	11.52	5.05	0.67**	(3.19)
Observations	4,187		654		4,841	

Note: *=p-value<0.1; **=p-value<0.05; ***=p-value<0.01

Table 33: Shocks by gender of HH head in Mali

	Mean male	SD male	Mean female	SD female	Mean difference	t-test
Number of shocks experienced	2.28	2.22	2.25	2.38	0.03	(0.26)
Drought/irregular rain	27.06	44.43	30.12	45.91	-3.06	(-1.59)
Floods	37.81	48.50	36.24	48.11	1.57	(0.77)
High rate of crop diseases	22.32	41.65	20.41	40.34	1.91	(1.00)
High rate of animal diseases	13.64	34.33	13.11	33.78	0.53	(0.33)
Major drop in prices of agricultural products	13.57	34.25	11.31	31.70	2.25	(1.67)
High prices of agricultural inputs	24.24	42.86	21.41	41.05	2.83	(1.63)
High prices of food	29.76	45.73	33.33	47.18	-3.57	(-1.81)
Serious illness or accident of a member of the household	9.34	29.10	7.19	25.85	2.15	(1.95)
Death of a member of the household	5.07	21.94	12.55	33.16	-7.48***	(-5.01)
Divorce, separation	1.77	13.19	4.12	19.89	-2.35**	(-2.62)
Religious conflict	3.49	18.35	3.98	19.55	-0.49	(-0.60)
Ethnic conflict	22.00	41.43	17.43	37.97	4.57**	(2.82)
Significant loss of non-farm household income	7.09	25.67	7.34	26.10	-0.25	(-0.22)
Other	24.17	42.82	16.06	36.74	8.12***	(5.13)
Observations	4,187		654		4,841	

Note: *=p-value<0.1; **=p-value<0.05; ***=p-value<0.01

Table 34: Coping strategies by gender of HH head in Mali

	Mean male	SD male	Mean female	SD female	Mean difference	t-test
Number of coping strategies used	0.89	1.40	0.80	1.46	0.09	(1.54)
Stress coping strategies						
% HHs spend savings	11.14	31.47	8.64	28.12	2.50*	(2.00)
% HHs sell livestock	13.51	34.19	10.08	30.13	3.43*	(2.56)
% HHs sell food stocks	9.67	29.56	9.84	29.80	-0.16	(-0.13)
% HHs borrowed money	2.44	15.42	2.75	16.37	-0.32	(-0.46)
Crisis coping strategies						
% HHs withdraw children from school	6.66	24.93	7.89	26.99	-1.24	(-1.06)
% HHs reduce health/education spending	11.53	31.95	11.37	31.77	0.17	(0.12)
% HHs consumed seed stocks that were to be saved for next season	1.29	11.28	0.76	8.72	0.53	(1.37)
Emergency coping strategies						
% HHs sold a house or land	0.00	0.00	0.00	0.00	0.00	(.)
% HHs begged	0.14	3.78	0.31	5.53	-0.16	(-0.73)
% HHs migrated	0.07	2.68	0.15	3.91	-0.08	(-0.51)
Miscellaneous coping strategies						
% HHs sold productive assets or means of transport	0.79	8.84	0.46	6.76	0.33	(1.11)
% HHs reduce food consumption (quantity/meal; of meals/day)	28.65	45.22	27.61	44.75	1.03	(0.53)
% HHs purchased food on credit or borrowed food	0.91	9.48	0.76	8.72	0.14	(0.39)
% HHs used remittances	0.07	2.68	0.15	3.91	-0.08	(-0.51)
% HHs sold other household assets/goods	0.38	6.17	0.00	0.00	0.38***	(4.01)
% HHs reduced non-food expenses	0.55	7.39	0.31	5.53	0.24	(1.00)
% HHs where members took on additional activities	1.00	9.97	0.15	3.91	0.85***	(3.92)
% HHs received help from relatives or friends	0.45	6.72	0.92	9.54	-0.46	(-1.20)
% HHs received aid from government	0.00	0.00	0.00	0.00	0.00	(.)
% HHs received aid from NGO	0.14	3.78	0.00	0.00	0.14*	(2.45)
% HHs turned to God	2.63	16.00	2.45	15.46	0.18	(0.28)
% HHs used other coping strategies	0.81	8.98	0.46	6.76	0.35	(1.18)
Livelihood-based coping strategy category						
% HHs used stress coping strategy	22.31	41.64	16.51	37.16	5.79***	(3.65)
% HHs used crisis coping strategy	13.66	34.35	13.00	33.65	0.66	(0.47)
% HHs used emergency coping strategy	0.21	4.63	0.46	6.76	-0.24	(-0.89)
Observations	4,187		654		4,841	

