Baseline Study of the Resilience Food Security Activities (RFSAs) in Niger: Final Report

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The Implementer-Led Evaluation & Learning (IMPEL) Associate Award works to improve the design and implementation of Bureau for Humanitarian Assistance (BHA)-funded resilience food security activities (RFSAs) through implementer-led evaluations and knowledge sharing. Funded by the United States Agency for International Development (USAID) BHA, IMPEL will gather information and knowledge in order to measure performance of RFSAs, strengthen accountability, and improve guidance and policy. This information will help the food security community of practice and USAID to design projects and modify existing projects in ways that bolster performance, efficiency, and effectiveness. IMPEL is a seven-year activity (2019-2026) implemented by Save the Children (lead), TANGO International, Tulane University, Causal Design, and Innovations for Poverty Action.

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PHOTO CREDIT

Gheda Temsah / TANGO International 2019.

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ACRONYMS

ANC	Antenatal care
BHA	Bureau for Humanitarian Assistance
DEMI-E	*Développement pour un Mieux Être*
DFAP	Development Food Assistance Program
DHS	Demographic and Health Survey
ECVM/A	Niger National Survey On Household Living Conditions and Agriculture
FAO	Food and Agriculture Organization
FCS	Food Consumption Score
FEWS NET	Famine Early Warning Systems Network
FFP	Food for Peace
FMNR	Farmer-managed natural resource generation
GIEWS	Global Information and Early Warning System
IMPEL	Implementer-Led Evaluation and Learning Associate Award
IP	Implementing partner
MDD-C	Minimum Dietary Diversity – Children
MDD-W	Minimum Dietary Diversity – Women
NRM	Natural resource management
OFDA	Office of Foreign Disaster Assistance
ORT	Oral rehydration therapy
RFSA	Resilience Food Security Activity
RISE	Resilience in the Sahel-Enhanced
PBS	Population-based survey
TANGO	Technical Assistance to NGOs
ToT	Training of trainers
USAID	United States Agency for International Development
VSLA	Village Savings and Loan Association
WASH	Water, sanitation, and hygiene
WFP	World Food Program

ANNEX 3: 2020 NIGER BASELINE STUDY PERSONNEL

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ANNEX 4: SUMMARY OF DATA TREATMENT AND ANALYSIS

INTRODUCTION

This annex provides information about the procedures used to clean and weight data and compute indicators from the 2020 baseline survey of the Bureau for Humanitarian Aid (BHA) Resilience Food Security Activities (RFSAs) in Niger. It also outlines the descriptive, inferential, and econometric data analysis that was conducted.

Data Collection Mode and Data Transmission Procedures

The 2020 BL household survey data for the BHA RFSAs in Niger were collected using Computer-Assisted Personal Interviewing (CAPI) by TANGO's local partner, Bagna Solutions. Tablets were loaded with the Open Data Kit (ODK) data entry application developed at TANGO for BHA surveys. Enumerators entered data directly into the tablets and team leads reviewed and edited interviews in the field prior to transmission to a secure server. Completed interviews were uploaded to a TANGO cloud server via secure transmission.

ODK Data Entry Training

All enumerators, team leads, field supervisors, and local independent survey monitors participated in the training and pilot pre-test prior to the start of fieldwork to ensure thorough understanding the of the survey protocols, instrument, and the successful use of tablets during data collection. Pre-fieldwork ODK data entry training focused on the following:

- Basic use of tablets, including how to turn devices on/off; scrolling; swiping and charging batteries.
- Navigation of the ODK form including how to start, edit, save, and upload interviews, and moving between modules.
- Review of ODK-specific formatting and notation that provide instructions to the enumerators.
- Review of different types of responses and entering responses, including programmed numeric and alpha responses, open-ended numeric and text responses, and multiple responses.
- Mock interviews, including starting/stopping the interview, reading questions, entering different types of responses, and entering household roster information.
- Workflow, including assigning interviews, sending completed enumerator to team leads, reviewing saved interviews and uploading finalized interviews to the server.

Field Quality Control Procedures

TANGO ensures high-quality data through a strong emphasis on training field staff, monitoring data collection and quality control during fieldwork. Quality control procedures established in the field include:

Fieldwork oversight: Assignment of one team lead to oversee every five enumerators. The team lead should observe at least one interview per day/enumerator during the fieldwork, with the heaviest observation at the beginning and end. Local survey monitors, hired directly by TANGO, provided an additional layer of quality control independent of the Bagna field supervisors. Survey monitors accompanied the data collection teams throughout the period of fieldwork, overseeing fieldwork and providing feedback to Bagna supervisors to communicate back to Team Leads. TANGO convened daily de-briefs with the survey monitors to review issues encountered and how they were addressed.

Inconsistency checks: The ODK data entry application includes respondent eligibility checks, checks for questionnaire skip patterns and filters, valid response range checks and other quality control checks.

Data review: Team Leads reviewed saved interviews daily to identify any missing or problematic data items before uploading the completed interviews to the server.

Re-interviews: During fieldwork, team leads randomly selected households interviewed to conduct a short re-interview of the roster and compare the results to the questionnaire completed by the enumerator.

Completion of interviews*:* Enumerators made up to three visits to the household to interview a respondent and planned one to two visits with respondents to successfully complete the interview, when necessary.

Data Processing Quality Control Procedures

The ODK data entry program was initially designed based on the English-language version of the questionnaire and incorporates valid data ranges, skip rules, filters, and consistency checks. After the English version of the electronic form was tested and validated, the French translation was added. The following quality control checks were used during the data processing cycle:

1) Data Capture (During field work/in the field)

a) Identifier integrity: ODK data entry forms were prefilled with geographic identifiers (region, commune, and village) and household identifiers (name of household head and unique household ID) using information from the household listing files. This step ensures that the correct identifier is associated with each record and that the correct household that was sampled is interviewed.

b) Correct member selection: The ODK form was designed to auto-fill the respondent selection items with the names and line numbers of eligible members based on information collected from the household roster. This step ensures the correct identification and selection of eligible household members for each module.

c) Range checks for close-ended numeric responses: The program ensures that only values within that range of numeric values listed in the ODK dictionary can be entered.

d) Range checks for alphabetic responses: The ODK program is fitted so that only letters listed in the response options can be entered.

e) Multiple responses: For questions that allow multiple responses to be selected, the ODK program is fitted so that responses that must appear in isolation from any other response do not appear in combination with any other letter/number.

f) "Other" responses: For questions that allow "other" responses, the program is designed to ensure that responses requiring an "other" text entry are not skipped.

g) Blank responses: The ODK program is design so that fields cannot be left blank. Enumerators cannot move on to the next question without entering a valid response. The ODK dictionary includes pre-programmed codes for respondents who don't know (usually '8') and respondents who refuse to answer (usually '9').

h) Skips: If a skip is present, then based on the respondent's answer to the question, the skip will be applied by the ODK program. Responses that are skipped (i.e., valid skips) will be designated as missing (".") by the ODK program.

i) Filters: If a question should not be asked, for example, it will be skipped. For example, children 24 months or older are not asked about their food and liquid intake and pregnant women are

not asked about current use of contraception. In such cases, the question or set of questions will be skipped over.

2) **Structure Checks (During fieldwork at TANGO offices)**

Data were downloaded from the server daily and the total number of completed surveys for that day and the aggregated number of completed surveys across all collection days were confirmed with the local field collection teams. The household response rate was tracked and flagged to field teams if it dropped below 95 percent. The numbers of eligible children ages 0-4 years and women ages 15-49 years were checked to ensure they are within range of the expected values. Age data were also checked for age displacement and age heaping. In addition, data from select modules were reviewed to ensure that the modules were completed correctly and that "no" responses for skip orders were not unexpectedly high.

3) **Consistency Checks (After completion of fieldwork at TANGO offices)**

Following the completion of field work and receipt of final datasets from Bagna Solutions, TANGO performed additional checks and data cleaning protocols that included: (a) consistency checks for information recorded in more than one module (e.g., age, sex, marital status, and work status); and (b) checks on numeric responses to identify and address outliers; and (c) recoding "other" text responses and to available response codes if applicable.

HANDLING OF MISSING DATA AND "DON'T KNOW" RESPONSES

Missing data points are not included in calculations for BHA indicators (i.e., they are excluded from the denominator and numerator). "Don't Know" responses are recoded to the null value and included in the denominator, i.e., "Yes," "No" and "Don't Know" responses are included in the denominator, but only "Yes" responses are counted in the numerator.

BHA INDICATOR DEFINITIONS

The questionnaire used for the baseline survey was streamlined from the core BHA population-based household questionnaire to reflect a "Baseline Lite" approach, with more limited but critical lower-level indicators.[1] Questions and response options were adapted to the country context, such as those that involve food in modules C, D and E, and F. The survey was also contextualized to capture information on different improved agricultural practices promoted in each RFSA area. A COVID-19 module was added to collect information on knowledge and adoption of COVID-19 mitigation practices, the impacts of COVID-19 on households' livelihoods and food security, as well as coping strategies to manage those impacts. Another module was incorporated to collect information on household participation in the RFSA given that RFSA interventions commenced before the baseline study could be conducted (due to delays from the COVID-19 pandemic) and that some life-saving activities and essential services may have continued throughout the COVID-19 pandemic. Table 1: 1 illustrates the indicators measured, the level of disaggregation as prescribed in the FFP Handbook supplement on indicator tabulations, and reference documents providing the indicator definition and method of calculation.

[1] The survey tool did not collect anthropometric measurements for children or women, or consumption expenditures data for households.

Table 1: Indicators measured in the 2020 "Baseline Lite" survey of the BHA RFSAs in Niger

Indicator	Disaggregation Level	Reference Documents	
		Indicator Description/Reference Sheet[1]	Indicator Tabulation Instructions[2]
FOOD SECURITY			
Percentage of households with poor, borderline, and adequate Food Consumption Score (FCS) Mean FCS	Gendered household type*	FFP Indicators Handbook Part 1, pp. 13–16	Supplement to Part I, pp. 17–19
WATER, SANITATION AND HYGIENE			
Percentage of households using basic drinking water services	Gendered household type	FFP Indicators Handbook Part 1, pp. 54–56	Supplement to Part I, pp. 55
Percentage of households with access to a basic sanitation service	Gendered household type	FFP Indicators Handbook Part 1, pp. 60–61	Supplement to Part I, pp. 56
Percentage of households with soap and water at a hand–washing station on premises	Gendered household type	FFP Indicators Handbook Part 1, pp. 64–65	Supplement to Part I, pp. 57
AGRICULTURE			
Percentage of farmers who used financial services (savings, agricultural credit and/or agricultural insurance) in the past 12 months	Sex	FFP Indicators Handbook Part 1, pp. 67–69	Supplement to Part I, pp. 71
Percentage of farmers who used improved storage practices in the past 12 months	Sex		
Proportion of producers who have applied targeted improved management practices or technologies**	Commodity Sex Age (15–29, 30+) Management Practice or Technology Type	FFP Indicators Handbook Part 1, pp. 73–77	Supplement to Part I, pp. 71–72
Yield of targeted agricultural commodities within target areas[2]	Crops: commodity, farm size, sex, age (15–29, 30+) Livestock: commodity, production system, sex, age Aquaculture: commodity, sex, age	FFP Indicators Handbook Part 1, pp. 78–82	Supplement to Part I, pp. 72–74
WOMEN'S HEALTH AND NUTRITION			
Percentage of women of reproductive age consuming a diet of minimum diversity (MDD–W)	Age: <19, 19+ years	FFP Indicators Handbook Part 1, pp. 39–41	Supplement to Part I, pp. 46–47
Percent of births receiving at least four antenatal care (ANC) visits during pregnancy	None	FFP Indicators Handbook Part 1, pp. 42–43	Supplement to Part I, p. 47
Contraceptive prevalence rate (CPR)	Traditional, modern	FFP Indicators Handbook Part 1, pp. 49–50	Supplement to Part I, p. 49

Indicator	Disaggregation Level	Reference Documents	
		Indicator Description/Reference Sheet[1]	Indicator Tabulation Instructions[2]
Percent of women in union who have knowledge of modern family planning methods that can be used to delay or avoid pregnancy	Age: 15–19, 20–29 and 30–49	FFP Indicators Handbook Part 1, pp. 44–45	Supplement to Part I, pp. 47–48
Percent of women in union who made decisions about modern family planning methods in the past 12 months	Decision-making: Alone, jointly, spouse Ages: 15-19, 20-29, 30-49	FFP Indicators Handbook Part 1, pp. 46-48	Supplement to Part I, p. 48
CHILD HEALTH AND NUTRITION			
Prevalence of children 6-23 months consuming a diet of minimum diversity (MDD-C)	Sex	FFP Indicators Handbook Part 1, pp. 26-27	Supplement to Part I, pp. 32–33
Percent of children under age five (0-59 months) who had diarrhea in the prior two weeks	Sex	FFP Indicators Handbook Part 1, pp. 28-29	Supplement to Part I, pp. 33–34
Percentage of children under age five (0-59 months) with diarrhea treated with Oral Rehydration Therapy (ORT)	Sex	FFP Indicators Handbook Part 1, pp. 30-31	Supplement to Part I, p. 34
GENDER – CASH			
Percent of women/men in union who earned cash in the past 12 months	Sex Age: Female 15–19, 20–29, 30–49, ≥50; Male 15–19, 20–29, 30–49, ≥50	FFP Indicators Handbook Part 1, pp. 94–96	Supplement to Part I, p. 86
Percent of women in union and earning cash who report participation in decisions about the use of self-earned cash[4]	Age: 15–19, 20–29, 30–49, ≥50	FFP Indicators Handbook Part 1, pp. 97–98	Supplement to Part I, p. 86
Percent of women in union and earning cash who report participation in decisions about the use of spouse/partner's self-earned cash[4]	Age: 15–19, 20–29, 30–49, ≥50	FFP Indicators Handbook Part 1, pp. 99–100	Supplement to Part I, p. 86
Percent of men in union and earning cash who report spouse/partner participation in decisions about the use of self-earned cash[4]	Age: 15–19, 20–29, 30–49, ≥50	FFP Indicators Handbook Part 1, pp. 101–102	Supplement to Part I, p. 87
GENDER ACCESS TO CREDIT AND GROUP PARTICIPATION			
Percent of women/men who are members of a community group	Sex Age: Female 15–19, 20–29, 30–49, ≥50; Male 15–19, 20–29, 30–49, ≥50	FFP Indicators Handbook Part 1, pp. 108–110	Supplement to Part I, p. 93
Percent of women/men in a union with access to credit	Age: Female 15–19, 20–29, 30–49; Male 15–19, 20–29, 30–49, ≥50	FFP Indicators Handbook Part 1, pp. 104–105	Supplement to Part I, p. 92

Indicator	Disaggregation Level	Reference Documents	
		Indicator Description/Reference Sheet[1]	Indicator Tabulation Instructions[2]
Percent of women/men in a union who make decisions about credit	Decision actors: Alone, jointly Sex Age: Female 15–19, 20–29, 30–49, ≥50; Male 15–19, 20–29, 30–49, ≥50	FFP Indicators Handbook Part I, pp. 106–107	Supplement to Part I, pp. 92–93
RESILIENCE–RELATED			
Proportion of households that believe local government will respond effectively to future shocks and stresses	Gendered household type	FFP Indicators Handbook Part I, pp. 126–127	
Index of social capital at the household level	Social capital components: overall index, bonding sub-index, bridging sub-index Gendered household type	FFP Indicators Handbook Part I, pp. 117–119	Resilience and Resilience Capacities Measurement Options Full Approach Methodological Guide, pp. 29–30
Proportion of households participating in group-based savings, micro-finance or lending programs	Financing type Gendered household type	FFP Indicators Handbook Part I, pp. 115–116	Supplement to Part I, pp. 121–122

NOTES: * Following FFP indicator descriptions, FTF defines four gendered household types: households with i) female and male adults, ii) adult female, no adult male, ii) adult male, no adult female, and iv) child, no adults. USAID, 2020. Food for Peace Indicators Handbook. Part I: Indicators for Baseline and Endline Surveys for Development Food Security Activities. May.

**This applies to crops and livestock of interest. For Niger, the crops of interest are sorghum, millet, cowpeas, and peanuts. The livestock of interest are goats, sheep, and poultry.

[1] Available at: https://www.usaid.gov/food-assistance/documents/ffp-indicators-handbook-part-i-indicators-baseline-and-endline-surveys-dfsa.

[2] Available at: https://www.usaid.gov/food-assistance/documents/ffp-indicators-handbook-supplement-part-1.

[3] The survey collected information on agricultural yield; however, due to measurement challenges, particularly in relation to size of farmland and weight of livestock, no further analysis of the yield data was performed. Therefore, indicator estimates for agricultural yield are omitted from the report and Annex 5.

[4] Due to the ODK program skip logic, indicators on gender and cash could not be calculated. The program skip logic resulted with the exclusion of: (i) respondents who worked for a combination of cash and in-kind, whereas all cash earners (i.e., respondents who worked for cash OR cash and in-kind) should have been interviewed; and (2) respondents who reported not discussing their earnings with anyone, whereas information on self-earned cash decision-making should have been asked to all eligible respondents regardless of whether they discuss their earnings.

DESCRIPTION OF PROMOTED AGRICULTURAL PRACTICES

This section describes the improved agricultural practices and technologies promoted by the RFSAs in their respective implementation areas.

Table 2: Targeted Improved Crop Practices - Sorghum, Millet, Cowpeas, and Peanuts

Targeted Improved Management Practice/technology	Description
Crop genetics	
Use of improved seeds	Involves using varieties bred by local or international research institutions (e.g., ICRISAT), and private seed companies (like the seed farm Amaté) mostly for the following characteristics – yield, drought tolerance, disease resistance, ease of preservation, taste, etc.
Cultural practices/technologies	
Control of sida cordifolia growth	Sida cordifolia is an invasive weed and not palatable by animals. It is mainly found in pasture areas and animals' corridors. There are several means of control: physical, chemical, and biological. In Niger, the combination of physical and biological control is most practiced. Sida cordifolia can also serve as an indicator of soil fertility in farmland. It can be used to identify spots where the application of fertilizer can be used. Thus, this practice leverages local knowledge to manage the use of limited resources to improve agricultural productivity.
Crop rotations	Involves changing the type of crop that is grown on a piece of land in order to maintain soil fertility and/or break pest and disease cycles. In typical smallholder farming systems, cereal crops (maize, sorghum, millet) are rotated with nitrogen fixing legumes such as beans, soybeans, and groundnuts.
Crop association (inter-cropping)	Traditional farming technique that involves growing more than one crop on the same piece of land or in the same hole to mitigate some production risks (e.g., pests, drought, etc.). Examples of intercropping involve planting or cereal (e.g., millet) intercropped with a legume (such as cowpeas). Intercropped crops may be planted in the same row, alternated rows, or alternate strips.
Sowing after useful rain	In the Sahel, useful rains usually occur in the month of June and range between 15 mm and 20 mm. This practice avoids the loss of seedlings and wasted seeds. It supports a local system for monitoring rainfall and raising community awareness on climate information.
Improved pest and disease management practices/technologies	
Delay of seedlings until third or fourth rains to control pests	Agricultural technique used to prevent pest attacks which usually invade crops at the first sowing. This practice allows the farmer to save their seeds. The adoption of this practice depends on the date of rains installations as the delay must not be too long due to the short timeframe and the uncertainty of rainfall in the Sahel region.
Seed treatment with fungicides	Mixing seeds with fungicide before sowing. The technique makes it possible to prevent and fight against attacks by fungi and other parasites. It is recommended to prevent attacks of telluric parasite, and when the crawler and grasshopper attacks occur during the plant lifting.

Targeted Improved Management Practice/technology	Description
Improved soil-related fertility and conservation practices/technologies	
Zaï pits	Traditional agricultural technique used to cultivate and rehabilitate hard or heavily degraded soil. Holes are dug by hand, and are approximately 20 to 40 cm in diameter, 20 cm deep and spaced 90 cm apart. Zaï pits act as micro catchments within the field for collecting runoff water and minimizing erosion. During crop production, inputs such as fertilizers/manure, seed, water, and lime all concentrate in the prepared hole as opposed to being spread over an area in furrow cultivation. This concentration of growth enhancing factors around the plant significantly increases yield. Refers to a conservation farming technique that involves making holes in the field. During crop production, inputs such as fertilizers/manure, seed, water, and lime all concentrate in the prepared hole as opposed to being spread over an area in furrow cultivation. This concentration of growth enhancing factors around the plant significantly increases yield.
Organic manure	Use of manure for fertilization of soil. Organic manure typically refers to cow dung, chicken droppings, goat or sheep droppings or any other waste produced by domesticated animals.
Phosphatic manure	Manure composed mainly of phosphate. Natural phosphate is available and produced in the Tahoua region. Phosphate is the element which has the largest deficit in soils in Niger. Phosphorus deficiency in the soil reduces and inhibits symbiotic nitrogen fixation by legumes. On the other hand, its presence helps to facilitate growth through better metabolism of sugars at the time of reproduction, thus increasing crop yields, and quality of fruits and seeds. For cereals, it promotes the production of flowers, panicles and grains per panicle.
Compost	Use of compost for the maintenance and improvement of the structure of the soil. Compost is fermented vegetable matter which is partially decomposed by mineralizing micro-organisms. Composting is a practice of making compost from various plants.
Micro-doses of fertilizer	Localized application of a fertilizer (manure, compost, or mineral) in small quantities, most often during sowing or the very early phase of plant lifting. The input can be manual or mechanized. Fertilizer that is applied to a single planting station (i.e., hole where the seed is placed) is measured with a three-finger pinch or a soft drink/beer bottle top – level at the top as opposed to heaping (approximately 6-gram dose). This technique replaces the practice of spreading fertilizer over the entire farm. It is, therefore, less costly and allows for more efficient use of fertilizer. This technique is well-suited to millet and sorghum crops. The technology improves tolerance of sorghum and pearl millet to drought and temperature stress and can boost productivity by enhancing nutrient uptake and root and seedling growth.
Agricultural half-moons	Water catchment/water-trapping technique used to increase infiltration and retention of runoff water. Holes in the shape of a semi-circle or earth embankments are used to capture and store run-off rainwater. Half-moons can be constructed in a variety of sizes, with a range of both radius and bund dimensions. The half-moons are staggered and spaced 10 x 10 m apart. Construction is always by hand. Demi-lunes are lined with manure and compost, and seeds are placed in and around them. Half-moon is a water catchment/water-trapping technique where holes in the shape of a semi-circle or earth embankments are used to capture and store run-off rainwater. The demi-lunes are lined with manure and compost, and seeds are placed in and around them.

Targeted Improved Management Practice/technology	Description
Improved climate adaptation/climate risk management practices/technologies	
Use of climate information	Use of climate information or data (rainfall depth, occurrence of drought pockets, early installation, late rains, early withdrawal of rain) to help farmers make decisions (e.g., time of sowing, choice of varieties, labor schedules, etc.) to secure production. Climate information can also indicate whether vital infrastructure – such as roads and communications systems, essential for market access – are likely to be impacted. This information is accessible through CILSS bulletins, the National Directorate of Metrology, or for rainfall depths, locally with the installation of rain gauges. Community radios play an important role in the dissemination of information, and more recently cell phones are also used for this purpose.
Other improved practices/technologies	
Performing at least three weedings	Involves removing or suppressing weeds in a cropped piece of land using mechanical tools and equipment or hand hoeing during the rainy season (three to four months-cycle).

Table 3: Targeted Improved NRM Practices – All Farmers

Targeted Improved Natural Resource Management Practice/Technology	Description
Farmer managed natural regeneration (FMNR)	Involves farmers selecting and pruning growth from stumps of fallen but living trees, and/or seedlings that emerge naturally in a way that encourages the shoots' growth into straight tree trunks. It is a particular sub-set of agroforestry and constitutes one way of stimulating the recreation of parkland agroforestry systems where these have been degraded. It allows reforestation of soils, enrichment of fields and fights against the wind.
Delimitation of animal corridors and pasture areas	Biological or mechanical technique which makes it possible to delineate and protect grazing areas and passage corridor. The delineation and protection of transhumance corridors are increasingly seen as critical to maintaining livestock mobility in agropastoral areas by allowing passage through areas of increasing cropping pressure. This technique also aids in reducing conflicts between farmers and breeders.
Protection of ponds against silting up	Agricultural technique allowing the construction of half-moons and other soil conservation structures upstream from the water point to avoid silting up by runoff and wind.
Functional community-based conflict management mechanisms	There are two types of community-based mechanisms dedicated to conflict management: (i) informal committees established by communities themselves upon a social agreement, and (ii) formal committees so-called COFOB (community-based land commissions) established by the government and/or development partners. These community-based committees carry out sensitization around natural resources management based on law and regulations; assist farmers and herders to protect their lands/fields; and serve as the very first actors that intervene to mitigate conflicts and facilitate agreement between protagonists. Community-based approaches will empower local community groups and institutions by building capacity for managing investment decisions and project planning, execution and monitoring using a process that emphasizes inclusive participation and management.

Table 4: Targeted Improved Post-Harvest Handling and Storage Practices - Sorghum, Millet, Cowpeas and Peanuts

Post-Harvest Handling and Storage Practice/Technology	Description
Locally made storage structures such as sheet metal silos	Structure used in agriculture for the bulk storage of grain.
Sealed/airtight bags	Any storage container that can be sealed in a way that creates an airtight environment inside the container thus inhibiting spoilage.
Community storage facilities, including warehouse receipting	Community-based improved storage structures such as warehouses that inhibit spoilage and pest damage and allow farmers to deposit their surplus crops for future domestic consumption or surplus sale.
Use of solar or fuel-powered dryers to reduce post-harvest moisture	Post-harvest techniques whereby harvested crops are dried using solar of fuel-powered dryers. These techniques help reduce post-harvest loss due to growth of aflatoxin-producing and other molds.
Seed or grain treatment techniques including botanical pest control agents or phytosanitary irradiation	Pest control technique to reduce loss of seeds of grains. Botanical pest control agents are plant-based pesticides. They are considered safer/less toxic than common synthetic chemicals because they degrade rapidly from sunlight, air, proper moisture. Phytosanitary irradiation uses ionizing radiation to disinfect fruit and vegetable commodities of surface pests.
Grain treatment with agro-chemicals	Pesticides applied to protect crops from damaging influences, such as plant diseases or insects. It will protect grain from moisture and other contamination/adulteration.
Triple bags for cowpea grain preservation	Technique in which the grain is hermetically stored in two heavy-duty plastic bags that are then placed in an outer woven jute or polypropylene bad.
Other post-harvest practices that reduce pre-storage losses	Post-harvest practice other than those listed that are used to reduce post-storage losses.

Table 5: Targeted Improved Livestock Practices – Goats and Sheep

Improved Livestock Management Practice	Description
Improved fodder production	Fodder production refers to the exercise of deliberately planting certain types of grasses in your pastures to improve the quality and quantity of your natural grasslands. In this case, we want to investigate whether the farmer either used legumes or oilseeds to produce fodder (food given to livestock), or practiced veld reinforcement by planting legumes, grasses or oilseeds to increase the nitrogen content of the soil.
Use of licking and/or multi-nutritional block	Use of complementary feed for livestock that supplements the mineral and protein deficiencies of animals, especially during the dry period when the feed is poor in nutrients. The multi-nutritional block is made from local fodder such as millet stalks, pods of *Faidherbia albida,* cottonseed meal, bran, minerals, and binders (gum Arabic / cassava flour). The licking stone made locally is mainly composed of mineral salts (sodium chloride), cement, and bran.
Animal selection	The choice of the best species and the right breed depending resistant to dry conditions and the farmers' objectives (production of meat, milk, leather, etc...).
Vaccinations	Use of vaccines for livestock to prevent disease.

Improved Livestock Management Practice	Description
Antiparasitic treatments	Combat parasites through administering products by oral route (Albendazole) or injectable route (*Iver mectin,*).
Veterinary monitoring of food quality and quantity over time	Monitoring of the quantity and quality of by-products derived from animals (e.g., milk, meat, cheese).
Weight monitoring	Regular weighing of animals to assess the growth of animals against the food provided.
Optimum weight-market price criteria for the sale decision	Seeking information on livestock prices on the market through the Livestock Market Information System (SIM-B), community radios, National Network of Niger Chamber of Agriculture (RECA), etc... This assists the herder to make timely decisions about buying or selling livestock.
Use of para-veterinary services for goats and sheep	Used or consulted with public or government animal workers for veterinary services such as prevention/treatment of livestock disease, production, artificial insemination, etc.

Table 6: Targeted Improved Livestock Practices - Poultry

Targeted Improved Livestock Management Practice	Description
Use of improved poultry variety/breed	Process of choosing animals that meet the requirements of the breeding objective and will pass traits onto their progeny, e.g., choice of the best locally adaptable poultry species for egg and pulp production.
Use of improved feed	Use of a diverse, vitamin-rich diet for poultry. Generally, thus is a mixture of food rich in calcium and protein. Improved feed is expected to improve the production of eggs and pulp.
Use of improved shelters	Construction of cages, sheds, or pens (enclosures for holding livestock) using local material to house livestock. The shelter be airy and waterproof. The place should also be lit to facilitate the consumption of food for a long time.
Vaccinations	Use of vaccines for livestock to prevent disease.
Use of veterinary products and services (antibiotics, vitamins, etc.)	Used or consulted with public or government animal workers for veterinary services such as prevention/treatment of livestock disease, production, artificial insemination, etc.