Note: *=p-value<0.1; **=p-value<0.05; ***=p-value<0.01

Table 35: Financial outcomes by gender of HH head in Mali

	Mean male	SD male	Mean female	SD female	Mean difference	t-test
% of HHs used any savings mechanism	10.39	30.52	5.81	23.41	4.58***	(4.45)
Total savings	1,039.41	4,458.84	504.82	2,974.76	534.60***	(3.95)
% of HHs applied for a loan	10.25	30.33	7.34	26.10	2.91**	(2.59)
Amount borrowed	4,260.56	17,140.48	2,482.80	12,182.00	1,777.77**	(3.26)
% of HHs received financial and non-financial transfers	1.55	12.36	4.28	20.26	-2.73***	(-3.35)
Total transfers received	4,672.02	16,605.49	5,112.39	16,294.03	-440.36	(-0.64)
Amount transferred to family	28,424.13	48,992.17	10,371.04	17,092.42	18,053.1 *	(1.89)
% HH received remittances (from HH member)	54.55	50.05	85.00	36.63	-30.45**	(-3.17)
Observations	4,187		654		4,841	

Note: *=p-value<0.1; **=p-value<0.05; ***=p-value<0.01

Table 36: Time use by gender of HH head in Mali

	Mean male	SD male	Mean female	SD female	Mean difference	t-test
Panel A: Activities at sunrise (6am)						
Work	52.59	49.94	25.69	43.72	26.90***	(14.34)
Chore	13.69	34.37	35.93	48.02	-22.25***	(-11.40)
Leisure	3.89	19.35	3.52	18.43	0.38	(0.48)
Rest	13.33	33.99	14.53	35.26	-1.20	(-0.81)
Panel B: Activities in the morning (9am)						
Work	66.95	47.05	35.63	47.93	31.32***	(15.58)
Chore	14.28	34.99	40.52	49.13	-26.24***	(-13.15)
Leisure	3.80	19.12	4.43	20.60	-0.64	(-0.74)
Rest	0.98	9.85	0.92	9.54	0.06	(0.15)
Panel C: Activities in the afternoon (3pm)						
Work	53.36	49.89	26.15	43.98	27.21***	(14.44)
Chore	15.64	36.33	34.86	47.69	-19.22***	(-9.87)
Leisure	11.97	32.46	9.63	29.53	2.33	(1.85)
Rest	3.85	19.23	8.10	27.31	-4.26***	(-3.84)
Panel D: Activities in the evening (7pm)						
Work	16.22	36.86	6.57	24.80	9.64***	(8.57)
Chore	12.56	33.15	22.94	42.07	-10.37***	(-6.02)
Leisure	44.97	49.75	41.90	49.38	3.08	(1.48)
Rest	7.67	26.61	10.40	30.55	-2.73*	(-2.16)
Panel E: Activities at night (10pm)						
Work	3.39	18.10	1.53	12.28	1.86***	(3.35)
Chore	1.74	13.09	3.52	18.43	-1.77*	(-2.37)
Leisure	5.33	22.46	2.45	15.46	2.88***	(4.13)
Rest	80.25	39.82	85.02	35.72	-4.77**	(-3.12)
Observations	4,187		654		4,841	

Note: *=p-value<0.1; **=p-value<0.05; ***=p-value<0.01

Table 37: Programme participation by gender of HH head in Mali

	Mean male	SD male	Mean female	SD female	Mean difference	t-test
Donation of cereals	19.06	39.28	19.27	39.47	-0.21	(-0.12)
Donation of cereal flour	4.63	21.02	5.05	21.91	-0.41	(-0.45)
School feeding	1.86	13.52	1.83	13.43	0.03	(0.05)
Food for work	0.93	9.61	2.29	14.98	-1.36*	(-2.25)
Nutritional supplement for malnourished children	8.86	28.42	4.89	21.59	3.97***	(4.17)
Cash for work	0.72	8.44	0.15	3.91	0.56**	(2.80)
Government cash transfers	0.24	4.88	1.68	12.87	-1.44**	(-2.84)
Cash transfers from other partners (NGOs, etc)	1.65	12.73	2.45	15.46	-0.80	(-1.26)
Free care for children under 5 years old	3.70	18.88	2.45	15.46	1.26	(1.87)
Donation of treated bednet	31.57	46.49	20.80	40.62	10.78***	(6.18)
Public works paid for with agricultural inputs	0.60	7.70	0.76	8.72	-0.17	(-0.46)
Schooling support	1.31	11.39	2.75	16.37	-1.44*	(-2.17)
Pregnancy care programme	6.52	24.69	2.60	15.92	3.92***	(5.37)
Vaccination	28.97	45.37	16.82	37.43	12.15***	(7.49)
Annual medical check-up	4.51	20.76	4.28	20.26	0.23	(0.27)
Medication	11.56	31.98	6.42	24.53	5.14***	(4.76)
Medical treatment	3.61	18.65	3.21	17.64	0.40	(0.53)
Observations	4,187		654		4,841	

Note: *=p-value<0.1; **=p-value<0.05; ***=p-value<0.01

Table 38: Financial support by gender of HH head in Mali

	Mean male	SD male	Mean female	SD female	Mean difference	t-test
Number of people you could ask for money	3.29	4.61	3.14	6.01	0.14	(0.54)
No. of siblings that you can ask for money	1.15	1.47	1.08	1.48	0.07	(0.97)
No. of family members that you can ask for money	0.92	1.45	0.92	1.42	-0.00	(-0.02)
No. of friends that you can ask for money	0.92	1.46	0.66	1.46	0.26***	(3.67)
No. of other community members that you can ask for money	0.80	1.93	1.00	4.78	-0.21	(-0.95)
Probability of raising funds	0.39	0.49	0.30	0.46	0.09***	(4.52)
Financial support index (FZ-score)	-0.01	0.96	-0.12	1.09	0.11*	(2.43)
Social cohesion and closeness to community (Z-index)	0.01	0.98	-0.08	1.09	0.09	(1.95)
Groups and collective action index (FZ-score)	0.97	44.61	7.84	201.73	-6.87	(-0.87)
Observations	4,187		654		4,841	

Note: *=p-value<0.1; **=p-value<0.05; ***=p-value<0.01

6.3. Summary Statistics by Poverty Status in Mali

Table 39: HH demographics by poverty status in Mali

	Mean poor	SD poor	Mean non-poor	SD non-poor	Mean difference	t-test
Panel A: Head of household						
% female HH head	16.70	37.31	12.21	32.74	4.49***	(3.93)
% HH head with any primary education	11.12	31.45	12.22	32.75	-1.10	(-1.08)
Panel B: Household						
HH size	5.69	3.61	6.07	3.79	-0.38**	(-3.28)
% HH has school-age children enrolled in school	24.17	35.41	21.83	34.35	2.35	(1.87)
Total HH assets owned by HH	1.73	1.73	1.90	1.96	-0.17**	(-2.95)
Total farm assets owned by HH	0.66	1.33	0.78	1.46	-0.12**	(-2.76)
% HHs have a member that migrated	6.71	25.02	7.82	26.86	-1.12	(-1.37)
Observations	1,401		3,440		4,841	