DATA ANALYSIS

One dataset will be prepared for the 2020 baseline survey with a RFSA variable to facilitate analysis by RFSA area. The baseline study includes the following analyses:

- Key demographic characteristics of the study population
- Calculation of BHA indicators and disaggregation by key sub-groups as defined by BHA (e.g., gendered household type, age, sex, decision actor, etc…)
- Descriptive analyses of the components of composite indicators
- Bivariate analyses to explore associations among key variables based on the project theory of change
- Additional econometric analyses

All analyses are conducted using Stata Version 15. Results are weighted to reflect the full target population, for the combined RFSA areas and for each RFSA area separately. Details of the analyses for the baseline study are provide below.

Sociodemographic Characteristics of the Study Population

The baseline report provides an overview of the size and sociodemographic characteristics of the population in the RFSA areas. This includes the percentage and number of individuals in the following key target population groups:

- Individuals (15+ years), total and by sex
- Cash earners (15 + years), total and by sex
- Farmers (15+ years), total and by sex
- Women of reproduction age (15-49 years)
  - Married or in a union
  - With a live birth in the past 5 years
- Children under 5 years, total and by sex
- Children 6 -23 months, total and by sex

This analysis also includes the following household-level statistics:

- Average household size (number of persons)
- Average number of working age persons (15+ years) per household
- Percent of households with children under 5 years of age
- Percent of households with a child 6-23 months of age
- Percent of female-headed households
- Gendered household type (percent and number of households)

Calculation and Tabulation of Indicators

All indicators are generated using relevant sampling weights to represent the full target population and tabulated for the combined RFSA areas and for each RFSA separately as specified in Table 1. Point estimates with 95 percent confidence intervals and variance estimations using Taylor series expansion were derived for all indicators for the combined RFSA areas and for each RFSA area separately. The variance estimation considers the design effect associated with the complex sampling design.

Descriptive Analyses

Table 2 summarizes the descriptive analyses conducted for the 2020 baseline study of the BHA RFSAs in Niger.

Table 7: Summary of descriptive analyses conducted for the 2020 baseline study of the BHA RFSAs in Niger

SOCIO-DEMOGRAPHIC CHARACTERISTICS OF THE STUDY AREA
Estimated population in the DFSA areas
Household characteristics in the DFSA areas
Percentage of households receiving social assistance among direct and indirect DFSA participants, by type of assistance
FOOD CONSUMPTION
Percent of households consuming FCS food groups and frequency of consumption in days
AGRICULTURE
Percentage of farmers by age, in total and by farmers' sex, by commodity
Percentage of farmers by type of land access and farm size, in total and by farmers' sex and age
Percentage of farmers by area cultivated, in total and by farmers' sex and age, by commodity
Percentage of farmers using financial services by type of financial service, in total and by farmers' sex
Percentage of farmers who applied targeted improved post-harvest handling and storage practices, in total and by farmers' sex and age, by commodity
Percentage of farmers who applied targeted improved crop and NRM practices and technologies by type, in total and by farmers' sex and age, by commodity
Percentage of farmers who applied targeted improved livestock management practices and technologies by type, in total and by farmers' sex and age, by commodity
WATER, SANITATION, AND HYGIENE (WASH)
Household sanitation, water, and knowledge of critical moments for handwashing
MATERNAL AND CHILD HEALTH AND NUTRITION (MCHN)
Percentage of women 15-49 years of age by food groups consumed
Use of antenatal care services (ANC)
Percentage of non-pregnant women 15-49 years who are married or in a union and using a contraceptive method by type of method
Percentage of children 6-23 months by food groups consumed
GENDER ACCESS TO CREDIT AND COMMUNITY PARTICIPATION
Percentage of women and men in a union participating in community groups, by type of group
RESILIENCE
Component of household social capital index
COVID-19 AWARENESS, MITIGATION PROTOCOLS, IMPACTS, AND COPING STRATEGIES
COVID-19 awareness and adoption of COVID-19 mitigation protocols
Percentage of households who experienced COVID-19 impacts on livelihoods, by type of impact
Percentage of households who experienced COVID-19 impacts on food security, by type of impact
Coping strategies for COVID-19 impacts on livelihoods
Coping strategies for COVID-19 impacts on food security

Note: Results are provided for the combined RFSA areas and for each RFSA area separately. Sampling weights included.

Bivariate Analyses

Select bivariate analyses were conducted to explore relationships between key indicators and between indicators and important household and individual characteristics. These analyses are intended to provide useful information to help identify sub-groups on which to focus or to help inform program design by illustrating the factors that are associated with the indicators. Differences in means or proportions between groups or correlations are tested using appropriate statistical test of differences (such as t-test or chi square test). Table 3 summarizes the bivariate analyses conducted for the 2020 baseline study of the BHA RFSAs in Niger.

Table 8: Summary of bivariate analyses conducted for the 2020 baseline study of the BHA RFSAs in Niger

	Outcome indicators			Intermediate indicators	
	(I)	(II)	(III)	(IV)	(V)
	FCS	MDD-W	MDD-C	Diarrhea	Agri. practices[1]
Women's characteristics					
Age		X			
Education level		X			
Pregnancy status		X			
Participation in cash-earning activities		X			
Child's characteristics					
Sex			X		
Age			X		
Household sociodemographic characteristics					
Number of children 0-4 years	X	X	X		
Number of children 5-17 years	X	X	X		
Number of adult females	X	X	X		
Number of adult males	X	X	X		
Male-headed household	X	X	X		
Household head age in years	X	X	X		
Household head education level	X	X	X		
Gendered household type	X	X	X		
Household food security					
Food consumption score/group		X	X		
Percent of harvest completed	X	X	X		
Household WASH status					
Basic sanitation facility				X	
Water source				X	
Water treatment				X	
Handwashing station with water soap/ash/cleaning agent				X	
Knowledge of 3 of the 6 critical moments for handwashing				X	
Household livestock holding					
Household raises sheep	X	X	X		

	Outcome indicators			Intermediate indicators	
	(I)	(II)	(III)	(IV)	(V)
	FCS	MDD-W	MDD-C	Diarrhea	Agri. practices[1]
Household raises goat	X	X	X		
Household raises poultry	X	X	X		
Use of agriculture-related financial service					
Use of any agriculture-related financial service	X	X	X		X
Participation in agriculture-related savings scheme	X	X	X		X
Borrowed agricultural credit	X	X	X		X
Has agricultural insurance	X	X	X		X
Access to community-based savings or credit groups					
Participation in group-based savings, microfinance, or lending programs	X	X	X		X
Participation in group-based saving programs	X	X	X		X
Participation in group-based credit programs	X	X	X		X
Use of targeted improved crop management practices[1]					
Crop genetics practices/technologies					
Use of improved seeds	X	X	X		
Cultural practices/technologies					
Control of sida cordifolia growth	X	X	X		
Crop association	X	X	X		
Crop rotation	X	X	X		
Sowing after useful rain	X	X	X		
Improved natural resources or ecosystem management practices/technologies					
Farmer managed natural regeneration (fmnr)	X	X	X		
Delimitation of animal corridors and pasture areas	X	X	X		
Protection of ponds against silting up	X	X	X		
Functional community-based conflict management mechanisms	X	X	X		
Improved pest and disease management practices/technologies					
Delay of seedlings until third or fourth rains to control pests	X	X	X		
Seed treatment with fungicides	X	X	X		
Improved soil-related fertility and conservation practices/technologies					
Zai pits	X	X	X		
Organic manure	X	X	X		
Phosphatic manure	X	X	X		
Compost	X	X	X		
Microdoses of fertilizer	X	X	X		

	Outcome indicators			Intermediate indicators	
	(I)	(II)	(III)	(IV)	(V)
	FCS	MDD-W	MDD-C	Diarrhea	Agri. practices[1]
Improved agriculture water management non-irrigation-based practices/technologies					
Agricultural half-moons	X	X	X		
Improved climate adaptation/climate risk management practices/technologies					
Use of climate information (rain forecast, disaster risks, etc.)	X	X	X		
Improved post-harvest handling and storage practices/technologies					
Locally made storage structures such as sheet metal silos	X	X	X		
Sealed/airtight bags	X	X	X		
Community storage facilities, including warehouse receipting	X	X	X		
Use of solar or fuel-powered dryers to reduce post-harvest moisture	X	X	X		
Seed or grain treatment techniques including botanical pest control agents or phytosanitary irradiation	X	X	X		
Grain treatment with agro-chemicals	X	X	X		
Triple bags for cowpea grain preservation	X	X	X		
Other post-harvest practices that reduce pre-storage losses	X	X	X		
Other improved practices/technologies					
Performing at least three weedings	X	X	X		
Improved livestock management practices or technologies					
Improved fodder production	X	X	X		
Use of licking and/or multi-nutritional block	X	X	X		
Animal selection	X	X	X		
Vaccinations	X	X	X		
Antiparasitic treatments	X	X	X		
Veterinary monitoring of food quality and quantity over time	X	X	X		
Weight monitoring	X	X	X		
Optimum weight-market price criteria for the sale decision	X	X	X		
Use of para-veterinary services for sheep and sheep	X	X	X		
Use of improved poultry variety/breed	X	X	X		
Use of improved feed	X	X	X		
Use of improved shelters	X	X	X		
Use of veterinary products and services (antibiotics, vitamins, etc.)	X	X	X		
Exposure to COVID-19 impacts					
Household livelihood/income was impacted by COVID-19	X	X	X		

	Outcome indicators			Intermediate indicators	
	(I)	(II)	(III)	(IV)	(V)
	FCS	MDD-W	MDD-C	Diarrhea	Agri. practices[1]
Household food security was impacted by COVID-19	X	X	X		
Participation in social assistance activities					
Direct participation in RFSA activities	X	X	X	X	X
Receipt of food rations	X	X	X		
Participation in nutrition trainings/meetings	X	X	X		
Participation in agriculture-related trainings/meetings	X	X	X		X

NOTES:
[1] Bivariate analysis of each type of improved management practice was performed for each commodity separately.
Note: Results are provided for the combined RFSA areas and for each RFSA area separately. Sampling weights included. Some variables were subsequently omitted from the multivariate analyses to reduce multicollinearity.

Econometric Modeling

Multivariate analyses were performed to assess the correlates of household food consumption score (FCS), and the percentage of women achieving a diet of minimum diversity (see Table 4). Multivariate analyses of the percentage of children 6-23 months achieving a data of minimum diversity (MDD-C) was not conducted due to relatively sample size (particularly when the analyses is conducted for each RFSA area separately), and also because many of the intervention-specific indicators have low variance. These outcome indicators were selected for additional analyses to help inform the design of future interventions. Multivariate regression models included village fixed effects and key socio-economic and intervention-specific factors as covariates to explore whether intervention-specific factors may influence the outcome indicators, while controlling for background socio-economic factors and village-specific influences that are unrelated to the RFSA.

Table 9: Summary of multivariate analyses conducted for the 2020 baseline study of the BHA RFSAs in Niger

FOOD CONSUMPTION
OLS regression of household food consumption score, combined RFSA areas
OLS regression of household food consumption score, Girma RFSA areas
OLS regression of household food consumption score, Hamzari RFSA areas
OLS regression of household food consumption score, Wadata RFSA areas
MATERNAL AND CHILD HEALTH AND NUTRITION (MCHN)
Logistic regression of women's minimum dietary diversity (MDD-W), combined RFSA areas

Data Used in the Analysis

The data used in these analyses were collected in the 2020 baseline survey of the BHA RFSAs in Niger. The survey collected standard information on household and respondent characteristics; food security; adoption of improved agricultural practices and technologies; access to and use of financial services; and women's health and nutrition. The analyses are restricted to cases with complete information on the dependent and explanatory variables; cases with missing values for one or more variables are excluded.

Definitions of Variables

Dependent variables

The main outcomes of interest are the food consumption score (FCS) and the percentage of women achieving a diet of minimum diversity (MDD-W).

The survey asked respondents "How many days did you or members of your household eat [FOOD] during the past seven days both inside or outside your home?"; enumerators repeated this question foreach of the food groups relevant to this study: cereals, tubers, meat, meat, poultry, fish, dairy and milk, legumes, vegetables, and fruits.[2] The FCS is calculated as the weighted sum of those frequencies. Higher weights are assigned to more nutrition, micronutrient dense foods.[3] The resulting score ranges from 0 to 112. Using World Food Programme (WFP) thresholds households are then categorized into three FCS groups based on standard thresholds: poor food consumption (<21); borderline food consumption (21.5 – 35); and acceptable food consumption (>35).

MDD-W was calculated based on questions about the food groups consumed by the woman in the day or night prior to the interview. Each woman 15-49 years was asked "Yesterday, during the day or night, did you eat or drink any [FOOD]?"; enumerators repeated this question for each of the ten food groups relevant to this indicator. A woman is considered to achieve an MDD-W is she consumed at least 5 of the 10 food groups during the period day.

Explanatory variables

The analyses controlled for individual, household and intervention-specific factors that can influence household food consumption and women diets. The selection of covariates is based on a simplified theory of change as well as data availability. The working hypothesis for these analyses is that if household access to and use of financial services is improved and application of improved agricultural practices is enhanced, then household agricultural productivity and income will rise and improvements in food security and women diets should be achieved.

Control variables included household and individual sociodemographic characteristics such as the age, sex, and education level of the household head; gendered household type; household size; and household livestock holdings. Models of women's dietary diversity controlled for women's age, education level, pregnancy status and participation in cash-earning opportunities.

The models also control for several key interventions promoted by the RFSAs that aim to increase household food security and dietary diversity through increased food production, food availability, and economic resources: taking out an agricultural loan; participating in an ag-related savings scheme; participating in a community-based savings group; participating in a community-based credit group; and

[2] Cereals and tubers are combined under one food group as "staples." Meat, fish, and poultry are combined under one group as "Meat." For additional details refer to the FFP Indicators Handbook Part 1: Indicators for Baseline and Endline Surveys for Development Food Security Activities.

[3] For additional details refer to the FFP Indicators Handbook Part 1.

applying improved management practices (crop, NRM, post-harvest handling and storage, and livestock). These variables are included to better understand their potential role in improving food security and women diets.

This analytical approach assumes that if a single household member participates in a particular practice, e.g., taking agricultural credit, participating in group-based savings, or adopting an improved agricultural technology or technique, then the benefits of this practice accrue to the household as a whole. To conduct this analysis, information collected at the individual level was collapsed to create a single record for each household.[4] Information on livestock holdings, use of agriculture-related financial services, and the application of improved management practices was collected through interviews with individual farmers in the household, with a recall period spanning the 12 months prior to the survey.[5] A household is considered to have taken out agricultural credit or participated in an agriculture-related savings scheme if any farmer in the household reported taking out an agriculture loan or participating in an agriculture savings scheme in the 12 months prior to the survey. A household is considered to use an improved management practice if at least one farmer reported using any targeted practice for any of the crops or livestock of interest. Similarly, a household is considered to raise livestock if at least one farmer reported raising any of the livestock of interest. Participation in community-based credit and savings group was collected by asking the survey respondent whether any member of the household took out a loan or borrowed from a community-based group or held their savings in a community-based group in the 12 months prior to the survey. Because these measures were collected on the household level it was not necessary to perform any additional aggregation.

Given that data collection extended into the first week of the harvest period and food consumption including diversity of diets, is expected to be higher in the harvest period compared to the lean season, the models control for the percent of harvest completed. Dummy variables were included for participation in social assistance such as receipt of food rations, participation in nutrition and agriculture meetings and trainings. Because RFSA interventions began before the survey could be conducted, the models control for potential differences between direct and indirect RFSA participants. A dummy variable is included for households in which any member participated in the RFSA. The designation of the household as a direct beneficiary is based on the household survey respondent's reply and is not verified using project documents. Village dummy variables are included to capture variations in macro- or systems-level factors that can affect outcomes such as markets, prices, infrastructure, and availability of services (e.g., health, veterinary, extension, etc.).

The multivariate models included all variables that are expected to influence the outcome indicator regardless of the results of the bivariate associations. In some cases, associations that are statistically insignificant in the bivariate analysis can become significant in the multivariate analysis (and vice versa). Variables that are highly correlated with each other were omitted. For example, household size was included in lieu of dummies accounting for the number of adult males, adult females, children under 15 and children 15 and over.

[4] For the analyses of women's dietary diversity, this information was linked back to the household to which the woman belongs.
[5] Enumerators interviewed all farmers with access to a plot of land over which they make decisions and farmers with livestock over which they make decisions. In this study, characterizing farmers as having access to a plot of land does not require legal ownership of the land. Similarly, identifying farmers as having livestock does not require that they own the livestock, but they should be able to make decisions about their management or how to dispose, store, or sell production.

Statistical Methods

FCS was analyzed using ordinary least squares (OLS regression) technique. This method was adopted after preliminary analysis indicated that using ordered logistic regression to analyze FCS groups is not suitable because of the violation of the parallel regression assumption, and that a generalized ordered logistic regression is not suitable because there are relatively too few cases in the *poor* FCS group (n=84) compared to the other two groups (*borderline*, n=272; *acceptable*, n=1,534).

Logistic regression models were used to analyze the correlates of the percentage of women achieving a diet of minimum diversity. The results are reports as odds ratios (OR).

The overall sequence of the econometric analyses starts with a base model that includes household and individual characteristics as well as village dummies. Next, intervention-specific factors are added, first those related to access to financial services followed by adoption of improved management practices. The final model controls for participation in social assistance programs, including direct RFSA participation.

Post-estimation tests were performed to check for model misspecification and goodness of fit as well as multicollinearity. Variables were omitted to reduce collinearity and improve overall model fit.[6] The analyses account for the two-stage stratified cluster sampling design. All analyses were conducted using STATA 15.

One limitation of multivariate regression is that it does not address selection bias. The sample of households with higher FCS and the sample of women who achieve a diet of minimum diversity are not a random selection of households or individuals. Observed and unobserved heterogeneity in their characteristics results in self-selection bias. Examples of observed heterogeneity are when households with a higher FCS are systematically more likely to be educated or when women with an MDD-W are systematically more likely to participate in cash-earning opportunities. Unobserved heterogeneity arises if households that achieve an acceptable FCS are more likely to engage in risk-taking behavior (e.g., trying a new agricultural technique) or are more likely to have a growth-oriented mindset (e.g., participate in technical capacity building trainings/meetings). Thus, the positive effects of adopting intervention-specific practices, such as accessing financial services or applying improved management practices, may be overstated using ordinary multivariate regression even if these factors are controlled for because selection bias can result when the distribution of the characteristics of households with higher FCS differ from those with lower FCS. Similarly, selection bias can arise if the distribution of the characteristics of women achieving an MDD differ from those who do not.

HOUSEHOLD WEIGHTS

Household weights were applied for household level indicators derived from modules C, F, H and R and included in the construction of individual weights for all other modules.

Household design weights were calculated based on the separate sampling probabilities for each sampling stage and for each cluster (village).

P_{1hi}= first-stage sampling probability of the i-th cluster in stratum h

P_{2hi}= second-stage sampling probability within the i-th cluster (household selection).

[6] All models passed the tests of misspecification and goodness of fit with two exceptions. The model of MDD-W for the combined RFSAs and Girma do not pass the misspecification and goodness of fit tests.

The probability of selecting cluster *i* in the sample is: $P_{1hi} = \frac{m_h \times N_{hi}}{N_h} \times b_{hi}$

The second-stage probability of selecting households in cluster *i* is: $P_{2hi} = {}^{n_{hi}}/_{L_{hi}}$

Where:

m_h= number of sample clusters selected in stratum h.

N_{hi}= total households in the frame for the i-th sample cluster in stratum h.

N_h= total households in the frame in stratum h.

b_{hi}= the number of selected segments[7] divided by the total number of segments in the i-th sample cluster in stratum h

n_{hi} = number of sample households selected for the i-th sample cluster in stratum h.

L_{hi}= number of households listed in the household listing for the i-th sample cluster in stratum h.

The overall selection probability of each household in cluster *i* of stratum *h* is the product of the selection probabilities of the two (or three) stages:

$$P_{hi} = P_{1hi} \times P_{2hi} = \frac{m_h \times N_{hi}}{N_h} \times b_{hi} \times {}^{n_{hi}}/_{L_{hi}}$$

The household design weight for each household in cluster *i* of stratum *h* is the inverse of its overall selection probability:

$$W_{hi} = \frac{1}{P_{hi}} = \frac{N_h \times L_{hi}}{m_h \times N_{hi} \times n_{hi} \times b_{hi}}$$

The household sampling weight is calculated using the household design weight corrected for household non-response in each of the selected clusters. Response rates are calculated at the cluster level as ratios of the number of interviewed households divided by the number of selected households. The household sampling weight is calculated by dividing the household design weight by the household response rate.

INDIVIDUAL WEIGHTS

Individual sampling weights will be applied for indicators derived from modules D (children), E (women of reproductive age), G (farmers), J (cash earners), KF (youngest female in a union), and KM (partners of youngest female in a union). Since all eligible individuals will be selected for each Module the probability of selecting eligible individuals within sampled households is always one. Therefore, the individual weights will consist of an individual non-response adjustment only. The individual nonresponse adjustment will be applied using the inverted proportion of the total number of completed interviews for each group divided by the total number of eligible individuals for each group. This non-response adjustment is calculated at the RFSA level. The final individual weights will then be computed as the product of the household weights and the individual nonresponse adjustment.

ANNEX 5: TABULAR SUMMARY OF INDICATORS

Table 10: A5 BHA Niger Baseline Indicators - Combined BHA RFSA Areas

Table A5. BHA Niger Baseline Indicators - Combined BHA RFSA Areas
Indicators, 95% Confidence Intervals and Base Population [Niger, 2020]

	Indicator Value	Confidence Interval		Number of Records	Weighted Population	Standard Deviation	Standard Error	DEFT
		Lower	Upper					
FOOD SECURITY INDICATORS								
Percentage of households with poor food consumption score (FCS)	5.7	3.6	7.8	2,239	166,739	23.2	1.1	2.2
Male and female adults	5.6	3.1	8.0	1,919	140,416	23.1	1.2	2.3
Adult female, no adult male	8.3	4.2	12.4	204	17,548	25.7	2.0	1.1
Adult male, no adult female	2.7	-0.2	5.6	109	8,335	16.0	1.5	1.0
Child, no adults	^	^	^	7	439	^	^	^
Percentage of households with borderline FCS	16.1	12.3	19.8	2,239	166,739	36.7	1.9	2.4
Male and female adults	15.3	11.7	18.8	1,919	140,416	36.3	1.8	2.2
Adult female, no adult male	18.0	11.7	24.4	204	17,548	35.8	3.2	1.3
Adult male, no adult female	23.0	11.2	34.8	109	8,335	41.5	5.9	1.5
Child, no adults	^	^	^	7	439	^	^	^
Percentage of households with acceptable FCS	78.3	73.5	83.1	2,239	166,739	41.3	2.4	2.8
Male and female adults	79.2	74.5	83.9	1,919	140,416	41.0	2.3	2.5
Adult female, no adult male	73.7	65.6	81.8	204	17,548	41.0	4.1	1.4
Adult male, no adult female	74.3	62.5	86.1	109	8,335	43.1	5.9	1.4
Child, no adults	^	^	^	7	439	^	^	^
Food consumption score (0-112)	50.8	48.2	53.3	2,239	166,739	20.3	1.3	3.0
Male and female adults	51.2	48.6	53.7	1,919	140,416	20.4	1.3	2.8
Adult female, no adult male	47.9	44.0	51.9	204	17,548	19.6	2.0	1.5
Adult male, no adult female	50.3	44.2	56.3	109	8,335	19.8	3.0	1.6
Child, no adults	^	^	^	7	439	^	^	^
WASH INDICATORS								
Percentage of households using a basic water service	NA	NA	NA	NA	NA	NA	NA	NA
Distance/Time from service	NA	NA	NA	NA	NA	NA	NA	NA
On premises	NA	NA	NA	NA	NA	NA	NA	NA
≤ 30-minute roundtrip	NA	NA	NA	NA	NA	NA	NA	NA
Gendered household type	NA	NA	NA	NA	NA	NA	NA	NA
Male and female adults	NA	NA	NA	NA	NA	NA	NA	NA
Adult female, no adult male	NA	NA	NA	NA	NA	NA	NA	NA
Adult male, no adult female	NA	NA	NA	NA	NA	NA	NA	NA
Child, no adults	NA	NA	NA	NA	NA	NA	NA	NA
Percentage of households with access to a basic sanitation facility	5.9	3.7	8.1	2,250	167,559	23.6	1.1	2.3
Male and female adults	6.5	4.0	9.0	1,927	140,924	24.9	1.2	2.2
Adult female, no adult male	3.2	0.6	5.8	203	17,532	16.3	1.3	1.1
Adult male, no adult female	2.0	0.0	3.9	113	8,664	13.7	1.0	0.8
Child, no adults	^	^	^	7	439	^	^	^
Percentage of households with soap/ash and water at a handwashing station on premises	12.1	8.3	15.8	1,297	119,483	32.6	1.9	2.1
Male and female adults	12.2	8.3	16.0	1,087	99,780	32.3	1.9	1.9
Adult female, no adult male	8.8	1.2	16.4	132	13,027	24.7	3.8	1.8
Adult male, no adult female	16.9	3.1	30.7	73	6,277	35.0	6.9	1.7
Child, no adults	^	^	^	5	399	^	^	^
AGRICULTURAL INDICATORS								
Percentage of farmers who used financial services in the past 12 months	32.0	27.4	36.6	3,358	274,281	46.7	2.3	2.9
Male	36.5	31.1	42.0	1,773	142,052	48.6	2.7	2.4
Female	27.1	21.5	32.8	1,585	132,229	44.0	2.8	2.6
Percentage of farmers who used improved storage practices in the past 12 months	36.1	29.1	43.1	2,790	228,472	48.0	3.5	3.9
Male	42.3	35.7	48.9	1,712	137,404	49.9	3.3	2.7
Female	26.8	18.6	35.0	1,078	91,068	43.6	4.1	3.1
Proportion of producers who have applied targeted improved management practices or technologies								
Sorghum								
Crop genetics practices/technologies								
Use of improved seeds	7.7	4.6	10.8	2,203	181,596	26.7	1.6	2.7
Cultural practices/technologies								
Control of sida cordifolia growth	12.2	7.2	17.2	2,203	181,596	32.7	2.5	3.6
Crop association	49.0	40.7	57.2	2,203	181,596	50.0	4.1	3.9
Crop rotation	1.6	0.9	2.3	2,203	181,596	12.6	0.4	1.4
Sowing after useful rain	33.8	27.4	40.2	2,203	181,596	47.3	3.2	3.2
Improved natural resources or ecosystem management practices/technologies								
Farmer managed natural regeneration (fmnr)	37.4	31.1	43.6	2,203	181,596	48.4	3.1	3.0
Delimitation of animal corridors and pasture areas	35.2	27.7	42.6	2,203	181,596	47.8	3.7	3.7
Protection of ponds against silting up	6.9	4.9	8.8	2,203	181,596	25.3	1.0	1.8
Functional community-based conflict management mechanisms	3.7	1.9	5.5	2,203	181,596	18.9	0.9	2.2
Improved pest and disease management practices/technologies								
Delay of seedlings at third or fourth rains to control pests	5.9	3.4	8.5	2,203	181,596	23.7	1.3	2.5
Seed treatment with fungicides	5.1	3.3	6.8	2,203	181,596	21.9	0.9	1.9
Improved soil-related fertility and conservation practices/technologies								
Zai pits	6.1	2.3	9.9	2,203	181,596	24.0	1.9	3.7
Organic manure	64.4	58.6	70.2	2,203	181,596	47.9	2.9	2.8
Phosphatic manure	8.4	6.0	10.8	2,203	181,596	27.7	1.2	2.0

Table A5. BHA Niger Baseline Indicators - Combined BHA RFSA Areas
Indicators, 95% Confidence Intervals and Base Population [Niger, 2020]