Note: *=p-value<0.1; **=p-value<0.05; ***=p-value<0.01

Table 40: Income-generating activities by poverty status in Mali

	Mean poor	SD poor	Mean non-poor	SD non-poor	Mean difference	t-test
Panel A: Agriculture and livestock						
% HHs growing crops in main agri season	59.89	49.03	65.67	47.49	-5.78***	(-3.76)
% HHs growing crops in off-season agri	15.85	36.53	24.04	42.74	-8.19***	(-6.73)
HH revenue from crops sales (annual)	37,083.26	75,919.09	40,309.23	81,872.22	-3,225.98	(-1.04)
% HHs rearing livestock	30.22	45.94	33.36	47.16	-3.15*	(-2.14)
Livestock count	10.50	10.24	11.83	12.11	-1.34*	(-2.17)
Livestock count (TLU)	1.53	1.94	1.78	2.41	-0.25*	(-2.13)
Profit from livestock and products (last 6 months)	7,379.32	19,395.56	7,758.70	19,600.13	-379.38	(-0.34)
Panel B: Wage employment						
% of HHs with any wage employment	22.70	41.90	22.27	41.61	0.43	(0.32)
% of adults employed in the HH	12.30	25.55	11.98	25.43	0.32	(0.39)
Per capita HH wage income (monthly)	13,387.82	21,881.17	13,289.37	22,619.18	98.45	(0.07)
% of HH head employed in the last 12 months	19.90	39.94	18.85	39.12	1.05	(0.83)
% of HH head employed in agri job	36.13	48.13	37.69	48.50	-1.56	(-0.45)
% of HH head employed in non-agri job	63.87	48.13	62.31	48.50	1.56	(0.45)
Number of months worked in the last 12 months	6.50	3.54	6.60	3.43	-0.09	(-0.36)
Panel C: Non-agricultural business						
% HH owns a business	17.99	38.42	17.33	37.85	0.66	(0.55)
Number of businesses	1.28	0.98	1.52	1.40	-0.24**	(-2.90)
Profit from business (monthly)	23,657.96	32,637.63	28,895.03	38,291.82	-5,237.08*	(-1.98)
Type of business – agri (%)	21.43	41.11	28.52	45.19	-7.09*	(-2.23)
Type of business – non-agri (%)	61.90	48.66	64.93	47.76	-3.03	(-0.83)
Number of months worked in HH business	7.11	3.66	7.08	3.71	0.03	(0.10)
Observations	1,401		3,440		4,841	

Note: *=p-value<0.1; **=p-value<0.05; ***=p-value<0.01

Table 41: Food security by poverty status in Mali

	Mean poor	SD poor	Mean non-poor	SD non-poor	Mean difference	t-test
Panel A: Food consumption score						
Food consumption score (FCS)	39.02	21.59	40.92	22.10	-1.91**	(-2.77)
% FCS poor (0–28)	38.26	48.62	34.91	47.68	3.35*	(2.18)
% FCS borderline (28.5–42)	19.06	39.29	18.87	39.13	0.19	(0.15)
% FCS acceptable (above 42)	42.68	49.48	46.22	49.86	-3.54*	(-2.25)
% never consumed	47.61	49.96	44.56	49.71	3.04	(1.93)
Vitamin-A-rich foods						
% consumed sometimes	35.76	47.95	37.35	48.38	-1.59	(-1.05)
% consumed at least daily	16.63	37.25	18.08	38.49	-1.45	(-1.22)
% never consumed	24.55	43.06	21.86	41.34	2.69*	(2.00)
Protein-rich foods						
% consumed sometimes	42.68	49.48	43.11	49.53	-0.43	(-0.27)
% consumed at least daily	32.76	46.95	35.03	47.71	-2.27	(-1.52)
% never consumed	38.90	48.77	37.50	48.42	1.40	(0.91)
Heme-iron-rich foods						
% consumed sometimes	46.75	49.91	47.97	49.97	-1.21	(-0.77)
% consumed at least daily	14.35	35.07	14.53	35.25	-0.19	(-0.17)
Household Dietary Diversity Score (HDDS)	3.95	1.67	4.15	1.71	-0.20***	(-3.70)
Panel B: Dietary diversity						
% HHs low dietary diversity (0–4.5)	62.74	48.37	57.01	49.51	5.74***	(3.72)
% HHs medium dietary diversity (4.5–6)	29.34	45.55	33.75	47.29	-4.41**	(-3.02)
% HHs good dietary diversity (above 6)	7.92	27.02	9.24	28.97	-1.32	(-1.51)
% minimum dietary diversity for women (MDD-W)	9.88	29.89	9.32	29.09	0.57	(0.29)
% minimum acceptable diet (breastfed children)	0.00	0.00	0.00	0.00	0.00	(.)
% minimum acceptable diet (non-breastfed children)	4.35	20.85	11.76	32.54	-7.42	(-1.18)
Panel C: Subjective food insecurity						
Food Insecurity Experience Scale (FIES)	4.47	3.47	4.05	3.38	0.43***	(3.91)
% HHs FIES food secure (0–3)	43.75	49.63	48.81	49.99	-5.05**	(-3.21)
% HHs FIES moderate food insecurity (4–6)	9.64	29.52	12.56	33.14	-2.92**	(-3.01)
% HHs FIES severe food insecurity (7–8)	46.61	49.90	38.63	48.70	7.98***	(5.08)
Observations	1,401		3,440		4,841	

Note: *=p-value<0.1; **=p-value<0.05; ***=p-value<0.01

Table 42: Consumption by poverty status in Mali

	Mean poor	SD poor	Mean non-poor	SD non-poor	Mean difference	t-test
HH food consumption – monthly	27,601.99	30,427.85	28,294.89	30,234.25	-692.91	(-0.72)
HH non-food consumption – monthly	13,613.55	16,262.73	13,651.34	17,414.90	-37.79	(-0.07)
HH total consumption – monthly	42,046.90	41,885.97	42,495.11	42,164.75	-448.21	(-0.34)
Food expenditure share (FES %)	64.96	24.40	65.51	24.37	-0.55	(-0.72)
Per capita food consumption – monthly	5,933.23	6,952.15	5,770.86	6,815.96	162.37	(0.74)
Per capita non-food consumption – monthly	2,738.87	3,348.36	2,548.66	3,307.23	190.21	(1.80)
Per capita total consumption – monthly	8,790.80	9,160.30	8,379.56	8,928.15	411.23	(1.43)
Observations	1,401		3,440		4,841	

Note: *=p-value<0.1; **=p-value<0.05; ***=p-value<0.01

Table 43: Shocks by poverty status in Mali

	Mean poor	SD poor	Mean non-poor	SD non-poor	Mean difference	t-test
Number of shocks experienced	2.34	2.29	2.25	2.23	0.09	(1.20)
Drought/irregular rain	27.91	44.87	27.30	44.55	0.61	(0.43)
Floods	39.47	48.90	36.83	48.24	2.64	(1.71)
High rate of crop diseases	23.11	42.17	21.51	41.10	1.60	(1.04)
High rate of animal diseases	13.90	34.62	13.40	34.07	0.51	(0.40)
Major drop in prices of agricultural products	13.99	34.70	12.97	33.60	1.02	(0.94)
High prices of agricultural inputs	26.77	44.29	22.67	41.88	4.09**	(2.96)
High prices of food	30.05	45.86	30.32	45.97	-0.27	(-0.19)
Serious illness or accident of a member of the household	10.14	30.19	8.60	28.05	1.53	(1.63)
Death of a member of the household	6.08	23.90	6.31	24.32	-0.23	(-0.27)
Divorce, separation	2.30	15.00	2.06	14.21	0.24	(0.44)
Religious conflict	2.71	16.25	3.90	19.35	-1.18*	(-2.17)
Ethnic conflict	19.56	39.68	22.12	41.51	-2.56*	(-2.01)
Significant loss of non-farm household income	7.49	26.34	6.98	25.48	0.52	(0.63)
Other	20.49	40.37	24.13	42.79	-3.64**	(-2.80)
Observations	1,401		3,440		4,841	