	Indicator Value	Confidence Interval Lower	Confidence Interval Upper	Number of Records	Weighted Population	Standard Deviation	Standard Error	DEFT
Compost	23.7	15.3	32.2	2,203	181,596	42.6	4.2	4.7
Microdoses of fertilizer	2.9	1.8	4.0	2,203	181,596	16.8	0.5	1.5
Improved agriculture water management non-irrigation-based practices/technologies								
Agricultural half-moons	1.4	0.6	2.1	2,203	181,596	11.6	0.4	1.5
Improved climate adaptation/climate risk management practices/technologies								
Use of climate information (rain forecast, disaster risks, etc.)	0.9	0.3	1.4	2,203	181,596	9.2	0.3	1.5
Improved post-harvest handling and storage practices/technologies								
Locally made storage structures such as sheet metal silos	13.2	8.0	18.3	1,905	164,149	33.8	2.6	3.3
Sealed/airtight bags	4.7	3.0	6.4	1,905	164,149	21.2	0.9	1.8
Community storage facilities, including warehouse receipting	3.3	1.6	5.0	1,905	164,149	17.9	0.8	2.1
Use of solar or fuel-powered dryers to reduce post-harvest moisture	0.2	0.0	0.4	1,905	164,149	4.2	0.1	1.0
Seed or grain treatment techniques including botanical pest control agents or phytosanitary irradiation	0.3	-0.1	0.7	1,905	164,149	5.7	0.2	1.6
Grain treatment with agro-chemicals	0.7	-0.2	1.5	1,905	164,149	8.3	0.4	2.2
Triple bags for cowpea grain preservation	0.5	0.0	1.0	1,905	164,149	7.3	0.3	1.5
Other post-harvest practices that reduce pre-storage losses	2.6	1.4	3.7	1,905	164,149	15.9	0.6	1.6
Other improved practices/technologies								
Performing at least three weedings	30.4	24.6	36.2	2,203	181,596	46.0	2.9	3.0
Millet								
Crop genetics practices/technologies								
Use of improved seeds	7.6	4.6	10.6	2,663	219,159	26.5	1.5	2.9
Cultural practices/technologies								
Control of sida cordifolia growth	12.7	7.4	18.1	2,663	219,159	33.3	2.7	4.2
Crop association	49.0	41.0	57.0	2,663	219,159	50.0	4.0	4.1
Crop rotation	2.4	1.2	3.6	2,663	219,159	15.3	0.6	2.1
Sowing after useful rain	34.4	28.0	40.7	2,663	219,159	47.5	3.2	3.5
Improved natural resources or ecosystem management practices/technologies								
Farmer managed natural regeneration (fmnr)	37.2	31.3	43.0	2,663	219,159	48.3	2.9	3.1
Delimitation of animal corridors and pasture areas	33.1	25.9	40.3	2,663	219,159	47.1	3.6	3.9
Protection of ponds against silting up	6.4	4.6	8.2	2,663	219,159	24.5	0.9	1.9
Functional community-based conflict management mechanisms	3.4	1.7	5.1	2,663	219,159	18.1	0.8	2.4
Improved pest and disease management practices/technologies								
Delay of seedlings at third or fourth rains to control pests	5.1	2.9	7.2	2,663	219,159	22.0	1.1	2.5
Seed treatment with fungicides	5.0	3.3	6.6	2,663	219,159	21.7	0.8	2.0
Improved soil-related fertility and conservation practices/technologies								
Zai pits	5.8	2.4	9.3	2,663	219,159	23.5	1.7	3.8
Organic manure	60.5	55.1	65.8	2,663	219,159	48.9	2.7	2.8
Phosphatic manure	9.5	6.9	12.1	2,663	219,159	29.3	1.3	2.3
Compost	24.9	17.0	32.9	2,663	219,159	43.3	4.0	4.8
Microdoses of fertilizer	2.9	2.0	3.7	2,663	219,159	16.7	0.4	1.4
Improved agriculture water management non-irrigation-based practices/technologies								
Agricultural half-moons	1.2	0.6	1.9	2,663	219,159	11.0	0.3	1.5
Improved climate adaptation/climate risk management practices/technologies								
Use of climate information (rain forecast, disaster risks, etc.)	0.7	0.0	1.3	2,663	219,159	8.2	0.3	2.1
Improved post-harvest handling and storage practices/technologies								
Locally made storage structures such as sheet metal silos	15.1	9.3	20.9	2,517	210,550	35.8	2.9	4.1
Sealed/airtight bags	3.8	2.7	5.0	2,517	210,550	19.2	0.6	1.5
Community storage facilities, including warehouse receipting	6.0	3.2	8.7	2,517	210,550	23.7	1.4	2.9
Use of solar or fuel-powered dryers to reduce post-harvest moisture	0.4	0.1	0.8	2,517	210,550	6.7	0.2	1.4
Seed or grain treatment techniques including botanical pest control agents or phytosanitary irradiation	0.2	-0.1	0.5	2,517	210,550	4.6	0.1	1.5
Grain treatment with agro-chemicals	0.7	0.0	1.4	2,517	210,550	8.5	0.3	2.0
Triple bags for cowpea grain preservation	0.8	0.3	1.3	2,517	210,550	9.0	0.3	1.4
Other post-harvest practices that reduce pre-storage losses	3.1	1.7	4.6	2,517	210,550	17.5	0.7	2.1
Other improved practices/technologies								
Performing at least three weedings	30.9	24.7	37.2	2,663	219,159	46.2	3.1	3.5
Cowpeas								
Crop genetics practices/technologies								
Use of improved seeds	8.4	5.0	11.7	2,582	216,511	27.7	1.7	3.1
Cultural practices/technologies								
Control of sida cordifolia growth	12.4	6.9	17.8	2,582	216,511	32.9	2.7	4.2
Crop association	49.0	40.9	57.0	2,582	216,511	50.0	4.0	4.1
Crop rotation	1.9	1.0	2.7	2,582	216,511	13.5	0.4	1.7
Sowing after useful rain	33.4	26.5	40.2	2,582	216,511	47.2	3.4	3.7
Improved natural resources or ecosystem management practices/technologies								
Farmer managed natural regeneration (fmnr)	37.6	31.6	43.6	2,582	216,511	48.5	3.0	3.1
Delimitation of animal corridors and pasture areas	33.1	25.7	40.5	2,582	216,511	47.1	3.7	4.0
Protection of ponds against silting up	6.3	4.5	8.1	2,582	216,511	24.3	0.9	1.9
Functional community-based conflict management mechanisms	3.6	1.8	5.4	2,582	216,511	18.6	0.9	2.5
Improved pest and disease management practices/technologies								
Delay of seedlings at third or fourth rains to control pests	6.8	4.3	9.3	2,582	216,511	25.2	1.2	2.5
Seed treatment with fungicides	5.1	3.3	6.8	2,582	216,511	22.0	0.9	2.0
Improved soil-related fertility and conservation practices/technologies								
Zai pits	5.2	2.4	8.0	2,582	216,511	22.2	1.4	3.2
Organic manure	59.8	54.4	65.2	2,582	216,511	49.0	2.7	2.8

Table A5. BHA Niger Baseline Indicators - Combined BHA RFSA Areas
Indicators, 95% Confidence Intervals and Base Population [Niger, 2020]

	Indicator Value	Confidence Interval Lower	Confidence Interval Upper	Number of Records	Weighted Population	Standard Deviation	Standard Error	DEFT
Phosphatic manure	9.6	6.9	12.3	2,582	216,511	29.4	1.4	2.4
Compost	23.4	15.3	31.5	2,582	216,511	42.4	4.1	4.9
Microdoses of fertilizer	2.6	1.7	3.5	2,582	216,511	15.9	0.4	1.4
Improved agriculture water management non-irrigation-based practices/technologies								
Agricultural half-moons	1.6	0.9	2.4	2,582	216,511	12.6	0.4	1.5
Improved climate adaptation/climate risk management practices/technologies								
Use of climate information (rain forecast, disaster risks, etc.)	0.5	-0.1	1.2	2,582	216,511	7.4	0.3	2.2
Improved post-harvest handling and storage practices/technologies								
Locally made storage structures such as sheet metal silos	4.7	2.9	6.5	2,367	205,553	21.1	0.9	2.1
Sealed/airtight bags	8.4	5.3	11.6	2,367	205,553	27.8	1.6	2.8
Community storage facilities, including warehouse receipting	1.8	0.9	2.8	2,367	205,553	13.4	0.5	1.7
Use of solar or fuel-powered dryers to reduce post-harvest moisture	0.3	0.0	0.6	2,367	205,553	5.8	0.2	1.3
Seed or grain treatment techniques including botanical pest control agents or phytosanitary irradiation	1.0	0.1	1.9	2,367	205,553	10.1	0.5	2.2
Grain treatment with agro-chemicals	2.0	0.7	3.4	2,367	205,553	14.1	0.7	2.3
Triple bags for cowpea grain preservation	3.3	1.2	5.4	2,367	205,553	17.9	1.1	2.9
Other post-harvest practices that reduce pre-storage losses	7.2	4.2	10.3	2,367	205,553	25.9	1.5	2.9
Other improved practices/technologies								
Performing at least three weedings	29.9	23.6	36.1	2,582	216,511	45.8	3.1	3.5
Peanuts (groundnuts)								
Crop genetics practices/technologies								
Use of improved seeds	10.4	6.8	13.9	1,132	102,961	30.5	1.8	2.0
Cultural practices/technologies								
Control of sida cordifolia growth	13.6	7.4	19.8	1,132	102,961	34.3	3.1	3.1
Crop association	48.4	37.2	59.6	1,132	102,961	50.0	5.6	3.8
Crop rotation	2.4	1.0	3.7	1,132	102,961	15.2	0.7	1.5
Sowing after useful rain	33.2	24.1	42.3	1,132	102,961	47.1	4.5	3.2
Improved natural resources or ecosystem management practices/technologies								
Farmer managed natural regeneration (fmnr)	40.0	32.2	47.7	1,132	102,961	49.0	3.9	2.7
Delimitation of animal corridors and pasture areas	37.8	29.0	46.5	1,132	102,961	48.5	4.4	3.0
Protection of ponds against silting up	8.2	5.4	11.1	1,132	102,961	27.5	1.4	1.7
Functional community-based conflict management mechanisms	5.2	2.5	8.0	1,132	102,961	22.3	1.4	2.1
Improved pest and disease management practices/technologies								
Delay of seedlings at third or fourth rains to control pests	10.6	6.2	15.1	1,132	102,961	30.8	2.2	2.4
Seed treatment with fungicides	5.1	3.0	7.3	1,132	102,961	22.1	1.1	1.6
Improved soil-related fertility and conservation practices/technologies								
Zai pits	6.2	2.9	9.5	1,132	102,961	24.1	1.7	2.3
Organic manure	67.5	62.0	73.0	1,132	102,961	46.9	2.7	2.0
Phosphatic manure	11.0	7.0	15.0	1,132	102,961	31.3	2.0	2.1
Compost	27.3	17.4	37.2	1,132	102,961	44.6	5.0	3.7
Microdoses of fertilizer	3.2	2.0	4.5	1,132	102,961	17.7	0.6	1.2
Improved agriculture water management non-irrigation-based practices/technologies								
Agricultural half-moons	1.7	0.4	3.1	1,132	102,961	13.1	0.7	1.8
Improved climate adaptation/climate risk management practices/technologies								
Use of climate information (rain forecast, disaster risks, etc.)	0.4	0.0	0.8	1,132	102,961	6.5	0.2	1.1
Improved post-harvest handling and storage practices/technologies[1]								
Locally made storage structures such as sheet metal silos	3.5	1.3	5.7	998	95,470	18.5	1.1	1.9
Sealed/airtight bags	17.0	11.3	22.7	998	95,470	37.6	2.9	2.4
Community storage facilities, including warehouse receipting	2.1	0.6	3.7	998	95,470	14.5	0.8	1.7
Use of solar or fuel-powered dryers to reduce post-harvest moisture	0.7	-0.1	1.4	998	95,470	8.1	0.4	1.4
Seed or grain treatment techniques including botanical pest control agents or phytosanitary irradiation	0.5	0.0	1.0	998	95,470	6.9	0.3	1.2
Grain treatment with agro-chemicals	0.5	-0.2	1.2	998	95,470	7.0	0.4	1.6
Triple bags for cowpea grain preservation	2.4	0.5	4.4	998	95,470	15.4	1.0	2.0
Other post-harvest practices that reduce pre-storage losses	5.0	2.6	7.4	998	95,470	21.7	1.2	1.7
Other improved practices/technologies								
Performing at least three weedings	25.7	16.5	35.0	1,132	102,961	43.7	4.6	3.6
Goats								
Improved fodder production	9.3	4.3	14.3	1,316	115,035	29.0	2.5	3.1
Use of licking and/or multi-nutritional block	7.5	4.9	10.1	1,316	115,035	26.4	1.3	1.8
Animal selection	10.8	6.6	15.0	1,316	115,035	31.0	2.1	2.5
Vaccinations	36.6	32.0	41.1	1,316	115,035	48.2	2.3	1.7
Antiparasitic treatments	35.7	31.0	40.5	1,316	115,035	47.9	2.4	1.8
Veterinary monitoring of food quality and quantity over time	1.5	0.7	2.2	1,316	115,035	12.0	0.4	1.2
Weight monitoring	3.4	1.0	5.7	1,316	115,035	18.0	1.2	2.3
Optimum weight-market price criteria for the sale decision	0.5	-0.1	1.0	1,316	115,035	6.9	0.3	1.4
Use of para-veterinary services for goats and sheep	4.9	2.3	7.4	1,316	115,035	21.5	1.3	2.2
Sheep								
Improved fodder production	9.6	5.1	14.2	523	46,231	29.5	2.3	1.8
Use of licking and/or multi-nutritional block	7.6	4.9	10.3	523	46,231	26.6	1.4	1.2
Animal selection	13.6	9.1	18.1	523	46,231	34.3	2.3	1.5
Vaccinations	38.0	31.3	44.6	523	46,231	48.6	3.3	1.6
Antiparasitic treatments	39.2	32.8	45.6	523	46,231	48.9	3.2	1.5
Veterinary monitoring of food quality and quantity over time	2.4	0.9	4.0	523	46,231	15.5	0.8	1.2
Weight monitoring	3.0	0.0	6.0	523	46,231	17.0	1.5	2.0

Table A5. BHA Niger Baseline Indicators - Combined BHA RFSA Areas
Indicators, 95% Confidence Intervals and Base Population [Niger, 2020]

	Indicator Value	Confidence Interval Lower	Confidence Interval Upper	Number of Records	Weighted Population	Standard Deviation	Standard Error	DEFT
Optimum weight-market price criteria for the sale decision	0.1	0.0	0.1	523	46,231	2.3	0.0	0.4
Use of para-veterinary services for goats and sheep	8.3	4.3	12.2	523	46,231	27.6	2.0	1.6
Poultry								
Use of improved poultry variety/breed	10.3	6.4	14.3	547	46,615	30.4	2.0	1.5
Use of improved feed	9.7	4.4	15.0	547	46,615	29.6	2.7	2.1
Use of improved shelters	9.6	5.1	14.2	547	46,615	29.5	2.3	1.8
Vaccinations	17.4	11.5	23.3	547	46,615	37.9	3.0	1.8
Use of veterinary products and services (antibiotics, vitamins, etc.)	9.8	5.5	14.1	547	46,615	29.8	2.1	1.7
WOMEN'S HEALTH AND NUTRITION INDICATORS								
Percentage of women of reproductive age consuming a diet of minimum diversity (MDD-W)	44.5	39.4	49.6	2,760	205,201	49.7	2.5	2.7
15-19 years	48.5	41.3	55.7	644	44,729	51.7	3.6	1.8
20-49 years	43.4	38.3	48.5	2,116	160,472	49.1	2.6	2.4
Percent of births receiving at least 4 antenatal care (ANC) visits during pregnancy	47.8	43.8	51.8	1,725	135,562	50.0	2.0	1.7
Contraceptive prevalence rate (CPR)	16.2	13.3	19.2	1,864	138,386	36.9	1.5	1.7
Modern	14.2	11.2	17.2	1,864	138,386	34.9	1.5	1.9
Traditional	2.3	1.3	3.2	1,864	138,386	14.8	0.5	1.3
Percent of women in union who have knowledge of modern family planning methods that can be used to delay or avoid pregnancy	70.0	64.4	75.7	2,278	172,782	45.8	2.9	3.0
15-19 years	59.2	50.2	68.2	306	23,247	49.2	4.5	1.6
20-29 years	72.2	65.9	78.6	926	70,626	44.8	3.2	2.2
30-49 years	71.3	64.7	77.9	1,046	78,909	45.3	3.3	2.4
Percent of women in union who made decisions about modern family planning methods in the past 12 months	77.8	69.8	85.8	387	29,553	41.6	4.0	1.9
Decision Actors								
Alone	39.0	29.6	48.3	387	29,553	48.8	4.7	1.9
Jointly	38.8	29.5	48.2	387	29,553	48.8	4.7	1.9
Age								
15-19 years				26	2,119			
20-29 years	76.6	65.0	88.2	191	14,914	42.5	5.8	1.9
30-49 years	76.1	67.6	84.7	170	12,520	42.7	4.3	1.3
CHILDREN'S HEALTH AND NUTRITION INDICATORS								
Percentage of children 6-23 months consuming a diet of minimum dietary diversity (MDD-C)	42.9	37.5	48.3	834	61,232	49.5	2.7	1.6
Male	41.7	36.1	47.3	423	31,971	49.0	2.8	1.2
Female	44.2	36.2	52.2	411	29,261	50.6	4.0	1.6
Percentage of children under age 5 with diarrhea in the last two weeks (Total)	32.3	29.5	35.0	3,106	231,243	46.8	1.4	1.6
Male	33.7	30.5	36.9	1,537	114,670	47.2	1.6	1.3
Female	30.9	27.1	34.7	1,569	116,572	46.3	1.9	1.6
Percentage of children under age 5 with diarrhea treated with ORT (Total)	47.7	40.0	55.5	962	74,619	50.0	3.9	2.4
Male	44.6	34.6	54.6	494	38,622	48.8	5.0	2.3
Female	51.1	44.6	57.6	468	35,997	49.4	3.3	1.4
GENDER - CASH								
Percent of women/men in union who earned cash in the past 12 months								
Male	61.3	55.5	67.1	2,149	176,185	48.7	2.9	2.8
15-19 years	^	^	^	29	3,264	^	^	^
20-29 years	63.6	54.8	72.4	367	31,810	46.8	4.4	1.8
30-49 years	67.4	62.1	72.7	1,078	87,776	47.1	2.6	1.8
≥50 years	52.0	44.4	59.7	675	53,336	50.9	3.8	2.0
Female	32.8	28.5	37.0	2,831	217,288	46.9	2.1	2.4
15-19 years	18.3	11.3	25.2	358	28,027	38.3	3.5	1.7
20-29 years	27.8	23.0	32.6	985	76,204	44.6	2.4	1.7
30-49 years	41.6	36.9	46.2	1,113	84,826	49.5	2.3	1.6
≥50 years	34.0	27.1	41.0	375	28,231	47.9	3.5	1.4
Percent of women in union and earning cash who report participation in decisions about the use of self-earned cash	NA	NA	NA	NA	NA	NA	NA	NA
15-19 years	NA	NA	NA	NA	NA	NA	NA	NA
20-29 years	NA	NA	NA	NA	NA	NA	NA	NA
30-49 years	NA	NA	NA	NA	NA	NA	NA	NA
≥50 years	NA	NA	NA	NA	NA	NA	NA	NA
Percent of women in union and earning cash who report participation in decisions about the use of spouse/partner's self-earned cash	NA	NA	NA	NA	NA	NA	NA	NA
15-19 years	NA	NA	NA	NA	NA	NA	NA	NA
20-29 years	NA	NA	NA	NA	NA	NA	NA	NA
30-49 years	NA	NA	NA	NA	NA	NA	NA	NA
≥50 years	NA	NA	NA	NA	NA	NA	NA	NA
Percent of men in union and earning cash who report spouse/partner participation in decisions about the use of self-earned cash	NA	NA	NA	NA	NA	NA	NA	NA
15-19 years	NA	NA	NA	NA	NA	NA	NA	NA
20-29 years	NA	NA	NA	NA	NA	NA	NA	NA
30-49 years	NA	NA	NA	NA	NA	NA	NA	NA
≥50 years	NA	NA	NA	NA	NA	NA	NA	NA
GENDER - CREDIT AND GROUP PARTICIPATION								
Percent of women/men who are members of a community group								
Male	58.2	53.2	63.3	1,685	146,631	49.3	2.5	2.1
15-19 years	^	^	^	7	491	^	^	^
20-29 years	52.8	45.3	60.3	256	24,358	47.8	3.8	1.3
30-49 years	58.1	52.4	63.7	894	77,305	49.5	2.8	1.7
≥50 years	61.8	55.1	68.4	528	44,478	49.4	3.3	1.5
Female	43.5	38.3	48.6	1,981	154,680	49.6	2.6	2.3
15-19 years	37.8	30.3	45.3	290	21,401	49.9	3.8	1.3
20-29 years	43.5	37.2	49.7	783	60,404	49.9	3.1	1.8
30-49 years	45.1	39.0	51.2	714	57,136	49.2	3.1	1.7

Table A5. BHA Niger Baseline Indicators - Combined BHA RFSA Areas
Indicators, 95% Confidence Intervals and Base Population [Niger, 2020]

	Indicator Value	Confidence Interval Lower	Confidence Interval Upper	Number of Records	Weighted Population	Standard Deviation	Standard Error	DEFT
≥50 years	45.4	34.0	56.8	194	15,739	48.9	5.7	1.6
Percent of women/men in a union with access to credit								
Male	72.4	67.9	76.9	1,685	146,631	44.7	2.3	2.1
15-19 years	^	^	^	7	491	^	^	^
20-29 years	69.4	60.0	78.8	256	24,358	44.1	4.7	1.7
30-49 years	75.3	70.2	80.4	894	77,305	43.3	2.6	1.8
≥50 years	68.9	61.8	76.0	528	44,478	47.0	3.6	1.7
Female	61.7	56.3	67.1	1,981	154,680	48.6	2.7	2.5
15-19 years	46.5	38.4	54.6	290	21,401	51.3	4.1	1.3
20-29 years	61.9	54.5	69.3	783	60,404	48.9	3.7	2.1
30-49 years	68.0	62.3	73.8	714	57,136	46.1	2.9	1.7
≥50 years	58.6	50.2	67.1	194	15,739	48.3	4.3	1.2
Percent of men in a union who make decisions about credit	92.0	88.9	95.1	1,200	106,185	27.1	1.5	2.0
Decision Actors								
Alone	58.2	52.6	63.9	1,200	106,185	49.3	2.9	2.0
Jointly	33.8	28.3	39.3	1,200	106,185	47.3	2.8	2.0
Age								
15-19 years	^	^	^	6	403	^	^	^
20-29 years	84.5	77.1	91.8	174	16,900	36.3	3.7	1.3
30-49 years	93.8	90.9	96.7	665	58,220	24.1	1.5	1.6
≥50 years	92.9	88.6	97.1	355	30,661	25.8	2.1	1.6
Percent of women in a union who make decisions about credit	71.1	67.3	75.0	1,204	95,444	45.3	1.9	1.5
Decision Actors								
Alone	33.8	27.0	40.5	1,204	95,444	47.3	3.4	2.5
Jointly	37.3	31.1	43.6	1,204	95,444	48.4	3.1	2.3
Age								
15-19 years	52.3	36.4	68.2	140	9,951	50.1	8.0	1.9
20-29 years	70.7	65.7	75.6	487	37,384	45.6	2.5	1.2
30-49 years	73.8	66.2	81.4	466	38,880	44.0	3.8	1.9
≥50 years	81.8	74.7	89.0	111	9,231	38.7	3.5	1.0
RESILIENCE-RELATED								
Proportion of households that believe local government will respond effectively to future shocks and stresses	61.2	55.4	67.0	2,254	167,899	48.8	2.9	2.8
Male and female adults	60.7	54.8	66.6	1,930	141,248	49.3	3.0	2.6
Adult female, no adult male	66.0	55.8	76.1	204	17,548	44.1	5.1	1.6
Adult male, no adult female	60.4	45.4	75.4	113	8,664	48.2	7.5	1.7
Child, no adults	^	^	^	7	439	^	^	^
Index of social capital at the household level (overall index)	53.2	48.9	57.4	2,254	167,899	39.0	2.1	2.6
Male and female adults	53.2	49.1	57.3	1,930	141,248	39.8	2.1	2.3
Adult female, no adult male	50.6	42.6	58.5	204	17,548	34.6	4.0	1.7
Adult male, no adult female	59.5	50.1	68.8	113	8,664	35.0	4.7	1.4
Child, no adults	^	^	^	7	439	^	^	^
Component								
Bonding sub-index	57.6	53.1	62.1	2,254	167,899	42.2	2.3	2.5
Bridging sub-index	48.8	44.6	53.0	2,254	167,899	41.5	2.1	2.4
Proportion of households participating in group-based savings, micro-finance or lending programs	8.8	5.0	12.6	2,254	167,899	28.3	1.9	3.2
Male and female adults	9.2	5.4	13.0	1,930	141,248	29.2	1.9	2.9
Adult female, no adult male	10.0	2.7	17.2	204	17,548	27.9	3.6	1.9
Adult male, no adult female	0.4	-0.4	1.3	113	8,664	6.4	0.4	0.7
Child, no adults	^	^	^	7	439	^	^	^
Financing type								
Savings	7.3	3.8	10.8	2,254	167,899	26.0	1.8	3.2
Credit	3.7	1.8	5.6	2,254	167,899	18.8	0.9	2.4

NA : Not available
^ Results not statistically reliable, n<30.
NOTES:
[1] Number of records for improved storage practices may differ from that of other improved agricultural practices because questions on the use of improved practices were generally asked as part of the main agriculture module while questions on the use of improved storage practices were asked seperately as part of the module on crop yield. The numbers of responding farmers differ across the two modules.