Note: *=p-value<0.1; **=p-value<0.05; ***=p-value<0.01

Table 44: Financial outcomes by poverty status in Mali

	Mean poor	SD poor	Mean non-poor	SD non-poor	Mean difference	t-test
% of HHs used any savings mechanism	7.92	27.02	10.52	30.69	-2.60**	(-2.92)
Total savings	585.02	3,231.06	1,122.84	4,646.86	-537.81***	(-4.59)
% of HHs applied for a loan	9.99	30.00	9.80	29.73	0.20	(0.21)
Amount borrowed	4,363.15	17,706.95	3,879.74	16,078.97	483.41	(0.88)
% of HHs received financial and non-financial transfers	2.00	14.00	1.89	13.62	0.11	(0.25)
Total transfers received	4,373.48	15,585.05	4,877.33	16,944.84	-503.84	(-0.99)
Amount transferred to family	26,982.15	41,893.61	25,106.05	47,923.09	-1,876.097	(0.25)
% HH received remittances (from HH member)	72.73	45.23	54.65	50.08	18.08	(1.89)
Observations	1,401		3,440		4,841	

Note: *=p-value<0.1; **=p-value<0.05; ***=p-value<0.01

Table 45: Time use by poverty status in Mali

	Mean poor	SD poor	Mean non-poor	SD non-poor	Mean difference	t-test
Panel A: Activities at sunrise (6am)						
Work	47.11	49.93	49.71	50.01	-2.60	(-1.64)
Chore	18.42	38.77	15.99	36.66	2.43*	(2.01)
Leisure	3.93	19.43	3.81	19.14	0.12	(0.19)
Rest	11.63	32.08	14.24	34.96	-2.61*	(-2.50)
Panel B: Activities in the morning (9am)						
Work	60.31	48.94	63.69	48.10	-3.38*	(-2.19)
Chore	19.34	39.51	17.21	37.75	2.13	(1.73)
Leisure	3.64	18.74	3.98	19.56	-0.34	(-0.57)
Rest	1.36	11.57	0.81	8.99	0.54	(1.57)
Panel C: Activities in the afternoon (3pm)						
Work	45.47	49.81	51.40	49.99	-5.93***	(-3.75)
Chore	18.84	39.12	17.99	38.42	0.85	(0.69)
Leisure	13.49	34.17	10.90	31.17	2.59*	(2.45)
Rest	6.14	24.01	3.72	18.93	2.42***	(3.37)
Panel D: Activities in the evening (7pm)						
Work	14.49	35.21	15.09	35.80	-0.60	(-0.53)
Chore	13.70	34.40	14.07	34.78	-0.37	(-0.33)
Leisure	47.82	49.97	43.23	49.55	4.60**	(2.91)
Rest	7.92	27.02	8.08	27.26	-0.16	(-0.18)
Panel E: Activities at night (10pm)						
Work	3.71	18.91	2.91	16.80	0.80	(1.39)
Chore	1.28	11.27	2.27	14.89	-0.98*	(-2.50)
Leisure	4.57	20.89	5.09	21.98	-0.52	(-0.77)
Rest	81.23	39.06	80.76	39.43	0.47	(0.38)
Observations	1,401		3,440		4,841	

Note: *=p-value<0.1; **=p-value<0.05; ***=p-value<0.01

Table 46: Financial support by poverty status in Mali

	Mean poor	SD poor	Mean non-poor	SD non-poor	Mean difference	t-test
Number of people you could ask for money	3.04	4.33	3.36	5.00	0.32*	(2.10)
No. of siblings that you can ask for money	1.11	1.39	1.16	1.51	0.05	(1.01)
No. of family members that you can ask for money	0.78	1.27	0.97	1.51	0.19***	(4.00)
No. of friends that you can ask for money	0.84	1.61	0.90	1.40	0.06	(1.03)
No. of other community members that you can ask for money	0.76	1.83	0.85	2.71	0.08	(1.10)
Probability of raising funds	0.38	0.48	0.37	0.48	-0.00	(-0.19)
Financial support index (FZ-score)	-0.06	0.98	-0.01	0.98	0.06	(1.78)
Social cohesion and closeness to community (Z-index)	-0.03	1.01	0.01	1.00	0.05	(1.54)
Groups and collective action index (FZ-score)	3.81	137.87	1.12	49.17	-2.69	(-0.71)
Observations	1,401		3,440		4,841	