Table 11: A5 BHA Niger Baseline Indicators - Girma

Table A5. BHA Niger Baseline Indicators - Girma
Indicators, 95% Confidence Intervals and Base Population [Niger, 2020]

	Indicator Value	Confidence Interval Lower	Confidence Interval Upper	Number of Records	Weighted Population	Standard Deviation	Standard Error	DEFT
FOOD SECURITY INDICATORS								
Percentage of households with poor food consumption score (FCS)	5.8	2.6	9.0	766	98,325	23.4	1.5	1.8
Male and female adults	5.9	2.2	9.7	650	82,480	23.8	1.8	2.0
Adult female, no adult male	7.1	1.5	12.6	76	10,900	24.3	2.7	1.0
Adult male, no adult female	1.6	-0.9	4.0	38	4,737	12.6	1.2	0.6
Child, no adults	^	^	^	2	208	^	^	^
Percentage of households with borderline FCS	18.5	12.2	24.9	766	98,325	38.9	3.1	2.2
Male and female adults	17.6	11.7	23.6	650	82,480	38.4	2.9	1.9
Adult female, no adult male	19.2	9.5	29.0	76	10,900	37.3	4.7	1.1
Adult male, no adult female	28.9	9.9	48.0	38	4,737	46.1	9.2	1.2
Child, no adults	^	^	^	2	208	^	^	^
Percentage of households with acceptable FCS	75.6	67.8	83.5	766	98,325	43.0	3.8	2.4
Male and female adults	76.4	68.8	84.0	650	82,480	42.7	3.7	2.2

Table A5. BHA Niger Baseline Indicators - Girma

Indicators, 95% Confidence Intervals and Base Population [Niger, 2020]

	Indicator Value	Confidence Interval Lower	Confidence Interval Upper	Number of Records	Weighted Population	Standard Deviation	Standard Error	DEFT
Adult female, no adult male	73.7	61.4	86.1	76	10,900	41.7	6.0	1.3
Adult male, no adult female	69.5	50.7	88.3	38	4,737	46.8	9.1	1.2
Child, no adults	^	^	^	2	208	^	^	^
Food consumption score	48.3	44.2	52.4	766	98,325	19.4	2.0	2.8
Male and female adults	48.4	44.3	52.5	650	82,480	19.3	2.0	2.6
Adult female, no adult male	46.5	40.7	52.3	76	10,900	18.6	2.8	1.3
Adult male, no adult female	51.8	41.8	61.9	38	4,737	22.7	4.9	1.3
Child, no adults	^	^	^	2	208	^	^	^
WASH INDICATORS								
Percentage of households using a basic water service	NA	NA	NA	NA	NA	NA	NA	NA
Distance/Time from service	NA	NA	NA	NA	NA	NA	NA	NA
On premises	NA	NA	NA	NA	NA	NA	NA	NA
≤ 30-minute roundtrip	NA	NA	NA	NA	NA	NA	NA	NA
Gendered household type	NA	NA	NA	NA	NA	NA	NA	NA
Male and female adults	NA	NA	NA	NA	NA	NA	NA	NA
Adult female, no adult male	NA	NA	NA	NA	NA	NA	NA	NA
Adult male, no adult female	NA	NA	NA	NA	NA	NA	NA	NA
Child, no adults	NA	NA	NA	NA	NA	NA	NA	NA
Percentage of households with access to a basic sanitation facility	4.5	2.0	7.1	765	98,093	20.8	1.2	1.6
Male and female adults	5.1	2.3	8.0	649	82,248	22.2	1.4	1.6
Adult female, no adult male	1.6	-1.6	4.8	76	10,900	12.0	1.5	1.1
Adult male, no adult female	0.7	-0.8	2.2	38	4,737	8.4	0.7	0.5
Child, no adults	^	^	^	2	208	^	^	^
Percentage of households with soap/ash and water at a handwashing station on premises	8.9	4.0	13.8	674	86,050	28.5	2.4	2.2
Male and female adults	8.7	4.0	13.4	580	72,798	28.4	2.3	1.9
Adult female, no adult male	6.8	-3.6	17.2	61	9,133	23.3	5.0	1.7
Adult male, no adult female	17.6	-3.6	38.8	31	3,911	38.5	10.3	1.5
Child, no adults	^	^	^	2	208	^	^	^
AGRICULTURAL INDICATORS								
Percentage of farmers who used financial services in the past 12 months	36.6	29.7	43.5	1,201	171,009	48.2	3.3	2.4
Male	41.2	32.6	49.7	632	86,232	50.3	4.1	2.1
Female	31.9	23.7	40.2	569	84,778	45.6	4.0	2.1
Percentage of farmers who used improved storage practices in the past 12 months	27.5	19.5	35.5	1,000	141,897	44.7	3.9	2.8
Male	33.8	25.9	41.7	606	83,394	48.3	3.8	1.9
Female	18.5	9.8	27.2	394	58,503	37.9	4.2	2.2
Proportion of producers who have applied targeted improved management practices or technologies								
Sorghum								
Crop genetics practices/technologies								
Use of improved seeds	8.7	4.6	12.8	785	114,039	28.1	2.0	2.0
Cultural practices/technologies								
Control of sida cordifolia growth	14.2	7.2	21.2	785	114,039	34.9	3.4	2.7
Crop association	48.6	36.3	60.9	785	114,039	50.0	6.0	3.3
Crop rotation	1.4	0.4	2.5	785	114,039	11.9	0.5	1.2
Sowing after useful rain	37.1	27.6	46.6	785	114,039	48.3	4.6	2.7
Improved natural resources or ecosystem management practices/technologies								
Farmer managed natural regeneration (fmnr)	42.4	33.8	51.0	785	114,039	49.5	4.2	2.4
Delimitation of animal corridors and pasture areas	38.8	26.6	50.9	785	114,039	48.8	5.9	3.4
Protection of ponds against silting up	5.8	3.3	8.3	785	114,039	23.4	1.2	1.5
Functional community-based conflict management mechanisms	4.6	1.8	7.5	785	114,039	21.1	1.4	1.9
Improved pest and disease management practices/technologies								
Delay of seedlings at third or fourth rains to control pests	7.0	3.1	11.0	785	114,039	25.6	1.9	2.1
Seed treatment with fungicides	1.8	0.6	2.9	785	114,039	13.2	0.6	1.2
Improved soil-related fertility and conservation practices/technologies								
Zai pits	6.0	0.3	11.7	785	114,039	23.7	2.8	3.3
Organic manure	65.4	57.6	73.2	785	114,039	47.6	3.8	2.2
Phosphatic manure	8.4	4.7	12.1	785	114,039	27.8	1.8	1.8
Compost	27.6	14.4	40.9	785	114,039	44.7	6.4	4.0
Microdoses of fertilizer	2.8	1.3	4.3	785	114,039	16.5	0.7	1.2
Improved agriculture water management non-irrigation-based practices/technologies								
Agricultural half-moons	1.5	0.4	2.6	785	114,039	12.0	0.5	1.2
Improved climate adaptation/climate risk management practices/technologies								
Use of climate information (rain forecast, disaster risks, etc.)	0.8	0.0	1.6	785	114,039	9.0	0.4	1.2
Improved post-harvest handling and storage practices/technologies								
Locally made storage structures such as sheet metal silos	2.4	0.9	3.9	753	109,002	15.3	0.7	1.3
Sealed/airtight bags	3.0	0.8	5.2	753	109,002	17.1	1.1	1.7
Community storage facilities, including warehouse receipting	3.1	0.7	5.5	753	109,002	17.4	1.2	1.8
Use of solar or fuel-powered dryers to reduce post-harvest moisture	0.1	-0.1	0.3	753	109,002	3.0	0.1	0.8
Seed or grain treatment techniques including botanical pest control agents or phytosanitary irradiation	0.5	-0.1	1.1	753	109,002	7.0	0.3	1.2
Grain treatment with agro-chemicals	0.9	-0.4	2.2	753	109,002	9.3	0.6	1.8
Triple bags for cowpea grain preservation	0.0			753	109,002	0.0		0.0
Other post-harvest practices that reduce pre-storage losses	3.0	1.5	4.5	753	109,002	17.0	0.7	1.2
Other improved practices/technologies								
Performing at least three weedings	35.8	28.1	43.6	785	114,039	48.0	3.8	2.2
Millet								
Crop genetics practices/technologies								

Table A5. BHA Niger Baseline Indicators - Girma

Indicators, 95% Confidence Intervals and Base Population [Niger, 2020]

	Indicator Value	Confidence Interval Lower	Confidence Interval Upper	Number of Records	Weighted Population	Standard Deviation	Standard Error	DEFT
Use of improved seeds	8.6	4.7	12.5	968	137,803	28.1	1.9	2.1
Cultural practices/technologies								
Control of sida cordifolia growth	14.5	6.8	22.1	968	137,803	35.2	3.7	3.3
Crop association	48.2	36.4	60.0	968	137,803	50.0	5.7	3.6
Crop rotation	1.4	0.1	2.7	968	137,803	11.8	0.6	1.6
Sowing after useful rain	36.6	27.8	45.3	968	137,803	48.2	4.2	2.7
Improved natural resources or ecosystem management practices/technologies								
Farmer managed natural regeneration (fmnr)	42.9	35.2	50.6	968	137,803	49.5	3.7	2.3
Delimitation of animal corridors and pasture areas	36.5	24.8	48.2	968	137,803	48.2	5.7	3.7
Protection of ponds against silting up	5.4	3.0	7.8	968	137,803	22.6	1.2	1.6
Functional community-based conflict management mechanisms	4.3	1.6	7.1	968	137,803	20.4	1.3	2.0
Improved pest and disease management practices/technologies								
Delay of seedlings at third or fourth rains to control pests	5.9	2.6	9.3	968	137,803	23.6	1.6	2.1
Seed treatment with fungicides	2.1	0.7	3.5	968	137,803	14.4	0.7	1.5
Improved soil-related fertility and conservation practices/technologies								
Zai pits	5.1	0.3	9.9	968	137,803	22.0	2.3	3.3
Organic manure	61.1	53.9	68.2	968	137,803	48.8	3.5	2.2
Phosphatic manure	8.8	5.5	12.1	968	137,803	28.3	1.6	1.7
Compost	27.3	15.0	39.6	968	137,803	44.6	6.0	4.2
Microdoses of fertilizer	2.3	1.3	3.4	968	137,803	15.1	0.5	1.1
Improved agriculture water management non-irrigation-based practices/technologies								
Agricultural half-moons	1.3	0.4	2.2	968	137,803	11.3	0.4	1.2
Improved climate adaptation/climate risk management practices/technologies								
Use of climate information (rain forecast, disaster risks, etc.)	0.7	-0.3	1.7	968	137,803	8.2	0.5	1.9
Improved post-harvest handling and storage practices/technologies								
Locally made storage structures such as sheet metal silos	3.7	1.7	5.8	954	135,440	19.0	1.0	1.6
Sealed/airtight bags	2.0	1.0	2.9	954	135,440	14.0	0.5	1.0
Community storage facilities, including warehouse receipting	6.6	2.3	10.8	954	135,440	24.8	2.1	2.6
Use of solar or fuel-powered dryers to reduce post-harvest moisture	0.5	0.0	1.1	954	135,440	7.4	0.3	1.1
Seed or grain treatment techniques including botanical pest control agents or phytosanitary irradiation	0.2	-0.2	0.7	954	135,440	4.9	0.2	1.3
Grain treatment with agro-chemicals	0.9	-0.2	2.0	954	135,440	9.4	0.5	1.7
Triple bags for cowpea grain preservation	0.1	-0.1	0.4	954	135,440	3.4	0.1	1.1
Other post-harvest practices that reduce pre-storage losses	3.9	1.8	6.0	954	135,440	19.3	1.0	1.6
Other improved practices/technologies								
Performing at least three weedings	35.1	27.1	43.1	968	137,803	47.7	3.9	2.5
Cowpeas								
Crop genetics practices/technologies								
Use of improved seeds	9.9	5.3	14.6	961	138,240	29.9	2.3	2.3
Cultural practices/technologies								
Control of sida cordifolia growth	14.1	6.4	21.9	961	138,240	34.9	3.8	3.3
Crop association	48.9	37.2	60.7	961	138,240	50.0	5.7	3.5
Crop rotation	1.2	0.3	2.0	961	138,240	10.9	0.4	1.2
Sowing after useful rain	35.4	25.8	45.0	961	138,240	47.8	4.6	3.0
Improved natural resources or ecosystem management practices/technologies								
Farmer managed natural regeneration (fmnr)	42.5	34.8	50.3	961	138,240	49.5	3.8	2.4
Delimitation of animal corridors and pasture areas	36.5	24.5	48.5	961	138,240	48.2	5.8	3.7
Protection of ponds against silting up	5.2	2.9	7.6	961	138,240	22.2	1.1	1.6
Functional community-based conflict management mechanisms	4.4	1.6	7.3	961	138,240	20.6	1.4	2.1
Improved pest and disease management practices/technologies								
Delay of seedlings at third or fourth rains to control pests	7.5	3.8	11.2	961	138,240	26.4	1.8	2.1
Seed treatment with fungicides	2.1	0.6	3.6	961	138,240	14.3	0.7	1.6
Improved soil-related fertility and conservation practices/technologies								
Zai pits	4.0	0.5	7.5	961	138,240	19.6	1.7	2.7
Organic manure	60.0	52.7	67.2	961	138,240	49.0	3.5	2.2
Phosphatic manure	8.7	5.2	12.2	961	138,240	28.2	1.7	1.9
Compost	25.8	13.3	38.2	961	138,240	43.8	6.0	4.3
Microdoses of fertilizer	2.2	1.0	3.4	961	138,240	14.6	0.6	1.2
Improved agriculture water management non-irrigation-based practices/technologies								
Agricultural half-moons	2.0	0.8	3.1	961	138,240	13.9	0.6	1.2
Improved climate adaptation/climate risk management practices/technologies								
Use of climate information (rain forecast, disaster risks, etc.)	0.5	-0.5	1.5	961	138,240	7.0	0.5	2.1
Improved post-harvest handling and storage practices/technologies								
Locally made storage structures such as sheet metal silos	1.7	0.2	3.2	951	136,460	12.9	0.7	1.7
Sealed/airtight bags	4.0	1.7	6.3	951	136,460	19.5	1.1	1.8
Community storage facilities, including warehouse receipting	0.7	0.0	1.3	951	136,460	8.1	0.3	1.2
Use of solar or fuel-powered dryers to reduce post-harvest moisture	0.3	-0.1	0.7	951	136,460	5.4	0.2	1.2
Seed or grain treatment techniques including botanical pest control agents or phytosanitary irradiation	1.3	-0.1	2.7	951	136,460	11.5	0.7	1.8
Grain treatment with agro-chemicals	1.4	-0.2	3.0	951	136,460	11.8	0.8	2.0
Triple bags for cowpea grain preservation	1.1	-0.2	2.5	951	136,460	10.6	0.7	1.9
Other post-harvest practices that reduce pre-storage losses	9.7	5.0	14.4	951	136,460	29.6	2.3	2.4
Other improved practices/technologies								
Performing at least three weedings	33.3	25.4	41.3	961	138,240	47.2	3.9	2.5
Peanuts (groundnuts)								

Table A5. BHA Niger Baseline Indicators - Girma

Indicators, 95% Confidence Intervals and Base Population [Niger, 2020]

	Indicator Value	Confidence Interval Lower	Confidence Interval Upper	Number of Records	Weighted Population	Standard Deviation	Standard Error	DEFT
Crop genetics practices/technologies								
Use of improved seeds	9.9	6.3	13.4	444	72,854	29.9	1.7	1.2
Cultural practices/technologies								
Control of sida cordifolia growth	12.3	4.6	20.1	444	72,854	32.9	3.7	2.4
Crop association	44.8	29.6	60.0	444	72,854	49.8	7.3	3.1
Crop rotation	1.0	-0.7	2.6	444	72,854	9.8	0.8	1.7
Sowing after useful rain	31.3	20.1	42.6	444	72,854	46.4	5.4	2.5
Improved natural resources or ecosystem management practices/technologies								
Farmer managed natural regeneration (fmnr)	46.0	36.3	55.6	444	72,854	49.9	4.7	2.0
Delimitation of animal corridors and pasture areas	38.6	26.4	50.9	444	72,854	48.7	5.9	2.6
Protection of ponds against silting up	6.3	2.9	9.7	444	72,854	24.3	1.6	1.4
Functional community-based conflict management mechanisms	6.2	2.3	10.0	444	72,854	24.1	1.9	1.6
Improved pest and disease management practices/technologies								
Delay of seedlings at third or fourth rains to control pests	12.0	5.8	18.1	444	72,854	32.5	3.0	1.9
Seed treatment with fungicides	2.2	0.3	4.0	444	72,854	14.6	0.9	1.3
Improved soil-related fertility and conservation practices/technologies								
Zai pits	4.3	0.4	8.3	444	72,854	20.4	1.9	2.0
Organic manure	65.5	58.4	72.5	444	72,854	47.6	3.4	1.5
Phosphatic manure	9.3	5.0	13.6	444	72,854	29.1	2.1	1.5
Compost	27.2	13.3	41.1	444	72,854	44.5	6.7	3.2
Microdoses of fertilizer	2.5	1.0	3.9	444	72,854	15.6	0.7	1.0
Improved agriculture water management non-irrigation-based practices/technologies								
Agricultural half-moons	1.8	-0.2	3.7	444	72,854	13.2	0.9	1.5
Improved climate adaptation/climate risk management practices/technologies								
Use of climate information (rain forecast, disaster risks, etc.)	0.0			444	72,854	0.0		0.0
Improved post-harvest handling and storage practices/technologies								
Locally made storage structures such as sheet metal silos	2.2	-0.4	4.9	422	69,663	14.8	1.3	1.8
Sealed/airtight bags	12.8	8.3	17.4	422	69,663	33.5	2.2	1.4
Community storage facilities, including warehouse receipting	0.9	-0.7	2.5	422	69,663	9.3	0.8	1.7
Use of solar or fuel-powered dryers to reduce post-harvest moisture	0.7	-0.3	1.7	422	69,663	8.5	0.5	1.2
Seed or grain treatment techniques including botanical pest control agents or phytosanitary irradiation	0.3	-0.3	1.0	422	69,663	5.6	0.3	1.1
Grain treatment with agro-chemicals	0.5	-0.5	1.5	422	69,663	6.9	0.5	1.4
Triple bags for cowpea grain preservation	1.1	-0.1	2.4	422	69,663	10.6	0.6	1.1
Other post-harvest practices that reduce pre-storage losses	6.1	2.7	9.4	422	69,663	23.9	1.6	1.4
Other improved practices/technologies								
Performing at least three weedings	24.4	13.1	35.6	444	72,854	43.0	5.4	2.7
Goats								
Improved fodder production	11.0	3.7	18.4	526	77,859	31.4	3.6	2.6
Use of licking and/or multi-nutritional block	7.4	4.0	10.7	526	77,859	26.1	1.6	1.4
Animal selection	12.2	6.0	18.5	526	77,859	32.8	3.0	2.1
Vaccinations	37.5	31.3	43.7	526	77,859	48.5	3.0	1.4
Antiparasitic treatments	38.2	31.6	44.7	526	77,859	48.6	3.2	1.5
Veterinary monitoring of food quality and quantity over time	1.2	0.2	2.2	526	77,859	10.8	0.5	1.0
Weight monitoring	4.0	0.6	7.5	526	77,859	19.7	1.7	2.0
Optimum weight-market price criteria for the sale decision	0.3	-0.3	0.9	526	77,859	5.5	0.3	1.2
Use of para-veterinary services for goats and sheep	6.5	2.7	10.2	526	77,859	24.6	1.8	1.7
Sheep								
Improved fodder production	11.5	4.5	18.6	197	29,734	32.0	3.4	1.5
Use of licking and/or multi-nutritional block	7.4	4.0	10.7	197	29,734	26.2	1.6	0.9
Animal selection	16.7	9.9	23.6	197	29,734	37.4	3.3	1.2
Vaccinations	37.8	28.3	47.3	197	29,734	48.6	4.6	1.3
Antiparasitic treatments	43.2	33.4	53.0	197	29,734	49.7	4.7	1.3
Veterinary monitoring of food quality and quantity over time	2.3	0.0	4.6	197	29,734	15.1	1.1	1.0
Weight monitoring	3.5	-1.2	8.3	197	29,734	18.5	2.3	1.7
Optimum weight-market price criteria for the sale decision	0.0			197	29,734	0.0		0.0
Use of para-veterinary services for goats and sheep	11.7	5.8	17.7	197	29,734	32.3	2.9	1.3
Poultry								
Use of improved poultry variety/breed	11.2	5.4	17.1	223	29,967	31.6	2.8	1.3
Use of improved feed	10.7	2.7	18.8	223	29,967	31.0	3.9	1.9
Use of improved shelters	10.7	3.9	17.4	223	29,967	30.9	3.3	1.6
Vaccinations	18.8	10.1	27.6	223	29,967	39.2	4.3	1.6
Use of veterinary products and services (antibiotics, vitamins, etc.)	9.8	3.4	16.2	223	29,967	29.8	3.1	1.6
WOMEN'S HEALTH AND NUTRITION INDICATORS								
Percentage of women of reproductive age consuming a diet of minimum diversity (MDD-W)	44.5	36.6	52.4	783	110,362	49.7	3.8	2.2
15-19 years	52.2	39.8	64.5	144	20,703	49.5	6.0	1.5
20-49 years	42.7	34.9	50.5	639	89,659	49.6	3.8	1.9
Percent of births receiving at least 4 antenatal care (ANC) visits during pregnancy	48.4	42.9	54.0	565	79,721	50.0	2.7	1.3
Contraceptive prevalence rate (CPR)	14.8	10.6	19.0	560	76,936	35.5	2.0	1.4
Modern	12.7	8.2	17.2	560	76,936	33.3	2.2	1.5
Traditional	2.5	1.0	3.9	560	76,936	15.5	0.7	1.1
Percent of women in union who have knowledge of modern family planning methods that can be used to delay or avoid pregnancy	71.6	62.5	80.7	694	97,510	45.1	4.4	2.6
15-19 years	63.2	48.5	78.0	88	13,086	48.5	7.1	1.4

Table A5. BHA Niger Baseline Indicators - Girma

Indicators, 95% Confidence Intervals and Base Population [Niger, 2020]

	Indicator Value	Confidence Interval Lower	Confidence Interval Upper	Number of Records	Weighted Population	Standard Deviation	Standard Error	DEFT
20-29 years	75.3	65.1	85.5	287	39,724	43.2	4.9	1.9
30-49 years	70.7	59.9	81.6	319	44,701	45.6	5.3	2.1
Percent of women in union who made decisions about modern family planning methods in the past 12 months	81.0	67.8	94.2	107	16,571	39.4	6.3	1.7
Decision Actors								
Alone	40.5	24.6	56.4	107	16,571	49.3	7.7	1.6
Jointly	40.5	24.3	56.7	107	16,571	49.3	7.8	1.6
Age								
15-19 years	^	^	^	7	1,317	^	^	^
20-29 years	78.9	59.8	98.0	58	8,715	41.2	9.0	1.7
30-49 years	80.0	66.4	93.7	42	6,539	40.5	6.5	1.0
CHILDREN'S HEALTH AND NUTRITION INDICATORS								
Percentage of children 6-23 months consuming a diet of minimum dietary diversity (MDD-C)	37.8	29.9	45.7	294	36,332	48.6	3.8	1.4
Male	36.9	28.7	45.1	146	19,466	47.2	4.0	1.0
Female	38.8	25.5	52.2	148	16,867	51.6	6.5	1.5
Percentage of children under age 5 with diarrhea in the last two weeks (Total)	33.0	28.9	37.1	1,055	135,504	47.1	2.0	1.4
Male	34.0	29.3	38.6	513	67,390	46.9	2.2	1.1
Female	32.1	25.9	38.3	542	68,114	47.2	3.0	1.5
Percentage of children under age 5 with diarrhea treated with ORT (Total)	47.9	35.4	60.5	355	44,773	50.0	6.1	2.3
Male	43.5	27.1	59.8	175	22,895	48.9	7.9	2.1
Female	52.6	43.1	62.1	180	21,878	51.4	4.6	1.2
GENDER - CASH								
Percent of women/men in union who earned cash in the past 12 months								
Male	65.5	56.2	74.9	712	100,771	47.6	4.5	2.5
15-19 years	^	^	^	10	1,986	^	^	^
20-29 years	70.8	57.8	83.8	134	19,709	44.6	6.3	1.6
30-49 years	74.7	67.2	82.2	346	48,417	43.8	3.6	1.5
≥50 years	50.7	38.3	63.1	222	30,659	50.6	6.0	1.8
Female	35.6	28.4	42.7	870	120,558	47.9	3.5	2.1
15-19 years	24.1	11.8	36.3	103	15,293	41.3	5.9	1.5
20-29 years	29.2	21.3	37.0	308	42,438	45.6	3.8	1.5
30-49 years	45.3	37.4	53.1	347	47,692	50.0	3.8	1.4
≥50 years	34.5	23.0	46.0	112	15,135	48.2	5.6	1.2
Percent of women in union and earning cash who report participation in decisions about the use of self-earned cash	NA	NA	NA	NA	NA	NA	NA	NA
15-19 years	NA	NA	NA	NA	NA	NA	NA	NA
20-29 years	NA	NA	NA	NA	NA	NA	NA	NA
30-49 years	NA	NA	NA	NA	NA	NA	NA	NA
≥50 years	NA	NA	NA	NA	NA	NA	NA	NA
Percent of women in union and earning cash who report participation in decisions about the use of spouse/partner's self-earned cash	NA	NA	NA	NA	NA	NA	NA	NA
15-19 years	NA	NA	NA	NA	NA	NA	NA	NA
20-29 years	NA	NA	NA	NA	NA	NA	NA	NA
30-49 years	NA	NA	NA	NA	NA	NA	NA	NA
≥50 years	NA	NA	NA	NA	NA	NA	NA	NA
Percent of men in union and earning cash who report spouse/partner participation in decisions about the use of self-earned cash	NA	NA	NA	NA	NA	NA	NA	NA
15-19 years	NA	NA	NA	NA	NA	NA	NA	NA
20-29 years	NA	NA	NA	NA	NA	NA	NA	NA
30-49 years	NA	NA	NA	NA	NA	NA	NA	NA
≥50 years	NA	NA	NA	NA	NA	NA	NA	NA
GENDER - CREDIT AND GROUP PARTICIPATION								
Percent of women/men who are members of a community group								
Male	62.1	55.2	69.1	584	85,479	48.6	3.4	1.7
15-19 years	^	^	^	1	139	^	^	^
20-29 years	51.9	41.7	62.1	103	15,839	48.8	4.9	1.0
30-49 years	63.4	55.4	71.4	302	43,715	48.5	3.9	1.4
≥50 years	66.6	57.0	76.2	178	25,786	47.4	4.6	1.3
Female	45.9	38.5	53.3	666	89,746	49.9	3.6	1.9
15-19 years	37.0	25.0	49.0	88	12,042	47.9	5.8	1.1
20-29 years	46.2	36.4	56.1	256	34,002	50.3	4.8	1.5
30-49 years	47.8	39.6	56.0	255	34,531	49.9	4.0	1.3
≥50 years	49.2	31.0	67.5	67	9,170	49.6	8.9	1.5
Percent of women/men in a union with access to credit								
Male	75.1	68.6	81.7	584	85,479	43.3	3.2	1.8
15-19 years	^	^	^	1	139	^	^	^
20-29 years	74.0	59.7	88.3	103	15,839	42.8	6.9	1.6
30-49 years	78.4	70.8	86.1	302	43,715	41.4	3.7	1.5
≥50 years	70.1	58.7	81.5	178	25,786	46.1	5.5	1.6
Female	63.5	55.2	71.8	666	89,746	48.2	4.0	2.1
15-19 years	50.5	36.8	64.2	88	12,042	49.7	6.6	1.3
20-29 years	61.9	50.0	73.8	256	34,002	48.9	5.8	1.9
30-49 years	71.4	63.3	79.5	255	34,531	45.1	3.9	1.4
≥50 years	56.7	43.5	69.9	67	9,170	49.2	6.4	1.1
Percent of men in a union who make decisions about credit	93.9	89.6	98.2	444	64,231	23.9	2.1	1.8
Decision Actors								
Alone	52.2	43.5	60.9	444	64,231	50.0	4.2	1.8
Jointly	41.7	32.9	50.6	444	64,231	49.4	4.3	1.8
Age								
15-19 years	^	^	^	1	139	^	^	^
20-29 years	86.2	76.8	95.5	78	11,723	34.8	4.5	1.2

Table A5. BHA Niger Baseline Indicators - Girma

Indicators, 95% Confidence Intervals and Base Population [Niger, 2020]

	Indicator Value	Confidence Interval Lower	Confidence Interval Upper	Number of Records	Weighted Population	Standard Deviation	Standard Error	DEFT
30-49 years	95.5	91.7	99.4	240	34,291	20.7	1.9	1.4
≥50 years	95.8	90.2	101.4	125	18,078	20.1	2.7	1.5
Percent of women in a union who make decisions about credit	72.8	67.1	78.5	428	56,990	44.6	2.8	1.3
Decision Actors								
Alone	26.9	17.7	36.2	428	56,990	44.4	4.5	2.1
Jointly	45.9	37.2	54.5	428	56,990	49.9	4.2	1.7
Age								
15-19 years	51.9	26.6	77.3	49	6,083	50.5	12.2	1.7
20-29 years	74.2	67.6	80.7	163	21,050	43.9	3.2	0.9
30-49 years	74.1	62.1	86.0	181	24,660	43.9	5.8	1.8
≥50 years	85.6	75.0	96.1	35	5,196	35.7	5.0	0.8
RESILIENCE-RELATED								
Proportion of households that believe local government will respond effectively to future shocks and stresses	63.8	54.1	73.4	766	98,461	48.1	4.7	2.7
Male and female adults	62.7	52.9	72.6	650	82,616	48.7	4.8	2.5
Adult female, no adult male	73.4	59.0	87.9	76	10,900	41.8	7.0	1.5
Adult male, no adult female	61.1	34.9	87.2	38	4,737	49.5	12.7	1.6
Child, no adults	^	^	^	2	208	^	^	^
Index of social capital at the household level (overall index)	50.9	43.8	58.1	766	98,461	38.8	3.4	2.5
Male and female adults	51.1	44.2	57.9	650	82,616	39.5	3.3	2.1
Adult female, no adult male	47.9	36.0	59.8	76	10,900	34.0	5.8	1.5
Adult male, no adult female	56.9	40.3	73.5	38	4,737	35.8	8.0	1.4
Child, no adults	^	^	^	2	208	^	^	^
Component								
Bonding sub-index	54.6	47.1	62.2	766	98,461	42.5	3.7	2.4
Bridging sub-index	47.2	40.4	54.1	766	98,461	40.8	3.3	2.3
Proportion of households participating in group-based savings, micro-finance or lending programs	12.9	6.6	19.1	766	98,461	33.5	3.0	2.5
Male and female adults	13.5	7.3	19.8	650	82,616	34.4	3.0	2.2
Adult female, no adult male	13.5	2.0	25.0	76	10,900	32.3	5.6	1.5
Adult male, no adult female	0.0			38	4,737	0.0		0.0
Child, no adults	^	^	^	2	208	^	^	^
Financing type								
Savings	10.9	5.1	16.7	766	98,461	31.2	2.8	2.5
Credit	5.1	2.1	8.2	766	98,461	22.1	1.5	1.9

NA : Not available

^ Results not statistically reliable, n<30.

NOTES:

[1] Number of records for improved storage practices may differ from that of other improved agricultural practices because questions on the use of improved practices were generally asked as part of the main agriculture module while questions on the use of improved storage practices were asked seperately as part of the module on crop yield. The numbers of responding farmers differ across the two modules.