Note: *=p-value<0.1; **=p-value<0.05; ***=p-value<0.01

Table 47: Psychosocial by poverty status in Mali

	Mean poor	SD poor	Mean non-poor	SD non-poor	Mean difference	t-test
Panel A: Household head						
Life satisfaction today (0–10)	3.94	1.75	4.11	1.69	-0.17**	(-3.04)
Life satisfaction two years ago (0–10)	4.46	2.10	4.72	2.06	-0.27***	(-4.03)
Subjective social status (0–10)	3.59	1.67	3.83	1.61	-0.24***	(-4.60)
Future expectations (0–10)	14.19	5.58	14.71	5.39	-0.53**	(-3.00)
Less depression (0–70)	25.07	11.05	24.92	11.06	0.15	(0.43)
Less disability (0–28)	8.81	5.95	8.27	5.75	0.54**	(2.89)
Cohen's stress index (0–40)	19.14	4.45	19.03	4.45	0.11	(0.76)
Self-efficacy (0–32)	21.62	5.15	21.59	5.08	0.04	(0.23)
Satisfaction with life scale (0–30)	12.00	4.99	12.15	4.74	-0.15	(-0.97)
Panel B: Primary female decision-maker						
Female locus of control (0–10)	5.40	1.76	5.48	1.47	-0.08	(-0.20)
Observations	1401		3440		4841	

Note: *=p-value<0.1; **=p-value<0.05; ***=p-value<0.01

Table 48: Programme participation by poverty status in Mali

	Mean poor	SD poor	Mean non-poor	SD non-poor	Mean difference	t-test
Donation of cereals	18.42	38.77	19.36	39.52	-0.95	(-0.76)
Donation of cereal flour	3.35	18.01	5.23	22.27	-1.88**	(-3.06)
School feeding	2.21	14.71	1.72	12.99	0.50	(1.10)
Food for work	1.36	11.57	1.02	10.04	0.34	(0.96)
Nutritional supplement for malnourished children	6.35	24.40	9.13	28.80	-2.78***	(-3.40)
Cash for work	0.93	9.59	0.52	7.22	0.40	(1.42)
Government cash transfers	0.64	7.99	0.35	5.90	0.29	(1.24)
Cash transfers from other partners (NGOs, etc)	1.50	12.16	1.86	13.51	-0.36	(-0.91)
Free care for children under 5 years old	2.00	14.00	4.16	19.96	-2.16***	(-4.27)
Donation of treated bednet	26.98	44.40	31.40	46.42	-4.41**	(-3.10)
Public works paid for with agricultural inputs	0.21	4.62	0.78	8.83	-0.57**	(-2.93)
Schooling support	1.50	12.16	1.51	12.20	-0.01	(-0.03)
Pregnancy care programme	3.85	19.26	6.86	25.28	-3.01***	(-4.48)
Vaccination	25.77	43.75	27.97	44.89	-2.20	(-1.57)
Annual medical check-up	5.07	21.94	4.24	20.16	0.82	(1.21)
Medication	8.92	28.52	11.66	32.10	-2.73**	(-2.92)
Medical treatment	2.64	16.04	3.92	19.42	-1.28*	(-2.37)
Observations	1,401		3,440		4,841	

Note: *=p-value<0.1; **=p-value<0.05; ***=p-value<0.01

Acronyms

CO	Country office
CSP	Country strategic plan
DIME	Development Impact Evaluation
FAO	Food and Agricultural Organization
FCFA	West African CFA franc
FCS	Food consumption score
FCS-N	Food consumption score – nutrition
FFA	Food assistance for assets
FIES	Food Insecurity Experience Scale
HDDS	Household Dietary Diversity Score
HH	Head of the household
IE	Impact evaluation
OEV	Office of Evaluation (World Food Programme)
PHQ-9	Patient Health Questionnaire-9
RCT	Randomized control trial
WFP	World Food Programme

Office of Evaluation
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