Table 12: A5 BHA Niger Baseline Indicators - Hamzari

Table A5. BHA Niger Baseline Indicators - Hamzari

Indicators, 95% Confidence Intervals and Base Population [Niger, 2020]

	Indicator Value	Confidence Interval Lower	Confidence Interval Upper	Number of Records	Weighted Population	Standard Deviation	Standard Error	DEFT
FOOD SECURITY INDICATORS								
Percentage of households with poor food consumption score (FCS)	8.0	2.3	13.6	752	28,037	27.1	2.7	2.8
Male and female adults	7.3	1.5	13.0	703	26,125	26.0	2.8	2.9
Adult female, no adult male	20.6	7.7	33.6	30	1,324	37.2	6.3	0.9
Adult male, no adult female	^	^	^	17	568	^	^	^
Child, no adults	^	^	^	2	21	^	^	^
Percentage of households with borderline FCS	15.5	9.8	21.3	752	28,037	36.2	2.8	2.1
Male and female adults	15.3	9.8	20.9	703	26,125	36.1	2.7	2.0
Adult female, no adult male	18.6	-3.0	40.2	30	1,324	35.8	10.5	1.6
Adult male, no adult female	^	^	^	17	568	^	^	^
Child, no adults	^	^	^	2	21	^	^	^
Percentage of households with acceptable FCS	76.5	67.2	85.8	752	28,037	42.4	4.5	2.9
Male and female adults	77.4	68.3	86.5	703	26,125	41.9	4.4	2.8
Adult female, no adult male	60.8	39.9	81.8	30	1,324	44.9	10.1	1.2
Adult male, no adult female	^	^	^	17	568	^	^	^
Child, no adults	^	^	^	2	21	^	^	^
Food consumption score (FCS)	51.5	46.4	56.6	752	28,037	21.2	2.5	3.2
Male and female adults	52.1	47.1	57.1	703	26,125	21.0	2.4	3.1
Adult female, no adult male	42.9	34.0	51.7	30	1,324	22.4	4.3	1.1
Adult male, no adult female	^	^	^	17	568	^	^	^
Child, no adults	^	^	^	2	21	^	^	^
WASH INDICATORS								
Percentage of households using a basic water service	NA	NA	NA	NA	NA	NA	NA	NA
Distance/Time from service	NA	NA	NA	NA	NA	NA	NA	NA
On premises	NA	NA	NA	NA	NA	NA	NA	NA
≤ 30-minute roundtrip	NA	NA	NA	NA	NA	NA	NA	NA
Gendered household type	NA	NA	NA	NA	NA	NA	NA	NA
Male and female adults	NA	NA	NA	NA	NA	NA	NA	NA
Adult female, no adult male	NA	NA	NA	NA	NA	NA	NA	NA
Adult male, no adult female	NA	NA	NA	NA	NA	NA	NA	NA

Table A5. BHA Niger Baseline Indicators - Hamzari

Indicators, 95% Confidence Intervals and Base Population [Niger, 2020]

	Indicator Value	Confidence Interval Lower	Upper	Number of Records	Weighted Population	Standard Deviation	Standard Error	DEFT
Child, no adults	NA	NA	NA	NA	NA	NA	NA	NA
Percentage of households with access to a basic sanitation facility	13.0	3.3	22.7	751	28,050	33.7	4.7	3.8
Male and female adults	13.1	3.3	22.9	703	26,153	33.8	4.7	3.7
Adult female, no adult male	^	^	^	29	1,308	^	^	^
Adult male, no adult female	^	^	^	17	568	^	^	^
Child, no adults	^	^	^	2	21	^	^	^
Percentage of households with soap/ash and water at a handwashing station on premises	40.6	19.7	61.6	90	2,943	49.4	9.9	1.9
Male and female adults	39.8	16.5	63.0	82	2,607	51.2	11.2	2.0
Adult female, no adult male	^	^	^	5	270	^	^	^
Adult male, no adult female	^	^	^	2	49	^	^	^
Child, no adults	^	^	^	1	16	^	^	^
AGRICULTURAL INDICATORS								
Percentage of farmers who used financial services in the past 12 months	23.0	14.9	31.1	1,329	52,555	42.1	3.9	3.4
Male	28.7	19.1	38.4	668	26,525	45.2	4.7	2.7
Female	17.2	10.0	24.4	661	26,031	37.8	3.5	2.4
Percentage of farmers who used improved storage practices in the past 12 months	58.3	40.7	75.9	1,032	40,401	49.3	8.5	5.5
Male	66.8	50.8	82.9	651	25,755	47.0	7.8	4.2
Female	43.2	22.6	63.8	381	14,646	50.1	10.0	3.9
Proportion of producers who have applied targeted improved management practices or technologies								
Sorghum								
Crop genetics practices/technologies								
Use of improved seeds	12.6	1.6	23.7	822	30,783	33.2	5.4	4.6
Cultural practices/technologies								
Control of sida cordifolia growth	18.9	4.8	33.0	822	30,783	39.2	6.8	5.0
Crop association	74.1	63.0	85.3	822	30,783	43.8	5.4	3.5
Crop rotation	3.6	1.7	5.4	822	30,783	18.6	0.9	1.4
Sowing after useful rain	39.4	24.7	54.1	822	30,783	48.9	7.1	4.2
Improved natural resources or ecosystem management practices/technologies								
Farmer managed natural regeneration (fmnr)	19.3	11.7	26.9	822	30,783	39.5	3.7	2.7
Delimitation of animal corridors and pasture areas	33.3	25.8	40.9	822	30,783	47.2	3.7	2.2
Protection of ponds against silting up	9.5	4.6	14.3	822	30,783	29.3	2.3	2.3
Functional community-based conflict management mechanisms	2.7	0.3	5.0	822	30,783	16.1	1.1	2.0
Improved pest and disease management practices/technologies								
Delay of seedlings at third or fourth rains to control pests	8.9	4.5	13.3	822	30,783	28.5	2.1	2.1
Seed treatment with fungicides	13.5	7.1	20.0	822	30,783	34.2	3.1	2.6
Improved soil-related fertility and conservation practices/technologies								
Zai pits	12.2	3.1	21.3	822	30,783	32.7	4.4	3.9
Organic manure	66.0	53.8	78.3	822	30,783	47.4	5.9	3.6
Phosphatic manure	9.9	5.5	14.2	822	30,783	29.8	2.1	2.0
Compost	29.1	20.2	37.9	822	30,783	45.4	4.3	2.7
Microdoses of fertilizer	5.4	1.9	8.9	822	30,783	22.7	1.7	2.1
Improved agriculture water management non-irrigation-based practices/technologies								
Agricultural half-moons	2.0	0.4	3.7	822	30,783	14.1	0.8	1.6
Improved climate adaptation/climate risk management practices/technologies								
Use of climate information (rain forecast, disaster risks, etc.)	2.0	0.2	3.9	822	30,783	14.2	0.9	1.9
Improved post-harvest handling and storage practices/technologies								
Locally made storage structures such as sheet metal silos	37.1	18.6	55.6	683	25,612	48.3	9.0	4.8
Sealed/airtight bags	10.0	4.7	15.4	683	25,612	30.0	2.6	2.3
Community storage facilities, including warehouse receipting	3.6	0.6	6.5	683	25,612	18.5	1.4	2.0
Use of solar or fuel-powered dryers to reduce post-harvest moisture	0.3	-0.1	0.7	683	25,612	5.5	0.2	1.0
Seed or grain treatment techniques including botanical pest control agents or phytosanitary irradiation	0.0			683	25,612	0.0		0.0
Grain treatment with agro-chemicals	0.7	-0.3	1.8	683	25,612	8.6	0.5	1.5
Triple bags for cowpea grain preservation	0.4	-0.2	1.0	683	25,612	6.5	0.3	1.1
Other post-harvest practices that reduce pre-storage losses	3.6	-0.5	7.7	683	25,612	18.6	2.0	2.8
Other improved practices/technologies								
Performing at least three weedings	34.2	15.0	53.4	822	30,783	47.5	9.3	5.6
Millet								
Crop genetics practices/technologies								
Use of improved seeds	11.7	1.9	21.4	1,018	39,678	32.1	4.7	4.7
Cultural practices/technologies								
Control of sida cordifolia growth	18.9	5.6	32.2	1,018	39,678	39.2	6.4	5.2
Crop association	68.7	57.4	80.0	1,018	39,678	46.4	5.5	3.8
Crop rotation	7.1	2.9	11.2	1,018	39,678	25.6	2.0	2.5
Sowing after useful rain	41.6	24.1	59.2	1,018	39,678	49.3	8.5	5.5
Improved natural resources or ecosystem management practices/technologies								
Farmer managed natural regeneration (fmnr)	18.7	10.9	26.4	1,018	39,678	39.0	3.8	3.1
Delimitation of animal corridors and pasture areas	30.4	21.9	38.9	1,018	39,678	46.0	4.1	2.8
Protection of ponds against silting up	8.4	4.4	12.4	1,018	39,678	27.7	1.9	2.2
Functional community-based conflict management mechanisms	2.2	0.3	4.1	1,018	39,678	14.7	0.9	2.0
Improved pest and disease management practices/technologies								
Delay of seedlings at third or fourth rains to control pests	7.5	3.3	11.6	1,018	39,678	26.3	2.0	2.4
Seed treatment with fungicides	11.3	6.4	16.3	1,018	39,678	31.7	2.4	2.4
Improved soil-related fertility and conservation practices/technologies								

Table A5. BHA Niger Baseline Indicators - Hamzari

Indicators, 95% Confidence Intervals and Base Population [Niger, 2020]

	Indicator Value	Confidence Interval Lower	Confidence Interval Upper	Number of Records	Weighted Population	Standard Deviation	Standard Error	DEFT
Zai pits	12.8	3.7	21.8	1,018	39,678	33.4	4.4	4.2
Organic manure	61.5	51.4	71.7	1,018	39,678	48.7	4.9	3.2
Phosphatic manure	14.5	6.7	22.4	1,018	39,678	35.2	3.8	3.4
Compost	34.3	23.5	45.2	1,018	39,678	47.5	5.3	3.5
Microdoses of fertilizer	6.9	4.1	9.7	1,018	39,678	25.4	1.4	1.7
Improved agriculture water management non-irrigation-based practices/technologies								
Agricultural half-moons	1.9	0.1	3.8	1,018	39,678	13.8	0.9	2.1
Improved climate adaptation/climate risk management practices/technologies								
Use of climate information (rain forecast, disaster risks, etc.)	1.3	0.1	2.6	1,018	39,678	11.5	0.6	1.7
Improved post-harvest handling and storage practices/technologies								
Locally made storage structures such as sheet metal silos	40.5	19.9	61.2	973	37,981	49.1	10.0	6.3
Sealed/airtight bags	7.7	2.7	12.6	973	37,981	26.6	2.4	2.8
Community storage facilities, including warehouse receipting	5.5	2.8	8.2	973	37,981	22.8	1.3	1.8
Use of solar or fuel-powered dryers to reduce post-harvest moisture	0.5	-0.2	1.3	973	37,981	7.4	0.4	1.5
Seed or grain treatment techniques including botanical pest control agents or phytosanitary irradiation	0.3	-0.1	0.8	973	37,981	5.5	0.2	1.2
Grain treatment with agro-chemicals	0.7	-0.1	1.4	973	37,981	8.1	0.3	1.3
Triple bags for cowpea grain preservation	1.2	0.3	2.2	973	37,981	11.1	0.4	1.3
Other post-harvest practices that reduce pre-storage losses	3.2	-0.5	7.0	973	37,981	17.7	1.8	3.2
Other improved practices/technologies								
Performing at least three weedings	36.2	15.7	56.7	1,018	39,678	48.1	9.9	6.6
Cowpeas								
Crop genetics practices/technologies								
Use of improved seeds	12.4	1.7	23.1	909	34,841	33.0	5.2	4.7
Cultural practices/technologies								
Control of sida cordifolia growth	20.1	6.5	33.6	909	34,841	40.1	6.5	4.9
Crop association	71.1	59.6	82.7	909	34,841	45.3	5.6	3.7
Crop rotation	5.7	2.2	9.3	909	34,841	23.3	1.7	2.2
Sowing after useful rain	41.1	22.6	59.6	909	34,841	49.2	9.0	5.5
Improved natural resources or ecosystem management practices/technologies								
Farmer managed natural regeneration (fmnr)	18.8	10.3	27.2	909	34,841	39.1	4.1	3.2
Delimitation of animal corridors and pasture areas	30.8	22.5	39.1	909	34,841	46.2	4.0	2.6
Protection of ponds against silting up	8.9	4.4	13.5	909	34,841	28.5	2.2	2.3
Functional community-based conflict management mechanisms	2.6	0.4	4.8	909	34,841	16.0	1.1	2.0
Improved pest and disease management practices/technologies								
Delay of seedlings at third or fourth rains to control pests	11.9	5.8	18.0	909	34,841	32.4	3.0	2.8
Seed treatment with fungicides	13.5	8.1	19.0	909	34,841	34.2	2.7	2.3
Improved soil-related fertility and conservation practices/technologies								
Zai pits	15.2	5.4	25.0	909	34,841	35.9	4.7	4.0
Organic manure	61.5	50.2	72.8	909	34,841	48.7	5.5	3.4
Phosphatic manure	15.7	7.8	23.6	909	34,841	36.4	3.8	3.2
Compost	34.5	23.8	45.2	909	34,841	47.6	5.2	3.3
Microdoses of fertilizer	5.9	3.5	8.3	909	34,841	23.6	1.2	1.5
Improved agriculture water management non-irrigation-based practices/technologies								
Agricultural half-moons	1.7	0.1	3.4	909	34,841	13.0	0.8	1.9
Improved climate adaptation/climate risk management practices/technologies								
Use of climate information (rain forecast, disaster risks, etc.)	1.5	0.1	2.9	909	34,841	12.0	0.7	1.7
Improved post-harvest handling and storage practices/technologies								
Locally made storage structures such as sheet metal silos	7.1	2.9	11.4	779	29,558	25.8	2.1	2.2
Sealed/airtight bags	28.9	15.1	42.6	779	29,558	45.3	6.7	4.1
Community storage facilities, including warehouse receipting	5.2	1.5	8.8	779	29,558	22.1	1.8	2.2
Use of solar or fuel-powered dryers to reduce post-harvest moisture	0.5	-0.1	1.1	779	29,558	7.2	0.3	1.1
Seed or grain treatment techniques including botanical pest control agents or phytosanitary irradiation	1.0	0.0	1.9	779	29,558	9.7	0.5	1.3
Grain treatment with agro-chemicals	5.1	0.9	9.3	779	29,558	22.1	2.0	2.6
Triple bags for cowpea grain preservation	11.8	1.0	22.6	779	29,558	32.3	5.3	4.5
Other post-harvest practices that reduce pre-storage losses	2.5	-0.5	5.5	779	29,558	15.5	1.5	2.6
Other improved practices/technologies								
Performing at least three weedings	37.4	16.1	58.8	909	34,841	48.4	10.3	6.4
Peanuts (groundnuts)								
Crop genetics practices/technologies								
Use of improved seeds	14.6	2.9	26.3	571	22,717	35.3	5.7	3.8
Cultural practices/technologies								
Control of sida cordifolia growth	21.5	8.0	34.9	571	22,717	41.1	6.5	3.8
Crop association	69.9	56.4	83.4	571	22,717	45.9	6.5	3.4
Crop rotation	7.2	4.2	10.3	571	22,717	25.9	1.5	1.4
Sowing after useful rain	43.2	23.8	62.7	571	22,717	49.6	9.4	4.5
Improved natural resources or ecosystem management practices/technologies								
Farmer managed natural regeneration (fmnr)	18.5	9.7	27.3	571	22,717	38.9	4.3	2.6
Delimitation of animal corridors and pasture areas	32.6	22.6	42.6	571	22,717	46.9	4.8	2.5
Protection of ponds against silting up	9.3	4.1	14.6	571	22,717	29.1	2.5	2.1
Functional community-based conflict management mechanisms	3.4	0.3	6.6	571	22,717	18.2	1.5	2.0
Improved pest and disease management practices/technologies								
Delay of seedlings at third or fourth rains to control pests	9.6	3.5	15.8	571	22,717	29.5	3.0	2.4
Seed treatment with fungicides	15.6	9.3	21.9	571	22,717	36.3	3.1	2.0

Table A5. BHA Niger Baseline Indicators - Hamzari

Indicators, 95% Confidence Intervals and Base Population [Niger, 2020]

	Indicator Value	Confidence Interval Lower	Confidence Interval Upper	Number of Records	Weighted Population	Standard Deviation	Standard Error	DEFT
Improved soil-related fertility and conservation practices/technologies								
Zai pits	13.3	4.9	21.7	571	22,717	34.0	4.1	2.9
Organic manure	68.5	56.8	80.3	571	22,717	46.5	5.7	2.9
Phosphatic manure	17.2	6.7	27.7	571	22,717	37.8	5.1	3.2
Compost	35.4	24.7	46.1	571	22,717	47.9	5.2	2.6
Microdoses of fertilizer	6.1	2.9	9.2	571	22,717	23.9	1.5	1.5
Improved agriculture water management non-irrigation-based practices/technologies								
Agricultural half-moons	1.8	0.1	3.4	571	22,717	13.1	0.8	1.4
Improved climate adaptation/climate risk management practices/technologies								
Use of climate information (rain forecast, disaster risks, etc.)	1.9	-0.1	3.9	571	22,717	13.7	1.0	1.7
Improved post-harvest handling and storage practices/technologies								
Locally made storage structures such as sheet metal silos	8.0	3.4	12.6	479	19,524	27.2	2.2	1.8
Sealed/airtight bags	35.4	16.4	54.3	479	19,524	47.9	9.2	4.2
Community storage facilities, including warehouse receipting	4.0	1.1	6.9	479	19,524	19.6	1.4	1.6
Use of solar or fuel-powered dryers to reduce post-harvest moisture	0.3	-0.3	0.9	479	19,524	5.5	0.3	1.2
Seed or grain treatment techniques including botanical pest control agents or phytosanitary irradiation	0.8	-0.2	1.7	479	19,524	8.7	0.5	1.1
Grain treatment with agro-chemicals	0.7	-0.6	2.0	479	19,524	8.4	0.6	1.6
Triple bags for cowpea grain preservation	7.8	0.4	15.1	479	19,524	26.8	3.6	2.9
Other post-harvest practices that reduce pre-storage losses	2.7	-0.4	5.7	479	19,524	16.1	1.5	2.0
Other improved practices/technologies								
Performing at least three weedings	37.7	17.0	58.5	571	22,717	48.5	10.1	5.0
Goats								
Improved fodder production	4.6	1.0	8.2	530	20,895	21.0	1.7	1.9
Use of licking and/or multi-nutritional block	3.9	-0.5	8.2	530	20,895	19.3	2.1	2.5
Animal selection	7.0	1.5	12.4	530	20,895	25.5	2.6	2.4
Vaccinations	48.2	40.2	56.3	530	20,895	50.0	3.9	1.8
Antiparasitic treatments	33.8	27.5	40.2	530	20,895	47.4	3.1	1.5
Veterinary monitoring of food quality and quantity over time	2.2	0.4	4.1	530	20,895	14.8	0.9	1.4
Weight monitoring	3.3	1.1	5.4	530	20,895	17.8	1.1	1.4
Optimum weight-market price criteria for the sale decision	1.5	-0.5	3.5	530	20,895	12.1	1.0	1.9
Use of para-veterinary services for goats and sheep	2.1	-1.0	5.3	530	20,895	14.4	1.5	2.4
Sheep								
Improved fodder production	5.4	0.8	10.0	215	9,404	22.7	2.2	1.4
Use of licking and/or multi-nutritional block	4.8	-0.8	10.3	215	9,404	21.4	2.7	1.8
Animal selection	5.9	2.4	9.4	215	9,404	23.7	1.7	1.0
Vaccinations	51.9	41.8	62.1	215	9,404	50.1	4.9	1.4
Antiparasitic treatments	33.8	28.3	39.4	215	9,404	47.4	2.7	0.8
Veterinary monitoring of food quality and quantity over time	4.1	0.6	7.5	215	9,404	19.8	1.7	1.2
Weight monitoring	3.6	-0.2	7.4	215	9,404	18.6	1.8	1.5
Optimum weight-market price criteria for the sale decision	0.3	-0.2	0.7	215	9,404	5.1	0.2	0.7
Use of para-veterinary services for goats and sheep	2.9	-0.4	6.2	215	9,404	16.8	1.6	1.4
Poultry								
Use of improved poultry variety/breed	8.8	3.6	14.0	178	6,861	28.4	2.5	1.2
Use of improved feed	8.6	1.5	15.8	178	6,861	28.2	3.5	1.6
Use of improved shelters	11.1	4.0	18.1	178	6,861	31.5	3.4	1.4
Vaccinations	30.7	20.0	41.5	178	6,861	46.3	5.2	1.5
Use of veterinary products and services (antibiotics, vitamins, etc.)	15.5	6.9	24.1	178	6,861	36.3	4.2	1.5
WOMEN'S HEALTH AND NUTRITION INDICATORS								
Percentage of women of reproductive age consuming a diet of minimum diversity (MDD-W)	49.8	39.8	59.7	1,230	49,240	50.0	4.8	3.4
15-19 years	47.5	36.4	58.5	303	12,332	49.5	5.4	1.9
20-49 years	50.5	40.2	60.9	927	36,908	50.2	5.0	3.0
Percent of births receiving at least 4 antenatal care (ANC) visits during pregnancy	56.9	47.7	66.2	712	28,522	49.6	4.5	2.4
Contraceptive prevalence rate (CPR)	21.8	16.0	27.6	816	31,144	41.3	2.8	1.9
Modern	18.4	12.3	24.4	816	31,144	38.8	2.9	2.2
Traditional	3.6	1.8	5.4	816	31,144	18.7	0.9	1.3
Percent of women in union who have knowledge of modern family planning methods that can be used to delay or avoid pregnancy	74.5	65.2	83.8	990	38,607	43.6	4.5	3.3
15-19 years	62.2	43.5	81.0	124	4,357	48.7	9.1	2.1
20-29 years	76.9	68.6	85.2	374	14,673	42.2	4.0	1.8
30-49 years	75.5	65.8	85.2	492	19,577	43.0	4.7	2.4
Percent of women in union who made decisions about modern family planning methods in the past 12 months	77.3	68.4	86.2	187	7,929	42.0	4.3	1.4
Decision Actors								
Alone	39.9	28.0	51.8	187	7,929	49.1	5.7	1.6
Jointly	37.4	28.8	46.0	187	7,929	48.5	4.2	1.2
Age								
15-19 years	^	^	^	9	262	^	^	^
20-29 years	77.1	67.4	86.8	79	3,463	42.3	4.7	1.0
30-49 years	76.1	63.3	88.9	99	4,204	42.8	6.1	1.4
CHILDREN'S HEALTH AND NUTRITION INDICATORS								
Percentage of children 6-23 months consuming a diet of minimum dietary diversity (MDD-C)	54.6	46.4	62.7	324	12,231	49.9	4.0	1.4
Male	53.8	43.3	64.3	158	5,774	50.8	5.1	1.3
Female	55.3	46.3	64.3	166	6,456	49.8	4.3	1.1
Percentage of children under age 5 with diarrhea in the last two weeks (Total)	24.5	20.4	28.6	1,231	47,521	43.0	2.0	1.6

Table A5. BHA Niger Baseline Indicators - Hamzari

Indicators, 95% Confidence Intervals and Base Population [Niger, 2020]

	Indicator Value	Confidence Interval Lower	Confidence Interval Upper	Number of Records	Weighted Population	Standard Deviation	Standard Error	DEFT
Male	25.6	21.7	29.5	615	24,015	43.4	1.9	1.1
Female	23.4	18.4	28.4	616	23,506	42.6	2.4	1.4
Percentage of children under age 5 with diarrhea treated with ORT (Total)	52.0	41.8	62.1	312	11,648	50.0	4.9	1.7
Male	50.7	36.6	64.9	164	6,149	50.4	6.9	1.7
Female	53.3	43.2	63.4	148	5,498	50.9	4.9	1.2
GENDER - CASH								
Percent of women/men in union who earned cash in the past 12 months								
Male	66.6	60.6	72.5	783	32,303	47.2	2.9	1.7
15-19 years	^	^	^	7	338	^	^	^
20-29 years	71.3	60.0	82.7	111	3,978	48.6	5.5	1.2
30-49 years	68.9	61.9	75.8	384	16,206	45.8	3.4	1.4
≥50 years	61.8	53.1	70.5	281	11,780	48.2	4.2	1.5
Female	37.5	32.1	42.9	1,189	47,032	48.4	2.6	1.9
15-19 years	16.4	7.8	25.0	135	4,819	39.0	4.2	1.2
20-29 years	30.8	25.0	36.6	391	15,375	46.3	2.8	1.2
30-49 years	47.3	40.4	54.2	515	20,678	49.6	3.3	1.5
≥50 years	37.8	25.6	50.0	148	6,160	47.3	5.9	1.5
Percent of women in union and earning cash who report participation in decisions about the use of self-earned cash	NA	NA	NA	NA	NA	NA	NA	NA
15-19 years	NA	NA	NA	NA	NA	NA	NA	NA
20-29 years	NA	NA	NA	NA	NA	NA	NA	NA
30-49 years	NA	NA	NA	NA	NA	NA	NA	NA
≥50 years	NA	NA	NA	NA	NA	NA	NA	NA
Percent of women in union and earning cash who report participation in decisions about the use of spouse/partner's self-earned cash	NA	NA	NA	NA	NA	NA	NA	NA
15-19 years	NA	NA	NA	NA	NA	NA	NA	NA
20-29 years	NA	NA	NA	NA	NA	NA	NA	NA
30-49 years	NA	NA	NA	NA	NA	NA	NA	NA
≥50 years	NA	NA	NA	NA	NA	NA	NA	NA
Percent of men in union and earning cash who report spouse/partner participation in decisions about the use of self-earned cash	NA	NA	NA	NA	NA	NA	NA	NA
15-19 years	NA	NA	NA	NA	NA	NA	NA	NA
20-29 years	NA	NA	NA	NA	NA	NA	NA	NA
30-49 years	NA	NA	NA	NA	NA	NA	NA	NA
≥50 years	NA	NA	NA	NA	NA	NA	NA	NA
GENDER - CREDIT AND GROUP PARTICIPATION								
Percent of women/men who are members of a community group								
Male	58.2	43.7	72.8	623	26,703	49.4	7.1	3.6
15-19 years	^	^	^	4	231	^	^	^
20-29 years	55.8	37.8	73.8	77	3,069	51.5	8.7	1.5
30-49 years	58.5	42.7	74.2	322	13,766	49.4	7.6	2.8
≥50 years	58.6	41.4	75.8	220	9,637	48.8	8.3	2.5
Female	48.0	35.5	60.6	711	28,923	50.0	6.1	3.2
15-19 years	42.7	28.6	56.8	112	3,963	53.1	6.8	1.4
20-29 years	47.6	33.6	61.6	281	11,599	49.6	6.8	2.3
30-49 years	52.5	39.1	66.0	264	10,913	49.6	6.5	2.1
≥50 years	38.4	20.6	56.1	54	2,448	46.1	8.6	1.4
Percent of women/men in a union with access to credit								
Male	66.5	55.1	77.9	623	26,703	47.2	5.5	2.9
15-19 years	^	^	^	4	231	^	^	^
20-29 years	48.6	27.9	69.4	77	3,069	51.9	10.1	1.7
30-49 years	72.6	61.4	83.9	322	13,766	44.7	5.4	2.2
≥50 years	63.5	51.1	75.8	220	9,637	47.7	6.0	1.9
Female	55.9	43.6	68.2	711	28,923	49.7	6.0	3.2
15-19 years	37.1	23.8	50.4	112	3,963	51.8	6.5	1.3
20-29 years	56.4	41.0	71.7	281	11,599	49.3	7.4	2.5
30-49 years	61.8	49.1	74.5	264	10,913	48.2	6.2	2.1
≥50 years	58.1	39.2	77.0	54	2,448	46.8	9.2	1.4
Percent of men in a union who make decisions about credit	93.6	89.8	97.3	426	17,751	24.6	1.8	1.5
Decision Actors								
Alone	82.6	78.1	87.1	426	17,751	38.0	2.2	1.2
Jointly	11.0	5.4	16.6	426	17,751	31.3	2.7	1.8
Age								
15-19 years	^	^	^	3	143	^	^	^
20-29 years	97.1	91.3	103.0	46	1,493	16.9	2.8	1.1
30-49 years	95.6	91.4	99.8	237	9,999	20.6	2.0	1.5
≥50 years	90.4	83.7	97.0	140	6,116	29.6	3.2	1.3
Percent of women in a union who make decisions about credit	77.0	71.5	82.4	409	16,170	42.2	2.6	1.3
Decision Actors								
Alone	58.0	46.7	69.3	409	16,170	49.4	5.5	2.2
Jointly	19.0	10.6	27.3	409	16,170	39.2	4.0	2.1
Age								
15-19 years	64.7	46.2	83.2	52	1,469	48.3	8.8	1.3
20-29 years	72.9	66.0	79.8	165	6,539	44.6	3.3	1.0
30-49 years	82.0	76.4	87.7	162	6,740	38.5	2.7	0.9
≥50 years	84.3	68.2	100.4	30	1,422	37.0	7.5	1.1
RESILIENCE-RELATED								
Proportion of households that believe local government will respond effectively to future shocks and stresses	60.1	54.3	65.9	753	28,085	49.0	2.8	1.6
Male and female adults	61.3	55.2	67.5	704	26,172	48.8	3.0	1.6
Adult female, no adult male	48.1	34.5	61.7	30	1,324	45.9	6.6	0.8
Adult male, no adult female	^	^	^	17	568	^	^	^

Table A5. BHA Niger Baseline Indicators - Hamzari

Indicators, 95% Confidence Intervals and Base Population [Niger, 2020]

	Indicator Value	Confidence Interval		Number of Records	Weighted Population	Standard Deviation	Standard Error	DEFT
		Lower	Upper					
Child, no adults	^	^	^	2	21	^	^	^
Index of social capital at the household level (overall index)	54.8	49.7	59.9	753	28,085	41.6	2.5	1.6
Male and female adults	54.2	49.3	59.1	704	26,172	41.8	2.4	1.5
Adult female, no adult male	56.5	37.7	75.3	30	1,324	36.0	9.1	1.4
Adult male, no adult female	^	^	^	17	568	^	^	^
Child, no adults	^	^	^	2	21	^	^	^
Component								
Bonding sub-index	56.8	52.3	61.4	753	28,085	42.7	2.2	1.4
Bridging sub-index	52.7	46.9	58.6	753	28,085	44.3	2.8	1.7
Proportion of households participating in group-based savings, micro-finance or lending programs	3.4	1.0	5.8	753	28,085	18.2	1.2	1.7
Male and female adults	3.7	1.2	6.2	704	26,172	18.9	1.2	1.7
Adult female, no adult male	0.0			30	1,324	0.0		0.0
Adult male, no adult female	^	^	^	17	568	^	^	^
Child, no adults	^	^	^	2	21	^	^	^
Financing type								
Savings	2.4	0.5	4.3	753	28,085	15.2	0.9	1.7
Credit	1.5	0.3	2.7	753	28,085	12.1	0.6	1.3

NA : Not available

^ Results not statistically reliable, n<30.

NOTES:

[1] Number of records for improved storage practices may differ from that of other improved agricultural practices because questions on the use of improved practices were generally asked as part of the main agriculture module while questions on the use of improved storage practices were asked seperately as part of the module on crop yield. The numbers of responding farmers differ across the two modules.

Table 13: A5 BHA Niger Baseline Indicators - Wadata

Table A5. BHA Niger Baseline Indicators - Wadata

Indicators, 95% Confidence Intervals and Base Population [Niger, 2020]

	Indicator Value	Confidence Interval Lower	Confidence Interval Upper	Number of Records	Weighted Population	Standard Deviation	Standard Error	DEFT
FOOD SECURITY INDICATORS								
Percentage of households with poor food consumption score (FCS)	3.8	1.5	6.0	721	40,376	19.0	1.1	1.6
Male and female adults	3.2	1.2	5.2	566	31,812	17.6	1.0	1.3
Adult female, no adult male	7.8	1.6	13.9	98	5,324	27.3	3.0	1.1
Adult male, no adult female	3.1	-2.9	9.0	54	3,029	17.2	2.9	1.2
Child, no adults	^	^	^	3	211	^	^	^
Percentage of households with borderline FCS	10.4	7.4	13.3	721	40,376	30.5	1.4	1.3
Male and female adults	9.1	6.3	11.9	566	31,812	28.7	1.4	1.1
Adult female, no adult male	15.5	8.6	22.4	98	5,324	36.9	3.4	0.9
Adult male, no adult female	14.5	3.3	25.7	54	3,029	35.3	5.4	1.1
Child, no adults	^	^	^	3	211	^	^	^
Percentage of households with acceptable FCS	85.9	81.4	90.4	721	40,376	34.9	2.2	1.7
Male and female adults	87.7	83.7	91.8	566	31,812	32.8	2.0	1.4
Adult female, no adult male	76.7	67.0	86.5	98	5,324	43.1	4.7	1.1
Adult male, no adult female	82.4	68.4	96.5	54	3,029	38.1	6.8	1.3
Child, no adults	^	^	^	3	211	^	^	^
Food consumption score (0-112)	56.2	52.7	59.8	721	40,376	20.8	1.7	2.2
Male and female adults	57.7	54.2	61.1	566	31,812	20.6	1.7	1.9
Adult female, no adult male	52.2	45.9	58.5	98	5,324	22.6	3.1	1.3
Adult male, no adult female	48.7	42.6	54.7	54	3,029	15.5	2.9	1.4
Child, no adults	^	^	^	3	211	^	^	^
WASH INDICATORS								
Percentage of households using a basic water service	NA	NA	NA	NA	NA	NA	NA	NA
Distance/Time from service	NA	NA	NA	NA	NA	NA	NA	NA
On premises	NA	NA	NA	NA	NA	NA	NA	NA
≤ 30-minute roundtrip	NA	NA	NA	NA	NA	NA	NA	NA
Gendered household type	NA	NA	NA	NA	NA	NA	NA	NA
Male and female adults	NA	NA	NA	NA	NA	NA	NA	NA
Adult female, no adult male	NA	NA	NA	NA	NA	NA	NA	NA
Adult male, no adult female	NA	NA	NA	NA	NA	NA	NA	NA
Child, no adults	NA	NA	NA	NA	NA	NA	NA	NA
Percentage of households with access to a basic sanitation facility	4.4	1.7	7.0	734	41,416	20.4	1.3	1.7
Male and female adults	4.6	1.7	7.6	575	32,523	21.0	1.4	1.6
Adult female, no adult male	5.2	-0.2	10.7	98	5,324	22.7	2.6	1.1
Adult male, no adult female	0.5	-0.5	1.4	58	3,358	6.7	0.5	0.5
Child, no adults	^	^	^	3	211	^	^	^
Percentage of households with soap/ash and water at a handwashing station on premises	18.2	13.4	23.1	533	30,490	38.6	2.3	1.4
Male and female adults	19.5	14.1	24.9	425	24,375	39.5	2.6	1.4
Adult female, no adult male	11.2	2.4	20.1	66	3,623	32.1	4.3	1.1
Adult male, no adult female	15.0	1.1	29.0	40	2,317	35.3	6.8	1.2
Child, no adults	^	^	^	2	175	^	^	^
AGRICULTURAL INDICATORS								
Percentage of farmers who used financial services in the past 12 months	25.8	20.1	31.5	828	50,716	43.8	2.8	1.8
Male	30.0	24.2	35.7	473	29,296	45.6	2.8	1.3
Female	20.1	12.7	27.5	355	21,421	40.4	3.6	1.7
Percentage of farmers who used improved storage practices in the past 12 months	43.2	30.6	55.8	758	46,173	49.6	6.1	3.4
Male	45.0	30.8	59.1	455	28,255	49.5	6.9	3.0
Female	40.5	23.4	57.5	303	17,919	49.8	8.3	2.9
Proportion of producers who have applied targeted improved management practices or technologies								
Sorghum								
Crop genetics practices/technologies								
Use of improved seeds	0.6	-0.1	1.2	596	36,774	7.5	0.3	1.0
Cultural practices/technologies								
Control of sida cordifolia growth	0.5	-0.1	1.2	596	36,774	7.3	0.3	1.0
Crop association	28.9	15.6	42.3	596	36,774	45.4	6.5	3.5
Crop rotation	0.5	-0.1	1.1	596	36,774	7.2	0.3	1.0
Sowing after useful rain	19.0	9.4	28.6	596	36,774	39.2	4.7	2.9
Improved natural resources or ecosystem management practices/technologies								
Farmer managed natural regeneration (fmnr)	36.8	23.3	50.3	596	36,774	48.3	6.6	3.3
Delimitation of animal corridors and pasture areas	25.5	17.8	33.2	596	36,774	43.6	3.7	2.1
Protection of ponds against silting up	7.9	3.6	12.3	596	36,774	27.0	2.1	1.9
Functional community-based conflict management mechanisms	1.7	-0.2	3.5	596	36,774	12.9	0.9	1.7
Improved pest and disease management practices/technologies								
Delay of seedlings at third or fourth rains to control pests	0.2	-0.2	0.5	596	36,774	4.1	0.2	1.0
Seed treatment with fungicides	8.2	3.9	12.5	596	36,774	27.4	2.1	1.9
Improved soil-related fertility and conservation practices/technologies								
Zai pits	1.5	-0.7	3.6	596	36,774	12.1	1.0	2.1
Organic manure	59.9	47.2	72.5	596	36,774	49.1	6.1	3.0
Phosphatic manure	7.0	4.0	10.1	596	36,774	25.6	1.5	1.4
Compost	7.2	1.0	13.4	596	36,774	25.9	3.0	2.8
Microdoses of fertilizer	1.2	0.1	2.3	596	36,774	10.9	0.5	1.2
Improved agriculture water management non-irrigation-based practices/technologies								
Agricultural half-moons	0.5	-0.1	1.2	596	36,774	7.2	0.3	1.1
Improved climate adaptation/climate risk management practices/technologies								

Table A5. BHA Niger Baseline Indicators - Wadata

Indicators, 95% Confidence Intervals and Base Population [Niger, 2020]

	Indicator Value	Confidence Interval Lower	Confidence Interval Upper	Number of Records	Weighted Population	Standard Deviation	Standard Error	DEFT
Use of climate information (rain forecast, disaster risks, etc.)	0.0			596	36,774	0.0		0.0
Improved post-harvest handling and storage practices/technologies								
Locally made storage structures such as sheet metal silos	32.3	18.7	45.8	469	29,535	46.8	6.6	3.0
Sealed/airtight bags	6.4	4.3	8.6	469	29,535	24.5	1.0	0.9
Community storage facilities, including warehouse receipting	3.8	0.9	6.6	469	29,535	19.1	1.4	1.6
Use of solar or fuel-powered dryers to reduce post-harvest moisture	0.4	-0.3	1.1	469	29,535	6.1	0.3	1.2
Seed or grain treatment techniques including botanical pest control agents or phytosanitary irradiation	0.0			469	29,535	0.0		0.0
Grain treatment with agro-chemicals	0.0			469	29,535	0.0		0.0
Triple bags for cowpea grain preservation	2.6	0.0	5.2	469	29,535	16.0	1.3	1.7
Other post-harvest practices that reduce pre-storage losses	0.3	-0.1	0.7	469	29,535	5.3	0.2	0.8
Other improved practices/technologies								
Performing at least three weedings	10.3	3.6	17.0	596	36,774	30.4	3.3	2.6
Millet								
Crop genetics practices/technologies								
Use of improved seeds	0.3	-0.3	0.9	677	41,678	5.3	0.3	1.4
Cultural practices/technologies								
Control of sida cordifolia growth	1.1	0.2	1.9	677	41,678	10.2	0.4	1.0
Crop association	33.0	18.9	47.2	677	41,678	47.1	6.9	3.8
Crop rotation	1.2	0.1	2.2	677	41,678	10.7	0.5	1.3
Sowing after useful rain	20.3	10.8	29.9	677	41,678	40.3	4.6	3.0
Improved natural resources or ecosystem management practices/technologies								
Farmer managed natural regeneration (fmnr)	36.0	23.1	48.9	677	41,678	48.0	6.2	3.4
Delimitation of animal corridors and pasture areas	24.5	17.7	31.3	677	41,678	43.1	3.3	2.0
Protection of ponds against silting up	8.0	4.2	11.7	677	41,678	27.1	1.8	1.8
Functional community-based conflict management mechanisms	1.4	0.2	2.6	677	41,678	11.8	0.6	1.3
Improved pest and disease management practices/technologies								
Delay of seedlings at third or fourth rains to control pests	0.0			677	41,678	0.0		0.0
Seed treatment with fungicides	8.3	3.5	13.0	677	41,678	27.6	2.3	2.2
Improved soil-related fertility and conservation practices/technologies								
Zai pits	1.7	-0.3	3.8	677	41,678	13.0	1.0	2.0
Organic manure	57.5	44.4	70.6	677	41,678	49.5	6.3	3.3
Phosphatic manure	7.1	3.8	10.3	677	41,678	25.6	1.6	1.6
Compost	8.0	1.0	14.9	677	41,678	27.1	3.4	3.2
Microdoses of fertilizer	0.8	0.0	1.7	677	41,678	9.0	0.4	1.2
Improved agriculture water management non-irrigation-based practices/technologies								
Agricultural half-moons	0.3	-0.2	0.7	677	41,678	5.2	0.2	1.1
Improved climate adaptation/climate risk management practices/technologies								
Use of climate information (rain forecast, disaster risks, etc.)	0.0			677	41,678	0.0		0.0
Improved post-harvest handling and storage practices/technologies								
Locally made storage structures such as sheet metal silos	30.4	16.6	44.3	590	37,128	46.0	6.7	3.5
Sealed/airtight bags	6.6	4.4	8.9	590	37,128	24.9	1.1	1.1
Community storage facilities, including warehouse receipting	4.4	1.2	7.6	590	37,128	20.5	1.6	1.8
Use of solar or fuel-powered dryers to reduce post-harvest moisture	0.0			590	37,128	0.0		0.0
Seed or grain treatment techniques including botanical pest control agents or phytosanitary irradiation	0.0			590	37,128	0.0		0.0
Grain treatment with agro-chemicals	0.2	-0.2	0.7	590	37,128	4.7	0.2	1.1
Triple bags for cowpea grain preservation	2.9	0.7	5.2	590	37,128	16.9	1.1	1.6
Other post-harvest practices that reduce pre-storage losses	0.3	-0.2	0.8	590	37,128	5.7	0.2	1.0
Other improved practices/technologies								
Performing at least three weedings	12.2	4.6	19.8	677	41,678	32.7	3.7	2.9
Cowpeas								
Crop genetics practices/technologies								
Use of improved seeds	0.4	-0.1	0.9	712	43,429	6.3	0.3	1.1
Cultural practices/technologies								
Control of sida cordifolia growth	0.5	-0.1	1.0	712	43,429	6.8	0.3	1.1
Crop association	31.3	17.6	45.0	712	43,429	46.4	6.6	3.8
Crop rotation	0.9	0.2	1.6	712	43,429	9.3	0.3	1.0
Sowing after useful rain	20.7	10.1	31.4	712	43,429	40.6	5.2	3.4
Improved natural resources or ecosystem management practices/technologies								
Farmer managed natural regeneration (fmnr)	37.0	24.0	50.1	712	43,429	48.3	6.3	3.5
Delimitation of animal corridors and pasture areas	24.2	16.9	31.4	712	43,429	42.8	3.5	2.2
Protection of ponds against silting up	7.8	4.0	11.6	712	43,429	26.8	1.8	1.8
Functional community-based conflict management mechanisms	1.6	0.0	3.2	712	43,429	12.6	0.8	1.6
Improved pest and disease management practices/technologies								
Delay of seedlings at third or fourth rains to control pests	0.5	-0.1	1.0	712	43,429	6.8	0.3	1.0
Seed treatment with fungicides	7.8	3.4	12.2	712	43,429	26.8	2.1	2.1
Improved soil-related fertility and conservation practices/technologies								
Zai pits	1.0	-0.4	2.5	712	43,429	10.2	0.7	1.8
Organic manure	57.8	45.0	70.6	712	43,429	49.4	6.2	3.3
Phosphatic manure	7.4	4.3	10.6	712	43,429	26.3	1.5	1.5
Compost	7.0	1.0	13.0	712	43,429	25.5	2.9	3.0
Microdoses of fertilizer	1.3	0.2	2.4	712	43,429	11.2	0.5	1.3
Improved agriculture water management non-irrigation-based practices/technologies								
Agricultural half-moons	0.3	-0.1	0.8	712	43,429	5.9	0.2	1.1

Table A5. BHA Niger Baseline Indicators - Wadata

Indicators, 95% Confidence Intervals and Base Population [Niger, 2020]

	Indicator Value	Confidence Interval Lower	Confidence Interval Upper	Number of Records	Weighted Population	Standard Deviation	Standard Error	DEFT
Improved climate adaptation/climate risk management practices/technologies								
Use of climate information (rain forecast, disaster risks, etc.)	0.0			712	43,429	0.0		0.0
Improved post-harvest handling and storage practices/technologies								
Locally made storage structures such as sheet metal silos	13.1	7.8	18.3	637	39,535	33.7	2.5	1.9
Sealed/airtight bags	8.7	5.6	11.7	637	39,535	28.2	1.5	1.3
Community storage facilities, including warehouse receipting	3.4	0.6	6.2	637	39,535	18.2	1.3	1.9
Use of solar or fuel-powered dryers to reduce post-harvest moisture	0.4	-0.2	1.0	637	39,535	6.1	0.3	1.2
Seed or grain treatment techniques including botanical pest control agents or phytosanitary irradiation	0.0			637	39,535	0.0		0.0
Grain treatment with agro-chemicals	1.9	-0.8	4.5	637	39,535	13.5	1.3	2.4
Triple bags for cowpea grain preservation	4.4	1.6	7.3	637	39,535	20.6	1.4	1.7
Other post-harvest practices that reduce pre-storage losses	2.2	0.8	3.6	637	39,535	14.7	0.7	1.2
Other improved practices/technologies								
Performing at least three weedings	12.8	5.0	20.7	712	43,429	33.5	3.8	3.0
Peanuts (groundnuts)								
Crop genetics practices/technologies								
Use of improved seeds	2.1	-0.7	4.9	117	7,391	14.3	1.3	1.0
Cultural practices/technologies								
Control of sida cordifolia growth	2.2	-0.2	4.5	117	7,391	14.7	1.1	0.8
Crop association	17.8	6.2	29.5	117	7,391	38.4	5.5	1.6
Crop rotation	1.1	-1.0	3.2	117	7,391	10.5	1.0	1.0
Sowing after useful rain	20.2	2.6	37.8	117	7,391	40.3	8.4	2.2
Improved natural resources or ecosystem management practices/technologies								
Farmer managed natural regeneration (fmnr)	46.6	33.1	60.0	117	7,391	50.1	6.4	1.4
Delimitation of animal corridors and pasture areas	45.1	28.7	61.5	117	7,391	50.0	7.8	1.7
Protection of ponds against silting up	23.6	11.1	36.1	117	7,391	42.6	6.0	1.5
Functional community-based conflict management mechanisms	1.7	-0.9	4.4	117	7,391	13.1	1.3	1.0
Improved pest and disease management practices/technologies								
Delay of seedlings at third or fourth rains to control pests	0.0			117	7,391	0.0		0.0
Seed treatment with fungicides	2.2	-1.0	5.3	117	7,391	14.6	1.5	1.1
Improved soil-related fertility and conservation practices/technologies								
Zai pits	2.6	-2.5	7.6	117	7,391	15.9	2.4	1.6
Organic manure	84.5	73.6	95.4	117	7,391	36.4	5.2	1.5
Phosphatic manure	8.7	2.4	14.9	117	7,391	28.3	3.0	1.1
Compost	3.1	-0.2	6.3	117	7,391	17.3	1.6	1.0
Microdoses of fertilizer	1.8	-1.1	4.6	117	7,391	13.3	1.4	1.1
Improved agriculture water management non-irrigation-based practices/technologies								
Agricultural half-moons	1.3	-1.2	3.8	117	7,391	11.3	1.2	1.1
Improved climate adaptation/climate risk management practices/technologies								
Use of climate information (rain forecast, disaster risks, etc.)	0.0			117	7,391	0.0		0.0
Improved post-harvest handling and storage practices/technologies								
Locally made storage structures such as sheet metal silos	4.1	-0.4	8.6	97	6,283	19.9	2.1	1.1
Sealed/airtight bags	5.9	0.8	10.9	97	6,283	23.6	2.4	1.0
Community storage facilities, including warehouse receipting	10.5	0.0	21.0	97	6,283	30.8	5.0	1.6
Use of solar or fuel-powered dryers to reduce post-harvest moisture	1.2	-1.2	3.5	97	6,283	10.7	1.1	1.0
Seed or grain treatment techniques including botanical pest control agents or phytosanitary irradiation	1.3	-1.1	3.7	97	6,283	11.4	1.2	1.0
Grain treatment with agro-chemicals	0.0			97	6,283	0.0		0.0
Triple bags for cowpea grain preservation	0.0			97	6,283	0.0		0.0
Other post-harvest practices that reduce pre-storage losses	0.0			97	6,283	0.0		0.0
Other improved practices/technologies								
Performing at least three weedings	2.4	-0.4	5.2	117	7,391	15.3	1.3	0.9
Goats								
Improved fodder production	6.8	2.1	11.5	260	16,281	25.2	2.3	1.5
Use of licking and/or multi-nutritional block	13.1	4.5	21.7	260	16,281	33.8	4.2	2.0
Animal selection	8.7	4.0	13.4	260	16,281	28.2	2.3	1.3
Vaccinations	17.3	10.3	24.2	260	16,281	37.9	3.4	1.4
Antiparasitic treatments	26.6	16.1	37.0	260	16,281	44.3	5.1	1.8
Veterinary monitoring of food quality and quantity over time	1.8	0.0	3.6	260	16,281	13.4	0.9	1.1
Weight monitoring	0.3	-0.3	0.8	260	16,281	5.2	0.3	0.8
Optimum weight-market price criteria for the sale decision	0.0			260	16,281	0.0		0.0
Use of para-veterinary services for goats and sheep	0.8	-0.3	1.9	260	16,281	9.0	0.5	1.0
Sheep								
Improved fodder production	7.4	0.7	14.1	111	7,094	26.3	3.2	1.3
Use of licking and/or multi-nutritional block	12.5	4.2	20.8	111	7,094	33.2	4.0	1.3
Animal selection	10.5	2.4	18.7	111	7,094	30.8	3.9	1.3
Vaccinations	20.1	9.8	30.4	111	7,094	40.3	5.0	1.3
Antiparasitic treatments	29.6	19.0	40.1	111	7,094	45.8	5.1	1.2
Veterinary monitoring of food quality and quantity over time	0.8	-0.8	2.5	111	7,094	9.1	0.8	0.9
Weight monitoring	0.0			111	7,094	0.0		0.0
Optimum weight-market price criteria for the sale decision	0.0			111	7,094	0.0		0.0
Use of para-veterinary services for goats and sheep	0.8	-0.8	2.5	111	7,094	9.1	0.8	0.9
Poultry								
Use of improved poultry variety/breed	8.6	1.0	16.2	146	9,787	28.1	3.7	1.6
Use of improved feed	7.2	1.0	13.5	146	9,787	26.0	3.0	1.4

Table A5. BHA Niger Baseline Indicators - Wadata

Indicators, 95% Confidence Intervals and Base Population [Niger, 2020]

	Indicator Value	Confidence Interval Lower	Confidence Interval Upper	Number of Records	Weighted Population	Standard Deviation	Standard Error	DEFT
Use of improved shelters	5.5	0.3	10.8	146	9,787	22.9	2.5	1.3
Vaccinations	3.5	0.4	6.6	146	9,787	18.4	1.5	1.0
Use of veterinary products and services (antibiotics, vitamins, etc.)	5.9	0.5	11.2	146	9,787	23.6	2.6	1.3
WOMEN'S HEALTH AND NUTRITION INDICATORS								
Percentage of women of reproductive age consuming a diet of minimum diversity (MDD-W)	38.9	30.7	47.1	747	45,600	48.8	4.0	2.2
15-19 years	43.2	31.3	55.1	197	11,694	50.3	5.8	1.6
20-49 years	37.4	29.6	45.3	550	33,906	48.2	3.8	1.9
Percent of births receiving at least 4 antenatal care (ANC) visits during pregnancy	36.3	30.2	42.4	448	27,319	48.1	3.0	1.3
Contraceptive prevalence rate (CPR)	14.1	7.4	20.8	488	30,305	34.9	3.3	2.1
Modern	13.8	7.2	20.4	488	30,305	34.5	3.2	2.0
Traditional	0.3	-0.2	0.8	488	30,305	5.8	0.2	0.9
Percent of women in union who have knowledge of modern family planning methods that can be used to delay or avoid pregnancy	61.2	51.5	70.9	594	36,665	48.8	4.7	2.4
15-19 years	47.7	34.0	61.4	94	5,804	50.2	6.6	1.3
20-29 years	60.5	48.4	72.5	265	16,230	49.0	5.8	1.9
30-49 years	67.4	59.5	75.2	235	14,631	47.0	3.8	1.2
Percent of women in union who made decisions about modern family planning methods in the past 12 months	68.1	52.7	83.5	93	5,054	46.9	7.4	1.5
Decision Actors								
Alone	32.5	22.3	42.8	93	5,054	47.1	4.9	1.0
Jointly	35.6	19.2	51.9	93	5,054	48.1	7.9	1.6
Age								
15-19 years	^	^	^	10	540	^	^	^
20-29 years	68.7	49.8	87.6	54	2,736	46.8	8.9	1.4
30-49 years	^	^	^	29	1,778	^	^	^
CHILDREN'S HEALTH AND NUTRITION INDICATORS								
Percentage of children 6-23 months consuming a diet of minimum dietary diversity (MDD-C)	46.3	34.2	58.5	216	12,669	50.0	5.9	1.7
Male	45.3	33.6	56.9	119	6,731	51.2	5.6	1.2
Female	47.5	32.0	63.0	97	5,938	48.5	7.5	1.5
Percentage of children under age 5 with diarrhea in the last two weeks (Total)	37.7	32.2	43.3	820	48,218	48.5	2.7	1.6
Male	41.2	33.2	49.1	409	23,266	50.1	3.8	1.6
Female	34.5	29.4	39.7	411	24,952	46.8	2.5	1.1
Percentage of children under age 5 with diarrhea treated with ORT (Total)	44.6	35.3	54.0	295	18,198	49.8	4.5	1.6
Male	43.4	32.2	54.7	155	9,578	49.3	5.4	1.4
Female	45.9	34.2	57.6	140	8,620	48.4	5.7	1.4
GENDER - CASH								
Percent of women/men in union who earned cash in the past 12 months								
Male	47.6	37.2	58.0	654	43,111	50.0	5.0	2.6
15-19 years				12	939			
20-29 years	42.4	28.1	56.6	122	8,123	49.2	6.9	1.5
30-49 years	51.1	39.8	62.4	348	23,153	49.8	5.5	2.0
≥50 years	45.2	34.6	55.7	172	10,896	50.8	5.1	1.3
Female	21.4	14.2	28.7	772	49,698	41.1	3.5	2.4
15-19 years	8.2	2.3	14.0	120	7,915	27.1	2.8	1.2
20-29 years	22.1	13.4	30.9	286	18,391	41.6	4.2	1.7
30-49 years	23.6	15.6	31.6	251	16,456	42.1	3.9	1.5
≥50 years	29.6	19.1	40.1	115	6,936	47.2	5.1	1.2
Percent of women in union and earning cash who report participation in decisions about the use of self-earned cash	NA	NA	NA	NA	NA	NA	NA	NA
15-19 years	NA	NA	NA	NA	NA	NA	NA	NA
20-29 years	NA	NA	NA	NA	NA	NA	NA	NA
30-49 years	NA	NA	NA	NA	NA	NA	NA	NA
≥50 years	NA	NA	NA	NA	NA	NA	NA	NA
Percent of women in union and earning cash who report participation in decisions about the use of spouse/partner's self-earned cash	NA	NA	NA	NA	NA	NA	NA	NA
15-19 years	NA	NA	NA	NA	NA	NA	NA	NA
20-29 years	NA	NA	NA	NA	NA	NA	NA	NA
30-49 years	NA	NA	NA	NA	NA	NA	NA	NA
≥50 years	NA	NA	NA	NA	NA	NA	NA	NA
Percent of men in union and earning cash who report spouse/partner participation in decisions about the use of self-earned cash	NA	NA	NA	NA	NA	NA	NA	NA
15-19 years	NA	NA	NA	NA	NA	NA	NA	NA
20-29 years	NA	NA	NA	NA	NA	NA	NA	NA
30-49 years	NA	NA	NA	NA	NA	NA	NA	NA
≥50 years	NA	NA	NA	NA	NA	NA	NA	NA
GENDER - CREDIT AND GROUP PARTICIPATION								
Percent of women/men who are members of a community group								
Male	48.7	40.0	57.3	478	34,449	50.0	4.2	1.8
15-19 years	^	^	^	2	121	^	^	^
20-29 years	53.8	39.4	68.1	76	5,450	50.0	7.0	1.2
30-49 years	46.1	36.6	55.6	270	19,824	49.4	4.6	1.5
≥50 years	51.3	40.6	62.0	130	9,054	50.9	5.2	1.2
Female	33.8	24.6	42.9	604	36,011	47.3	4.4	2.3
15-19 years	36.0	24.3	47.7	90	5,396	47.9	5.7	1.1
20-29 years	33.8	24.8	42.9	246	14,802	47.1	4.4	1.5
30-49 years	30.1	16.8	43.4	195	11,692	45.8	6.4	2.0
≥50 years	41.0	27.3	54.7	73	4,121	50.6	6.6	1.1
Percent of women/men in a union with access to credit								
Male	70.3	63.0	77.5	478	34,449	45.8	3.5	1.7
15-19 years	^	^	^	2	121	^	^	^

Table A5. BHA Niger Baseline Indicators - Wadata

Indicators, 95% Confidence Intervals and Base Population [Niger, 2020]

	Indicator Value	Confidence Interval Lower	Confidence Interval Upper	Number of Records	Weighted Population	Standard Deviation	Standard Error	DEFT
20-29 years	67.6	58.7	76.5	76	5,450	47.0	4.3	0.8
30-49 years	70.3	60.4	80.1	270	19,824	45.3	4.8	1.7
≥50 years	71.4	63.4	79.4	130	9,054	46.0	3.9	1.0
Female	61.9	54.9	68.8	604	36,011	48.6	3.4	1.7
15-19 years	44.4	33.3	55.6	90	5,396	49.6	5.4	1.0
20-29 years	66.2	57.6	74.7	246	14,802	47.1	4.1	1.4
30-49 years	64.0	53.0	74.9	195	11,692	47.9	5.3	1.5
≥50 years	63.4	52.0	74.8	73	4,121	49.5	5.5	1.0
Percent of men in a union who make decisions about credit	85.8	78.1	93.5	330	24,203	34.9	3.7	1.9
Decision Actors								
Alone	56.6	47.3	65.8	330	24,203	49.6	4.5	1.6
Jointly	29.3	23.9	34.6	330	24,203	45.6	2.6	1.0
Age								
15-19 years	^	^	^	2	121	^	^	^
20-29 years	74.0	56.5	91.6	50	3,684	44.3	8.4	1.3
30-49 years	88.2	80.5	96.0	188	13,930	32.3	3.8	1.6
≥50 years	87.0	76.6	97.4	90	6,467	33.8	5.0	1.4
Percent of women in a union who make decisions about credit	62.6	55.5	69.6	367	22,284	48.5	3.4	1.4
Decision Actors								
Alone	33.7	27.3	40.0	367	22,284	47.3	3.1	1.2
Jointly	28.9	24.2	33.7	367	22,284	45.4	2.3	1.0
Age								
15-19 years	45.6	25.0	66.2	39	2,398	50.5	9.8	1.2
20-29 years	61.6	50.3	72.9	159	9,794	48.8	5.5	1.4
30-49 years	65.6	58.0	73.2	123	7,479	47.7	3.7	0.9
≥50 years	73.1	59.9	86.4	46	2,612	44.8	6.3	1.0
RESILIENCE-RELATED								
Proportion of households that believe local government will respond effectively to future shocks and stresses	55.6	50.7	60.6	735	41,354	49.7	2.4	1.3
Male and female adults	55.1	49.1	61.0	576	32,461	49.7	2.9	1.4
Adult female, no adult male	55.2	43.3	67.1	98	5,324	50.7	5.8	1.1
Adult male, no adult female	64.3	49.4	79.2	58	3,358	47.3	7.2	1.2
Child, no adults	^	^	^	3	211	^	^	^
Index of social capital at the household level (overall index)	57.5	53.4	61.5	735	41,354	37.5	2.0	1.4
Male and female adults	57.8	53.2	62.5	576	32,461	37.5	2.2	1.4
Adult female, no adult male	54.5	44.4	64.7	98	5,324	39.5	4.9	1.2
Adult male, no adult female	60.2	50.5	69.9	58	3,358	34.4	4.7	1.0
Child, no adults	^	^	^	3	211	^	^	^
Component								
Bonding sub-index	65.0	60.8	69.2	735	41,354	40.1	2.0	1.4
Bridging sub-index	49.9	45.2	54.6	735	41,354	40.9	2.3	1.5
Proportion of households participating in group-based savings, micro-finance or lending programs	2.8	0.7	4.9	735	41,354	16.5	1.0	1.6
Male and female adults	2.6	0.6	4.6	576	32,461	15.9	1.0	1.4
Adult female, no adult male	5.2	0.1	10.3	98	5,324	22.7	2.5	1.1
Adult male, no adult female	1.1	-1.2	3.4	58	3,358	10.3	1.1	0.8
Child, no adults	^	^	^	3	211	^	^	^
Financing type								
Savings	2.0	0.4	3.6	735	41,354	13.9	0.8	1.5
Credit	1.7	0.4	3.0	735	41,354	12.9	0.6	1.3

NA : Not available

^ Results not statistically reliable, n<30.

NOTES:

[1] Number of records for improved storage practices may differ from that of other improved agricultural practices because questions on the use of improved practices were generally asked as part of the main agriculture module while questions on the use of improved storage practices were asked seperately as part of the module on crop yield. The numbers of responding farmers differ across the two modules.

Table 14: A5 BHA Niger Baseline Indicators - Comparison Across RFSA Areas

Table A5 BHA Niger Baseline Indicators - Comparison Across RFSA Areas

Indicators, 95% Confidence Intervals and Base Population [Niger, 2020]

	BASELINE INDICATOR VALUES			
	ALL	GIRMA	HAMZARI	WADATA
FOOD SECURITY INDICATORS				
Percentage of households with poor food consumption score (FCS)	5.7	5.8	8.0	3.8
Male and female adults	5.6	5.9	7.3	3.2
Adult female, no adult male	8.3	7.1	20.6	7.8
Adult male, no adult female	2.7	1.6	^	3.1
Child, no adults	^	^	^	^
Percentage of households with borderline FCS	16.1	18.5	15.5	10.4
Male and female adults	15.3	17.6	15.3	9.1
Adult female, no adult male	18.0	19.2	18.6	15.5
Adult male, no adult female	23.0	28.9	^	14.5

Table A5 BHA Niger Baseline Indicators - Comparison Across RFSA Areas

Indicators, 95% Confidence Intervals and Base Population [Niger, 2020]

	BASELINE INDICATOR VALUES			
	ALL	GIRMA	HAMZARI	WADATA
Child, no adults	^	^	^	^
Percentage of households with acceptable FCS	78.3	75.6	76.5	85.9
Male and female adults	79.2	76.4	77.4	87.7
Adult female, no adult male	73.7	73.7	60.8	76.7
Adult male, no adult female	74.3	69.5	^	82.4
Child, no adults	^	^	^	^
Food consumption score (0-112)	50.8	48.3	51.5	56.2
Male and female adults	51.2	48.4	52.1	57.7
Adult female, no adult male	47.9	46.5	42.9	52.2
Adult male, no adult female	50.3	51.8	^	48.7
Child, no adults	^	^	^	^
WASH INDICATORS				
Percentage of households using a basic water service	NA	NA	NA	NA
Distance/Time from service	NA	NA	NA	NA
On premises	NA	NA	NA	NA
≤ 30-minute roundtrip	NA	NA	NA	NA
Gendered household type	NA	NA	NA	NA
Male and female adults	NA	NA	NA	NA
Adult female, no adult male	NA	NA	NA	NA
Adult male, no adult female	NA	NA	NA	NA
Child, no adults	NA	NA	NA	NA
Percentage of households with access to a basic sanitation facility	5.9	4.5	13.0	4.4
Male and female adults	6.5	5.1	13.1	4.6
Adult female, no adult male	3.2	1.6	^	5.2
Adult male, no adult female	2.0	0.7	^	0.5
Child, no adults	^	^	^	^
Percentage of households with soap/ash and water at a handwashing station on premises	12.1	8.9	40.6	18.2
Male and female adults	12.2	8.7	39.8	19.5
Adult female, no adult male	8.8	6.8	^	11.2
Adult male, no adult female	16.9	17.6	^	15.0
Child, no adults	^	^	^	^
AGRICULTURAL INDICATORS				
Percentage of farmers who used financial services in the past 12 months	32.0	36.6	23.0	25.8
Male	36.5	41.2	28.7	30.0
Female	27.1	31.9	17.2	20.1
Percentage of farmers who used improved storage practices in the past 12 months	36.1	27.5	58.3	43.2
Male	42.3	33.8	66.8	45.0
Female	26.8	18.5	43.2	40.5
Proportion of producers who have applied targeted improved management practices or technologies				
Sorghum				
Crop genetics practices/technologies				
Use of improved seeds	7.7	8.7	12.6	0.6
Cultural practices/technologies				
Control of sida cordifolia growth	12.2	14.2	18.9	0.5
Crop association	49.0	48.6	74.1	28.9
Crop rotation	1.6	1.4	3.6	0.5
Sowing after useful rain	33.8	37.1	39.4	19.0
Improved natural resources or ecosystem management practices/technologies				
Farmer managed natural regeneration (fmnr)	37.4	42.4	19.3	36.8
Delimitation of animal corridors and pasture areas	35.2	38.8	33.3	25.5
Protection of ponds against silting up	6.9	5.8	9.5	7.9
Functional community-based conflict management mechanisms	3.7	4.6	2.7	1.7
Improved pest and disease management practices/technologies				
Delay of seedlings at third or fourth rains to control pests	5.9	7.0	8.9	0.2
Seed treatment with fungicides	5.1	1.8	13.5	8.2
Improved soil-related fertility and conservation practices/technologies				
Zai pits	6.1	6.0	12.2	1.5

Table A5 BHA Niger Baseline Indicators - Comparison Across RFSA Areas

Indicators, 95% Confidence Intervals and Base Population [Niger, 2020]

	BASELINE INDICATOR VALUES			
	ALL	GIRMA	HAMZARI	WADATA
Organic manure	64.4	65.4	66.0	59.9
Phosphatic manure	8.4	8.4	9.9	7.0
Compost	23.7	27.6	29.1	7.2
Microdoses of fertilizer	2.9	2.8	5.4	1.2
Improved agriculture water management non-irrigation-based practices/technologies				
Agricultural half-moons	1.4	1.5	2.0	0.5
Improved climate adaptation/climate risk management practices/technologies				
Use of climate information (rain forecast, disaster risks, etc.)	0.9	0.8	2.0	0.0
Improved post-harvest handling and storage practices/technologies				
Locally made storage structures such as sheet metal silos	13.2	2.4	37.1	32.3
Sealed/airtight bags	4.7	3.0	10.0	6.4
Community storage facilities, including warehouse receipting	3.3	3.1	3.6	3.8
Use of solar or fuel-powered dryers to reduce post-harvest moisture	0.2	0.1	0.3	0.4
Seed or grain treatment techniques including botanical pest control agents or phytosanitary irradiation	0.3	0.5	0.0	0.0
Grain treatment with agro-chemicals	0.7	0.9	0.7	0.0
Triple bags for cowpea grain preservation	0.5	0.0	0.4	2.6
Other post-harvest practices that reduce pre-storage losses	2.6	3.0	3.6	0.3
Other improved practices/technologies				
Performing at least three weedings	30.4	35.8	34.2	10.3
Millet				
Crop genetics practices/technologies				
Use of improved seeds	7.6	8.6	11.7	0.3
Cultural practices/technologies				
Control of sida cordifolia growth	12.7	14.5	18.9	1.1
Crop association	49.0	48.2	68.7	33.0
Crop rotation	2.4	1.4	7.1	1.2
Sowing after useful rain	34.4	36.6	41.6	20.3
Improved natural resources or ecosystem management practices/technologies				
Farmer managed natural regeneration (fmnr)	37.2	42.9	18.7	36.0
Delimitation of animal corridors and pasture areas	33.1	36.5	30.4	24.5
Protection of ponds against silting up	6.4	5.4	8.4	8.0
Functional community-based conflict management mechanisms	3.4	4.3	2.2	1.4
Improved pest and disease management practices/technologies				
Delay of seedlings at third or fourth rains to control pests	5.1	5.9	7.5	0.0
Seed treatment with fungicides	5.0	2.1	11.3	8.3
Improved soil-related fertility and conservation practices/technologies				
Zai pits	5.8	5.1	12.8	1.7
Organic manure	60.5	61.1	61.5	57.5
Phosphatic manure	9.5	8.8	14.5	7.1
Compost	24.9	27.3	34.3	8.0
Microdoses of fertilizer	2.9	2.3	6.9	0.8
Improved agriculture water management non-irrigation-based practices/technologies				
Agricultural half-moons	1.2	1.3	1.9	0.3
Improved climate adaptation/climate risk management practices/technologies				
Use of climate information (rain forecast, disaster risks, etc.)	0.7	0.7	1.3	0.0
Improved post-harvest handling and storage practices/technologies				
Locally made storage structures such as sheet metal silos	15.1	3.7	40.5	30.4
Sealed/airtight bags	3.8	2.0	7.7	6.6
Community storage facilities, including warehouse receipting	6.0	6.6	5.5	4.4
Use of solar or fuel-powered dryers to reduce post-harvest moisture	0.4	0.5	0.5	0.0
Seed or grain treatment techniques including botanical pest control agents or phytosanitary irradiation	0.2	0.2	0.3	0.0
Grain treatment with agro-chemicals	0.7	0.9	0.7	0.2
Triple bags for cowpea grain preservation	0.8	0.1	1.2	2.9
Other post-harvest practices that reduce pre-storage losses	3.1	3.9	3.2	0.3

Table A5 BHA Niger Baseline Indicators - Comparison Across RFSA Areas

Indicators, 95% Confidence Intervals and Base Population [Niger, 2020]

	BASELINE INDICATOR VALUES			
	ALL	GIRMA	HAMZARI	WADATA
Other improved practices/technologies				
Performing at least three weedings	30.9	35.1	36.2	12.2
Cowpeas				
Crop genetics practices/technologies				
Use of improved seeds	8.4	9.9	12.4	0.4
Cultural practices/technologies				
Control of sida cordifolia growth	12.4	14.1	20.1	0.5
Crop association	49.0	48.9	71.1	31.3
Crop rotation	1.9	1.2	5.7	0.9
Sowing after useful rain	33.4	35.4	41.1	20.7
Improved natural resources or ecosystem management practices/technologies				
Farmer managed natural regeneration (fmnr)	37.6	42.5	18.8	37.0
Delimitation of animal corridors and pasture areas	33.1	36.5	30.8	24.2
Protection of ponds against silting up	6.3	5.2	8.9	7.8
Functional community-based conflict management mechanisms	3.6	4.4	2.6	1.6
Improved pest and disease management practices/technologies				
Delay of seedlings at third or fourth rains to control pests	6.8	7.5	11.9	0.5
Seed treatment with fungicides	5.1	2.1	13.5	7.8
Improved soil-related fertility and conservation practices/technologies				
Zai pits	5.2	4.0	15.2	1.0
Organic manure	59.8	60.0	61.5	57.8
Phosphatic manure	9.6	8.7	15.7	7.4
Compost	23.4	25.8	34.5	7.0
Microdoses of fertilizer	2.6	2.2	5.9	1.3
Improved agriculture water management non-irrigation-based practices/technologies				
Agricultural half-moons	1.6	2.0	1.7	0.3
Improved climate adaptation/climate risk management practices/technologies				
Use of climate information (rain forecast, disaster risks, etc.)	0.5	0.5	1.5	0.0
Improved post-harvest handling and storage practices/technologies				
Locally made storage structures such as sheet metal silos	4.7	1.7	7.1	13.1
Sealed/airtight bags	8.4	4.0	28.9	8.7
Community storage facilities, including warehouse receipting	1.8	0.7	5.2	3.4
Use of solar or fuel-powered dryers to reduce post-harvest moisture	0.3	0.3	0.5	0.4
Seed or grain treatment techniques including botanical pest control agents or phytosanitary irradiation	1.0	1.3	1.0	0.0
Grain treatment with agro-chemicals	2.0	1.4	5.1	1.9
Triple bags for cowpea grain preservation	3.3	1.1	11.8	4.4
Other post-harvest practices that reduce pre-storage losses	7.2	9.7	2.5	2.2
Other improved practices/technologies				
Performing at least three weedings	29.9	33.3	37.4	12.8
Peanuts (groundnuts)				
Crop genetics practices/technologies				
Use of improved seeds	10.4	9.9	14.6	2.1
Cultural practices/technologies				
Control of sida cordifolia growth	13.6	12.3	21.5	2.2
Crop association	48.4	44.8	69.9	17.8
Crop rotation	2.4	1.0	7.2	1.1
Sowing after useful rain	33.2	31.3	43.2	20.2
Improved natural resources or ecosystem management practices/technologies				
Farmer managed natural regeneration (fmnr)	40.0	46.0	18.5	46.6
Delimitation of animal corridors and pasture areas	37.8	38.6	32.6	45.1
Protection of ponds against silting up	8.2	6.3	9.3	23.6
Functional community-based conflict management mechanisms	5.2	6.2	3.4	1.7
Improved pest and disease management practices/technologies				
Delay of seedlings at third or fourth rains to control pests	10.6	12.0	9.6	0.0

Table A5 BHA Niger Baseline Indicators - Comparison Across RFSA Areas

Indicators, 95% Confidence Intervals and Base Population [Niger, 2020]

	BASELINE INDICATOR VALUES			
	ALL	GIRMA	HAMZARI	WADATA
Seed treatment with fungicides	5.1	2.2	15.6	2.2
Improved soil-related fertility and conservation practices/technologies				
Zai pits	6.2	4.3	13.3	2.6
Organic manure	67.5	65.5	68.5	84.5
Phosphatic manure	11.0	9.3	17.2	8.7
Compost	27.3	27.2	35.4	3.1
Microdoses of fertilizer	3.2	2.5	6.1	1.8
Improved agriculture water management non-irrigation-based practices/technologies				
Agricultural half-moons	1.7	1.8	1.8	1.3
Improved climate adaptation/climate risk management practices/technologies				
Use of climate information (rain forecast, disaster risks, etc.)	0.4	0.0	1.9	0.0
Improved post-harvest handling and storage practices/technologies				
Locally made storage structures such as sheet metal silos	3.5	2.2	8.0	4.1
Sealed/airtight bags	17.0	12.8	35.4	5.9
Community storage facilities, including warehouse receipting	2.1	0.9	4.0	10.5
Use of solar or fuel-powered dryers to reduce post-harvest moisture	0.7	0.7	0.3	1.2
Seed or grain treatment techniques including botanical pest control agents or phytosanitary irradiation	0.5	0.3	0.8	1.3
Grain treatment with agro-chemicals	0.5	0.5	0.7	0.0
Triple bags for cowpea grain preservation	2.4	1.1	7.8	0.0
Other post-harvest practices that reduce pre-storage losses	5.0	6.1	2.7	0.0
Other improved practices/technologies				
Performing at least three weedings	25.7	24.4	37.7	2.4
Goats				
Improved fodder production	9.3	11.0	4.6	6.8
Use of licking and/or multi-nutritional block	7.5	7.4	3.9	13.1
Animal selection	10.8	12.2	7.0	8.7
Vaccinations	36.6	37.5	48.2	17.3
Antiparasitic treatments	35.7	38.2	33.8	26.6
Veterinary monitoring of food quality and quantity over time	1.5	1.2	2.2	1.8
Weight monitoring	3.4	4.0	3.3	0.3
Optimum weight-market price criteria for the sale decision	0.5	0.3	1.5	0.0
Use of para-veterinary services for goats and sheep	4.9	6.5	2.1	0.8
Sheep				
Improved fodder production	9.6	11.5	5.4	7.4
Use of licking and/or multi-nutritional block	7.6	7.4	4.8	12.5
Animal selection	13.6	16.7	5.9	10.5
Vaccinations	38.0	37.8	51.9	20.1
Antiparasitic treatments	39.2	43.2	33.8	29.6
Veterinary monitoring of food quality and quantity over time	2.4	2.3	4.1	0.8
Weight monitoring	3.0	3.5	3.6	0.0
Optimum weight-market price criteria for the sale decision	0.1	0.0	0.3	0.0
Use of para-veterinary services for goats and sheep	8.3	11.7	2.9	0.8
Poultry				
Use of improved poultry variety/breed	10.3	11.2	8.8	8.6
Use of improved feed	9.7	10.7	8.6	7.2
Use of improved shelters	9.6	10.7	11.1	5.5
Vaccinations	17.4	18.8	30.7	3.5
Use of veterinary products and services (antibiotics, vitamins, etc.)	9.8	9.8	15.5	5.9
WOMEN'S HEALTH AND NUTRITION INDICATORS				
Percentage of women of reproductive age consuming a diet of minimum diversity (MDD-W)	44.5	44.5	49.8	38.9
15-19 years	48.5	52.2	47.5	43.2
20-49 years	43.4	42.7	50.5	37.4
Percent of births receiving at least 4 antenatal care (ANC) visits during pregnancy	47.8	48.4	56.9	36.3
Contraceptive prevalence rate (CPR)	16.2	14.8	21.8	14.1

Table A5 BHA Niger Baseline Indicators - Comparison Across RFSA Areas

Indicators, 95% Confidence Intervals and Base Population [Niger, 2020]

	BASELINE INDICATOR VALUES			
	ALL	GIRMA	HAMZARI	WADATA
Modern	14.2	12.7	18.4	13.8
Traditional	2.3	2.5	3.6	0.3
Percent of women in union who have knowledge of modern family planning methods that can be used to delay or avoidpregnancy	70.0	71.6	74.5	61.2
15-19 years	59.2	63.2	62.2	47.7
20-29 years	72.2	75.3	76.9	60.5
30-49 years	71.3	70.7	75.5	67.4
Percent of women in union who made decisions about modern family planning methods in the past 12 months	77.8	81.0	77.3	68.1
Decision Actors				
Alone	39.0	40.5	39.9	32.5
Jointly	38.8	40.5	37.4	35.6
Age				
15-19 years	0.0	^	^	^
20-29 years	76.6	78.9	77.1	68.7
30-49 years	76.1	80.0	76.1	^
CHILDREN'S HEALTH AND NUTRITION INDICATORS				
Percentage of children 6-23 months consuming a diet of minimum dietary diversity (MDD-C)	42.9	37.8	54.6	46.3
Male	41.7	36.9	53.8	45.3
Female	44.2	38.8	55.3	47.5
Percentage of children under age 5 with diarrhea in the last two weeks (Total)	32.3	33.0	24.5	37.7
Male	33.7	34.0	25.6	41.2
Female	30.9	32.1	23.4	34.5
Percentage of children under age 5 with diarrhea treated with ORT (Total)	47.7	47.9	52.0	44.6
Male	44.6	43.5	50.7	43.4
Female	51.1	52.6	53.3	45.9
GENDER - CASH				
Percent of women/men in union who earned cash in the past 12 months				
Male	61.3	65.5	66.6	47.6
15-19 years	^	^	^	0.0
20-29 years	63.6	70.8	71.3	42.4
30-49 years	67.4	74.7	68.9	51.1
≥50 years	52.0	50.7	61.8	45.2
Female	32.8	35.6	37.5	21.4
15-19 years	18.3	24.1	16.4	8.2
20-29 years	27.8	29.2	30.8	22.1
30-49 years	41.6	45.3	47.3	23.6
≥50 years	34.0	34.5	37.8	29.6
Percent of women in union and earning cash who report participation in decisions about the use of self-earned cash	NA	NA	NA	NA
15-19 years	NA	NA	NA	NA
20-29 years	NA	NA	NA	NA
30-49 years	NA	NA	NA	NA
≥50 years	NA	NA	NA	NA
Percent of women in union and earning cash who report participation in decisions about the use of spouse/partner's self-earned cash	NA	NA	NA	NA
15-19 years	NA	NA	NA	NA
20-29 years	NA	NA	NA	NA
30-49 years	NA	NA	NA	NA
≥50 years	NA	NA	NA	NA
Percent of men in union and earning cash who report spouse/partner participation in decisions about the use of self-earnedcash	NA	NA	NA	NA
15-19 years	NA	NA	NA	NA
20-29 years	NA	NA	NA	NA
30-49 years	NA	NA	NA	NA
≥50 years	NA	NA	NA	NA
GENDER - CREDIT AND GROUP PARTICIPATION				
Percent of women/men who are members of a community group				
Male	58.2	62.1	58.2	48.7
15-19 years	^	^	^	^
20-29 years	52.8	51.9	55.8	53.8
30-49 years	58.1	63.4	58.5	46.1

Table A5 BHA Niger Baseline Indicators - Comparison Across RFSA Areas

Indicators, 95% Confidence Intervals and Base Population [Niger, 2020]

	BASELINE INDICATOR VALUES			
	ALL	GIRMA	HAMZARI	WADATA
≥50 years	61.8	66.6	58.6	51.3
Female	43.5	45.9	48.0	33.8
15-19 years	37.8	37.0	42.7	36.0
20-29 years	43.5	46.2	47.6	33.8
30-49 years	45.1	47.8	52.5	30.1
≥50 years	45.4	49.2	38.4	41.0
Percent of women/men in a union with access to credit				
Male	72.4	75.1	66.5	70.3
15-19 years	^	^	^	^
20-29 years	69.4	74.0	48.6	67.6
30-49 years	75.3	78.4	72.6	70.3
≥50 years	68.9	70.1	63.5	71.4
Female	61.7	63.5	55.9	61.9
15-19 years	46.5	50.5	37.1	44.4
20-29 years	61.9	61.9	56.4	66.2
30-49 years	68.0	71.4	61.8	64.0
≥50 years	58.6	56.7	58.1	63.4
Percent of men in a union who make decisions about credit	92.0	93.9	93.6	85.8
Decision Actors				
Alone	58.2	52.2	82.6	56.6
Jointly	33.8	41.7	11.0	29.3
Age				
15-19 years	^	^	^	^
20-29 years	84.5	86.2	97.1	74.0
30-49 years	93.8	95.5	95.6	88.2
≥50 years	92.9	95.8	90.4	87.0
Percent of women in a union who make decisions about credit	71.1	72.8	77.0	62.6
Decision Actors				
Alone	33.8	26.9	58.0	33.7
Jointly	37.3	45.9	19.0	28.9
Age				
15-19 years	52.3	51.9	64.7	45.6
20-29 years	70.7	74.2	72.9	61.6
30-49 years	73.8	74.1	82.0	65.6
≥50 years	81.8	85.6	84.3	73.1
RESILIENCE-RELATED				
Proportion of households that believe local government will respond effectively to future shocks and stresses	61.2	63.8	60.1	55.6
Male and female adults	60.7	62.7	61.3	55.1
Adult female, no adult male	66.0	73.4	48.1	55.2
Adult male, no adult female	60.4	61.1	^	64.3
Child, no adults	^	^	^	^
Index of social capital at the household level (overall index)	53.2	50.9	54.8	57.5
Male and female adults	53.2	51.1	54.2	57.8
Adult female, no adult male	50.6	47.9	56.5	54.5
Adult male, no adult female	59.5	56.9	^	60.2
Child, no adults	^	^	^	^
Component				
Bonding sub-index	57.6	54.6	56.8	65.0
Bridging sub-index	48.8	47.2	52.7	49.9
Proportion of households participating in group-based savings, micro-finance or lending programs	8.8	12.9	3.4	2.8
Male and female adults	9.2	13.5	3.7	2.6
Adult female, no adult male	10.0	13.5	0.0	5.2
Adult male, no adult female	0.4	0.0	^	1.1
Child, no adults	^	^	^	^
Financing type				
Savings	7.3	10.9	2.4	2.0
Credit	3.7	5.1	1.5	1.7

Table A5 BHA Niger Baseline Indicators - Comparison Across RFSA Areas

Indicators, 95% Confidence Intervals and Base Population [Niger, 2020]

	BASELINE INDICATOR VALUES			
	ALL	GIRMA	HAMZARI	WADATA

NA : Not available

^ Results not statistically reliable, n<30.

NOTES:

[1] Number of records for improved storage practices may differ from that of other improved agricultural practices because questions on the use of improved practices were generally asked as part of the main agriculture module while questions on the use of improved storage practices were asked seperately as part of the module on crop yield. The numbers of responding farmers differ across the two modules.

ANNEX 6: DESCRIPTIVE TABLES

SOCIO-DEMOGRAPHIC CHARACTERISTICS OF THE STUDY AREA

FOOD CONSUMPTION

AGRICULTURE

WATER, SANITATION, AND HYGIENE (WASH)

MATERNAL AND CHILD HEALTH AND NUTRITION (MCHN)

GENDER ACCESS TO CREDIT AND COMMUNITY PARTICIPATION

RESILIENCE

COVID-19 AWARENESS, MITIGATION PROTOCOLS, IMPACTS, AND COPING STRATEGIES

Table 15: A6.1. Estimated population in the RFSA areas [Baseline Study, Niger 2020]

	Combined RFSAs	Girma	Hamzari	Wadata
Total population	1,143,393	652,177	245,287	245,929
Male	560,495	323,577	117,691	119,227
Female	582,897	328,600	127,596	126,702
Population 15 years or older	486,372	271,904	105,260	109,208
Male	230,870	132,186	47,973	50,710
Female	255,502	139,717	57,287	58,497
Cash earners (15 years or older)	213,998	131,620	43,632	38,746
Male	131,087	81,732	24,539	24,817
Female	82,910	49,888	19,093	13,929
Farmers (15 years or older)	274,281	171,009	52,555	50,716
Male	142,052	86,232	26,525	29,296
Female	132,229	84,778	26,031	21,421
Women of reproductive age (15-49 years)	205,532	110,458	49,240	45,834
Women 15-49 years who are married or in a union	174,765	98,586	39,012	37,167
Women 15-49 years with a live birth within the past five years	135,562	79,721	28,522	27,319
Youth (15-24 years)	198,981	108,641	46,304	44,036
Male	91,027	52,377	21,057	17,592
Female	107,955	56,264	25,247	26,444
Children under 5 years of age	231,243	135,504	47,521	48,218
Male	114,670	67,390	24,015	23,266
Female	116,572	68,114	23,506	24,952
Children 6-23 months of age	61,232	36,332	12,231	12,669
Male	31,971	19,466	5,774	6,731
Female	29,261	16,867	6,456	5,938

Source: BHA 2020 Niger baseline survey weighted population estimates. Based on household counts from the baseline listing operation which defined villages based on the natural boundaries of the "main village."

NOTES: As stipulated by USAID's Feed the Future (FTF) guideline, adults for gendered household type are defined as individuals 18years of age or older. For the interviews and all other analyses, the age of respondents is 15 years or older.

Table 16: A6.2. Household characteristics in the RFSA areas [Baseline Study, Niger 2020]

	Combined RFSAs	Girma	Hamzari	Wadata
Gendered household type (Number of households)[1]	168,308	98,502	28,095	41,711
Male and female adults	141,611	82,656	26,182	32,772
Female adult(s) only	17,548	10,900	1,324	5,324
Male adult(s) only	8,710	4,737	568	3,404
Child(ren) only (no adults)	^	^	^	^
Gendered household type (Percentage of households)	100.0	100.0	100.0	100.0
Male and female adults	84.1	83.9	93.2	78.6
Female adult(s) only	10.4	11.1	4.7	12.8
Male adult(s) only	5.2	4.8	2.0	8.2
Child(ren) only (no adults)	^	^	^	^
Average household size (Number of persons)	6.8	6.6	8.7	5.9
Average number of adults 15 years of age or older per household	2.9	2.8	3.7	2.6
Percentage of households with children under 5 years of age	74.5	75.0	77.9	71.1
Percentage of households with a child 6-23 months of age	31.6	32.2	35.7	27.4

	Combined RFSAs	Girma	Hamzari	Wadata
Household headship (Percentage female)	13.6	14.1	6.3	17.1
Number of responding households	2,261	767	754	740
Male and female adults	1,936	651	705	580
Female adult(s) only	204	76	30	98
Male adult(s) only	114	38	17	59
Child(ren) only (no adults)	7	2	2	3

Source: BHA 2020 Niger baseline survey weighted population estimates. Based on household counts from the baseline listing operation which defined villages based on the natural boundaries of the "main village."

NOTES: As stipulated by USAID's Feed the Future (FTF) guideline, adults for gendered household type are defined as individuals 18 years of age or older. For the interviews and all other analyses, the age for respondents is 15 or older.

^ Results not statistically reliable, n<30.

Table 17: A6.3. Percentage of households receiving social assistance among direct and indirect RFSA participants, by type of assistance [Baseline Study, Niger 2020]

	All households	Direct RFSA participants	Indirect RFSA participants	Sig.a
Combined RFSAs				
interventions	41.4	n/a	n/a	
Receipt of social assistance				
Food rations	22.4	31.3	16.0	**
Nutrition trainings/meetings	27.5	47.5	13.4	***
Agriculture-related trainings/meetings	32.1	53.0	17.3	***
WASH trainings/meetings	42.3	59.3	30.3	***
Number of responding households	2,250	1,104	1,146	
Girma				
interventions	34.8	n/a	n/a	
Receipt of social assistance				
Food rations	19.0	19.2	18.9	ns
Nutrition trainings/meetings	29.6	52.5	17.3	***
Agriculture-related trainings/meetings	36.0	64.4	20.9	***
WASH trainings/meetings	49.2	69.0	38.6	***
Number of responding households	763	296	467	
Hamzari				
interventions	44.9	n/a	n/a	
Receipt of social assistance				
Food rations	17.6	23.9	12.4	***
Nutrition trainings/meetings	21.0	37.7	7.3	***
Agriculture-related trainings/meetings	26.8	43.1	13.5	***
WASH trainings/meetings	39.9	58.9	24.4	***
Number of responding households	751	392	359	
Wadata				
interventions	54.9	n/a	n/a	
Receipt of social assistance				
Food rations	33.5	53.7	9.3	***
Nutrition trainings/meetings	27.1	45.4	5.1	***

	All households	Direct RFSA participants	Indirect RFSA participants	Sig.a
Agriculture-related trainings/meetings	26.2	41.2	8.2	***
WASH trainings/meetings	27.5	44.7	6.9	***
Number of responding households	736	416	320	

NOTES: Households were asked "have you or someone in your household participated in [Girma/Hamzari/Wadata]?" Households that responded 'YES' are considered direct participants of the RFSA, and households that responded 'NO' are considered indirect RFSA participants because although no household member participated directly in any of the RFSA interventions, the household falls in the RFSA intervention area.

[a] Significance tests were performed to determine whether an association exists between the outcome indicator (type of social assistance received) and the disaggregate variable (direct vs indirect participation in RFSA interventions). Associations found to be statistically significant are indicated by level: * p<0.05, ** p<0.01, *** p<0.001; ns=not significant.

Table 18: A6.4. Percent of households consuming FCS food groups and frequency of consumption in days [Baseline Study, Niger 2020]

	Combined RFSA areas				Girma				Hamzari				Wadata			
	Total	Poor FCS	Borderline FCS	Acceptable FCS	Total	Poor FCS	Borderline FCS	Acceptable FCS	Total	Poor FCS	Borderline FCS	Acceptable FCS	Total	Poor FCS	Borderline FCS	Acceptable
Percentage of HHs by FCS group	100.0	5.7	16.1	78.3	100.0	5.8	18.5	75.6	100.0	8.0	15.5	76.5	100.0	3.8	10.4	85.9
Staples[1]																
Percent of HHs consuming food item	99.9	98.5	100.0	100.0	99.9	98.8	100.0	100.0	99.9	98.8	100.0	100.0	99.9	96.9	100.0	100.0
Sorghum, millet, rice, etc....	99.6	95.9	100.0	99.8	99.4	94.5	100.0	99.7	99.9	98.8	100.0	100.0	99.7	96.9	100.0	99.8
Potatoes, yam, cassava, sweet potatoe, miritchi, garin rogo, other roots or tubers	50.9	36.1	38.0	54.7	55.9	49.4	42.0	59.8	42.5	16.0	29.2	48.0	44.7	15.2	29.9	47.7
Frequency of consumption in days (mean)	6.51	4.73	5.97	6.75	6.35	4.08	5.69	6.68	6.89	6.31	6.87	6.95	6.64	4.85	6.23	6.77
Sorghum, millet, rice, etc....	6.27	4.33	5.63	6.55	6.04	3.44	5.22	6.44	6.84	6.31	6.87	6.89	6.46	4.78	6.10	6.58
Potatoes, yam, cassava, sweet potatoe, miritchi, garin rogo, other roots or tubers	1.27	0.59	0.89	1.39	1.33	0.75	0.99	1.45	1.26	0.43	0.79	1.44	1.13	0.23	0.59	1.24
Pulses																
Percent of HHs consuming food item	95.7	65.3	93.7	98.3	97.5	78.1	96.2	99.3	94.0	55.1	95.8	97.7	92.6	32.2	80.3	96.7
Frequency of consumption in days (mean)	5.14	1.06	3.48	5.78	5.13	1.20	3.62	5.81	4.80	0.86	3.22	5.53	5.40	0.84	3.12	5.88
Vegetables																
Percent of HHs consuming food item	34.6	14.5	19.1	39.2	27.4	13.7	13.0	31.9	31.8	16.2	27.1	34.4	54.0	15.2	37.5	57.7
Frequency of consumption in days (mean)	1.03	0.23	0.45	1.21	0.64	0.14	0.28	0.77	0.98	0.22	0.55	1.15	2.01	0.57	1.06	2.19
Fruit																
Percent of HHs consuming food item	17.8	0.4	7.5	21.2	18.7	0.7	8.3	22.7	12.8	0.0	4.5	15.8	19.0	0.0	7.3	21.2
Frequency of consumption in days (mean)	0.39	0.00	0.14	0.47	0.42	0.01	0.17	0.52	0.30	0.00	0.05	0.39	0.38	0.00	0.09	0.44
Meat and Fish[2]																
Percent of HHs consuming food item	39.0	0.5	16.6	48.4	40.7	0.8	17.0	51.2	33.1	0.0	14.7	43.7	38.6	0.0	17.0	44.5
Beef, pork, lamb, goat, rabbit, chicken, organ meats, etc...	36.8	3.8	7.7	45.1	34.0	5.0	5.8	43.2	41.8	0.0	13.1	52.0	40.0	4.9	10.1	45.1
Eggs	16.5	0.0	4.1	20.3	17.3	0.0	5.0	21.6	13.0	0.0	1.8	16.6	17.2	0.0	2.9	19.7
Fresh or dried fish or shellfish	28.5	3.7	11.4	33.9	33.5	6.1	14.3	40.3	17.4	0.0	3.5	22.0	24.2	0.0	6.6	27.4
Frequency of consumption in days (mean)	1.59	0.15	0.30	1.96	1.53	0.21	0.33	1.93	1.55	0.00	0.22	1.98	1.76	0.10	0.25	2.02
Beef, pork, lamb, goat, rabbit, chicken, organ meats, etc...	0.78	0.07	0.11	0.97	0.67	0.09	0.09	0.86	1.00	0.00	0.17	1.27	0.89	0.10	0.14	1.01
Eggs	0.35	0.00	0.05	0.44	0.34	0.00	0.05	0.43	0.31	0.00	0.02	0.40	0.42	0.00	0.04	0.49
Fresh or dried fish or shellfish	0.63	0.07	0.14	0.77	0.67	0.12	0.19	0.83	0.45	0.00	0.04	0.58	0.65	0.00	0.07	0.75
Milk and Dairy																
Percent of HHs consuming food item	71.3	23.6	40.1	81.1	72.9	39.0	46.0	82.1	62.6	0.0	20.7	77.6	73.2	0.0	34.2	81.1
Frequency of consumption in days (mean)	2.69	0.24	0.66	3.29	2.42	0.40	0.75	2.98	3.12	0.00	0.37	4.01	3.05	0.00	0.59	3.48
Sugar																
Percent of HHs consuming food item	76.0	36.8	51.7	83.9	71.0	35.2	45.9	80.0	75.3	48.2	62.8	80.7	88.6	26.1	65.2	94.2
Frequency of consumption in days (mean)	3.46	0.97	1.79	3.98	2.66	0.51	1.29	3.15	4.10	1.74	3.05	4.55	4.97	1.57	2.67	5.40
Oil																
Percent of HHs consuming food item	81.1	49.1	66.5	86.5	85.5	63.7	74.1	90.0	58.9	18.7	39.1	67.1	85.9	39.1	61.7	90.9
Frequency of consumption in days (mean)	4.08	1.13	2.33	4.65	4.04	1.24	2.50	4.63	2.64	0.46	1.07	3.18	5.18	1.72	2.95	5.60
Condiments[3]																
Percent of HHs consuming food item	62.9	43.8	50.1	66.9	54.6	36.0	46.3	58.1	66.2	55.4	49.8	70.7	80.7	56.2	67.2	83.4
Frequency of consumption in days (mean)	3.35	1.34	2.34	3.71	2.49	0.59	1.85	2.80	3.90	2.20	2.73	4.32	5.06	2.91	4.09	5.28
Number of responding households	2,239	115	328	1,796	766	40	140	586	752	53	118	581	721	22	70	629

NOTES: FCS is a composite score based on dietary diversity, food frequency and relative nutritional value of the different food groups. Values are then weighted and summed to obtain the FCS. Households are categorized into consumption groups based on pre-established thresholds: Poor (0 - 21); borderline (21.5 - 35); and acceptable (>35). For more details refer to Supplement to Part 1 - FFP Baseline/Endline Questionnaire and Indicator Tabulations for Development Food Security Activities.

[1] Staples include cereals and roots and tubers.

[2] Meat and fish include meat, fish, and eggs.

[3] Condiments are not included in the calculation of FCS.

Table 19: A6.5a. Percentage of sorghum farmers by age, in total and by farmers' sex [Baseline Study, Niger 2020]

	Combined RFSA areas			Girma			Hamzari			Wadata		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
Age[1]												
15-19	3.5	0.8	8.8	3.3	0.2	8.7	3.3	1.3	7.5	4.5	1.8	10.2
20-24	7.5	4.8	12.8	7.5	5.1	11.7	4.7	3.3	7.8	10.2	5.2	20.3
25-29	10.4	8.7	13.5	10.8	9.3	13.5	8.6	6.3	13.5	10.5	8.9	13.6
30-34	12.8	13.3	12.0	14.5	15.4	12.9	10.4	9.4	12.6	9.6	10.2	8.4
35-39	13.2	14.4	11.0	12.2	12.6	11.4	16.5	17.6	14.2	13.7	16.9	7.0
40-44	13.2	14.5	10.8	13.4	15.4	10.0	12.6	11.5	15.0	13.0	14.3	10.4
45-49	7.2	8.4	5.0	6.2	7.1	4.6	10.2	11.9	6.5	7.9	9.3	5.0
50-54	10.1	9.5	11.3	11.0	9.6	13.4	9.4	10.1	7.8	8.0	8.6	6.9
55-59	5.0	5.1	4.7	4.5	4.2	4.9	7.5	8.7	5.0	4.3	4.5	4.0
60+	17.0	20.7	10.1	16.6	21.0	8.9	16.8	19.9	10.1	18.3	20.3	14.1
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of responding sorghum farmers	2,203	1,468	735	785	524	261	822	546	276	596	398	198

NOTES:

[1]Differences in the age distribution by sex are statistically significant at the p<0.001 level.

Table 20: A6.5b. Percentage of millet farmers by age, in total and by farmers' sex [Baseline Study, Niger 2020]

	Combined RFSA areas			Girma			Hamzari			Wadata		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
Age[1]												
15-19	4.4	1.1	9.5	4.9	0.9	10.6	2.8	1.1	5.8	4.4	1.8	9.2
20-24	8.4	5.2	13.5	9.2	5.8	14.1	4.6	3.3	7.0	9.5	5.2	17.7
25-29	11.5	9.5	14.6	11.6	10.3	13.4	10.8	7.4	17.1	11.9	9.2	17.0
30-34	12.9	13.6	11.7	14.5	16.0	12.2	11.2	9.4	14.3	9.2	10.4	6.9
35-39	12.9	14.3	10.7	11.3	12.0	10.2	16.9	18.7	13.8	14.3	17.0	9.2
40-44	12.9	14.6	10.4	12.7	15.3	9.0	13.4	11.7	16.4	13.3	15.1	10.0
45-49	7.2	8.3	5.4	6.3	7.1	5.1	9.5	11.1	6.6	7.8	9.1	5.3
50-54	10.1	9.3	11.4	11.1	9.3	13.6	9.0	10.2	6.8	8.0	8.3	7.4
55-59	4.4	4.8	3.9	3.9	3.9	4.0	6.4	7.7	4.0	4.3	4.8	3.3
60+	15.3	19.3	8.9	14.6	19.3	7.8	15.4	19.5	8.2	17.2	19.0	13.9
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of responding millet farmers	2,663	1,676	987	968	592	376	1,018	648	370	677	436	241

NOTES:

[1]Differences in the age distribution by sex are statistically significant at the p<0.001 level.

Table 21: A6.5c. Percentage of cowpea farmers by age, in total and by farmers' sex [Baseline Study, Niger 2020]

	Combined RFSA areas			Girma			Hamzari			Wadata		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
Age[1]												
15-19	5.1	1.7	10.5	5.6	1.8	11.1	2.7	0.8	6.6	5.4	2.0	11.2
20-24	9.1	5.3	15.1	9.7	5.7	15.5	4.7	3.8	6.6	10.6	5.2	19.7
25-29	11.1	9.1	14.2	11.2	10.1	12.7	10.0	6.6	16.9	11.7	8.2	17.5
30-34	12.9	14.1	10.9	14.3	16.2	11.6	11.0	9.9	13.3	9.7	11.5	6.9
35-39	12.8	14.3	10.4	11.5	12.1	10.5	17.0	18.6	13.7	13.5	17.1	7.6
40-44	12.7	14.4	10.1	12.4	15.1	8.4	13.6	10.9	19.2	13.0	15.0	9.5
45-49	7.1	8.2	5.3	6.2	6.9	5.1	9.7	11.4	6.2	7.7	9.1	5.3
50-54	10.0	9.1	11.2	10.9	9.0	13.5	9.2	10.7	6.1	7.7	8.1	6.9
55-59	4.5	4.8	4.0	3.9	3.8	4.0	7.1	8.2	4.9	4.3	4.8	3.4
60+	14.9	19.0	8.2	14.4	19.1	7.5	15.0	19.1	6.5	16.3	18.9	12.0
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of responding cowpea farmers	2,582	1,624	958	961	590	371	909	596	313	712	438	274

NOTES:

[1]Differences in the age distribution by sex are statistically significant at the p<0.001 level.

Table 22: A6.5d. Percentage of peanut farmers by age, in total and by farmers' sex [Baseline Study, Niger 2020]

	Combined RFSA areas			Girma			Hamzari			Wadata		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
Age[1]												
15-19	3.3	1.5	7.2	4.0	1.6	7.9	2.2	1.3	4.8	0.8	0.9	^
20-24	6.7	3.5	13.2	8.3	4.3	15.0	3.2	2.0	6.5	1.6	1.8	^
25-29	9.1	9.1	9.1	10.0	10.5	9.0	7.1	6.2	9.5	7.4	7.1	^
30-34	13.1	12.5	14.4	14.5	14.8	13.9	10.0	7.3	17.8	9.5	10.3	^
35-39	12.7	13.9	10.4	11.6	12.7	9.7	16.5	17.2	14.4	12.2	13.3	^
40-44	14.3	14.3	14.3	14.4	15.3	12.9	13.7	11.2	20.9	15.0	15.1	^
45-49	8.0	9.7	4.4	6.4	7.7	4.0	11.2	13.2	5.5	13.7	13.8	^
50-54	10.4	9.7	11.7	10.3	8.9	12.7	9.8	11.0	6.5	12.8	12.6	^
55-59	4.9	4.8	5.3	4.2	3.5	5.4	8.1	9.3	4.6	2.3	1.9	^
60+	17.4	21.0	10.0	16.4	20.6	9.4	18.2	21.2	9.5	24.6	23.2	^
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of responding peanut farmers	1,132	813	319	444	290	154	571	417	154	117	106	11

NOTES:

^ Results not statistically reliable, n<30.

[1]Differences in the age distribution by sex are statistically significant for the combined RFSA areas (p<0.001), Girma (p<0.05), and Hamzari (p<0.01). Differences in the agedistribution between female and male peanut farmers are statistically nonsignificant for Wadata.

Table 23: A6.5e. Percentage of goat farmers by age, in total and by farmers' sex [Baseline Study, Niger 2020]

	Combined RFSA areas			Girma			Hamzari			Wadata		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
Age[1]												
15-19	4.3	2.8	5.1	4.2	3.0	4.9	7.2	5.4	7.7	0.9	0.9	1.0
20-24	9.7	4.5	12.6	10.3	5.4	13.1	10.3	3.7	12.1	5.7	2.2	9.9
25-29	14.7	8.7	18.2	14.5	9.0	17.8	17.3	8.8	19.6	12.0	7.6	17.4
30-34	16.8	16.2	17.2	18.8	19.3	18.4	15.9	10.8	17.3	8.6	8.5	8.7
35-39	10.7	13.6	9.0	9.6	13.0	7.7	13.2	15.0	12.7	12.5	14.9	9.7
40-44	13.0	15.8	11.3	12.8	15.9	11.0	11.1	14.6	10.2	16.4	16.4	16.4
45-49	5.5	7.5	4.3	4.9	6.4	4.1	5.2	6.6	4.8	8.4	11.6	4.5
50-54	9.3	6.8	10.8	10.0	5.5	12.6	7.4	10.6	6.5	8.6	9.0	8.0
55-59	3.7	2.9	4.1	3.5	2.4	4.2	4.1	8.0	3.1	3.7	2.3	5.5
60+	12.4	21.1	7.5	11.4	20.1	6.3	8.1	16.4	5.9	23.2	26.7	19.0
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of responding goat farmers	1,132	813	319	444	290	154	571	417	154	117	106	11

NOTES:

[1]Differences in the age distribution by sex are statistically significant for the combined RFSA areas (p<0.001), Girma (p<0.01), and Hamzari (p<0.05). Differences in the age distribution between female and male goat farmers are statistically nonsignificant for Wadata.

Table 24: A6.5f. Percentage of sheep farmers by age, in total and by farmers' sex[Baseline Study, Niger 2020]

	Combined RFSA areas			Girma			Hamzari			Wadata		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
Age[1]												
15-19	2.9	2.0	4.0	3.0	2.2	3.9	3.5	3.6	3.5	2.1	0.4	5.9
20-24	7.2	6.1	8.6	7.9	7.5	8.3	4.7	3.9	5.2	7.7	2.6	18.9
25-29	13.1	9.9	16.9	13.7	10.4	17.9	12.6	5.4	17.0	11.4	11.5	11.1
30-34	15.6	16.0	15.1	16.7	18.8	14.0	13.9	7.9	17.5	13.3	12.2	15.5
35-39	12.6	12.0	13.4	9.8	9.2	10.4	20.5	16.3	23.1	14.1	18.2	5.5
40-44	15.0	17.0	12.6	15.5	18.3	11.8	17.8	22.8	14.8	9.5	8.5	11.7
45-49	6.6	9.1	3.6	5.9	9.8	1.0	8.5	6.1	10.0	7.0	9.0	2.6
50-54	10.7	9.1	12.7	12.9	9.6	17.3	3.5	4.7	2.7	11.1	10.6	12.3
55-59	5.0	4.1	6.1	4.8	1.6	9.0	5.8	13.5	1.1	4.8	5.9	2.5
60+	11.1	14.7	6.9	9.9	12.6	6.4	9.1	15.7	5.1	19.0	21.3	14.1
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of responding sheep farmers	523	274	249	197	113	84	215	84	131	111	77	34

NOTES:

[1]Differences in the age distribution by sex are statistically significant in Hamzari ($p<0.05$). Differences in the age distribution between female and male sheep farmers arestatistically nonsignificant for the combined RFSA areas, Girma, and Wadata.

Table 25: A6.5g. Percentage of poultry farmers by age, in total and by farmers' sex[Baseline Study, Niger 2020]

	Combined RFSA areas			Girma			Hamzari			Wadata		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
Age[1]												
15-19	4.1	3.0	5.8	3.7	2.2	5.5	7.5	7.5	7.5	3.1	2.0	5.7
20-24	11.4	7.2	17.4	14.0	9.3	19.7	6.3	5.6	7.6	6.9	3.2	15.0
25-29	8.0	4.4	13.2	8.1	4.3	12.6	3.8	2.2	6.8	10.6	6.1	20.4
30-34	15.7	17.0	13.9	16.9	20.5	12.7	15.9	11.5	24.4	11.9	12.2	11.3
35-39	12.9	15.1	9.6	10.9	13.7	7.4	16.7	13.1	23.5	16.2	19.9	8.2
40-44	13.4	15.5	10.3	12.8	15.2	9.8	14.5	16.3	11.1	14.4	15.6	11.7
45-49	6.5	9.2	2.7	5.8	9.0	2.0	7.9	10.9	2.2	7.7	8.5	6.0
50-54	9.4	7.3	12.3	11.3	6.5	17.0	5.0	6.9	1.5	6.6	9.7	0.0
55-59	5.5	5.6	5.5	5.6	5.0	6.4	9.0	12.4	2.5	2.9	2.3	4.1
60+	…	…	…	…	…	…	…	…	…	…	…	…
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of responding poultry farmers	547	343	204	223	130	93	178	112	66	146	101	45

NOTES:

[1]Differences in the age distribution by sex are statistically significant in the combined RFSA areas ($p<0.05$). Differences in the age distribution between female and male poultry farmers are statistically nonsignificant for Girma, Hamzari, and Wadata.

Table 26: A6.6a. Percentage of farmers by land access type and farmland size, in total and by farmers' sex and age [Baseline Study, Niger 2020]

	Total	Male	Female	Sig.[a]	15-29	30+	Sig.[a]
Combined RFSA areas							
Land access type							
Owned	89.8	91.9	86.5	***	85.7	91.2	**
Rented	5.4	5.6	5.3	ns	6.8	5.0	ns
Share-cropped	3.9	1.8	7.0	***	6.5	3.0	*
None	0.9	0.7	1.2	ns	1.0	0.9	ns
Farm size (Ha) (includes owned, rented, and share-cropped)							
<0.5	13.7	5.1	26.9	***	26.2	9.5	***
≥0.5-<1.0	16.2	9.0	27.2	***	25.9	12.9	***
≥1.0-<2.5	42.3	45.2	38.0	ns	35.2	44.8	*
≥2.5-<5.0	15.0	21.4	5.3	***	8.0	17.4	***
≥5.0-<7.5	7.6	11.9	1.1	***	2.2	9.5	***
≥7.5-<10.0	1.6	2.6	0.0	***	0.8	1.8	ns
≥10.0	3.5	4.9	1.5	***	1.7	4.2	*
Number of responding farmers	2,763	1,704	1,059		669	2,094	
Girma							
Land access type							
Owned	91.5	92.9	89.6	ns	87.7	92.9	*
Rented	4.3	4.6	3.9	ns	5.4	3.9	ns
Share-cropped	3.0	1.5	5.1	**	5.7	2.0	*
None	1.2	1.0	1.4	ns	1.2	1.1	ns
Farm size (Ha) (includes owned, rented, and share-cropped)							
<0.5	14.4	5.7	26.9	***	26.9	9.8	***
≥0.5-<1.0	17.3	11.4	25.8	***	27.6	13.6	**
≥1.0-<2.5	41.1	42.2	39.4	ns	31.9	44.4	*
≥2.5-<5.0	15.1	21.2	6.2	***	8.9	17.3	**
≥5.0-<7.5	7.8	12.7	0.8	***	2.1	9.9	**
≥7.5-<10.0	1.6	2.7	0.0	*	1.3	1.7	ns
≥10.0	2.7	4.1	0.9	*	1.4	3.2	ns
Number of responding farmers	987	602	385		262	725	
Hamzari							
Land access type							
Owned	80.7	86.4	70.8	***	72.6	82.6	ns
Rented	9.7	9.0	10.8	ns	10.9	9.4	ns
Share-cropped	9.1	4.3	17.6	***	15.9	7.5	**
None	0.5	0.3	0.8	*	0.5	0.4	ns
Farm size (Ha) (includes owned, rented, and share-cropped)							
<0.5	12.4	5.8	24.2	***	22.0	10.2	***
≥0.5-<1.0	15.2	6.7	30.3	***	18.8	14.4	ns
≥1.0-<2.5	51.4	57.1	41.2	**	53.7	50.8	ns
≥2.5-<5.0	13.6	20.2	1.8	***	2.6	16.1	***
≥5.0-<7.5	3.8	5.2	1.2	**	1.0	4.4	ns
≥7.5-<10.0	1.3	2.0	0.0	ns	0.0	1.6	ns
≥10.0	2.4	3.0	1.3	ns	1.8	2.5	ns
Number of responding farmers	1,022	649	373		199	823	
Wadata							
Land access type							
Owned	92.3	94.2	89.3	*	87.6	94.1	*
Rented	5.2	5.1	5.4	ns	8.4	3.9	ns
Share-cropped	2.0	0.4	4.7	***	3.3	1.5	ns

	Total	Male	Female	Sig.[a]	15-29	30+	Sig.[a]
None	0.5	0.3	0.7	ns	0.7	0.4	ns
Farm size (Ha) (includes owned, rented, and share-cropped)							
<0.5	12.9	2.6	29.1	***	26.5	7.7	***
≥0.5-<1.0	13.8	4.0	29.2	***	25.0	9.5	***
≥1.0-<2.5	38.3	43.0	30.7	ns	34.2	39.8	ns
≥2.5-<5.0	16.0	22.8	5.2	***	8.6	18.8	**
≥5.0-<7.5	10.4	15.8	2.0	***	3.1	13.3	***
≥7.5-<10.0	1.6	2.7	0.0	**	0.0	2.3	**
≥10.0	7.0	9.1	3.7	ns	2.6	8.7	*
Number of responding farmers	754	453	301		208	546	

NOTES:

[a] Significance tests were performed to determine whether an association exists between the outcome indicator (land tenure type and landsize)and the disaggregate variable (sex and age). Associations found to be statistically significant are indicated by level: * p<0.05, ** p<0.01, *** p<0.001; ns=not significant.

Table 27: A6.6b. Percentage of sorghum farmers by area cultivated, in total and by farmers' sex and age [Baseline Study, Niger 2020]

	Total	Male	Female	Sig.[a]	15-29	30+	Sig.[a]
Combined RFSA areas							
Farm size (Ha)							
<0.5	13.7	8.6	23.4	***	24.1	10.9	***
≥0.5-<1.0	16.9	11.1	28.1	***	27.4	14.1	**
≥1.0-<2.5	41.2	41.8	40.0	ns	34.5	43.0	ns
≥2.5-<5.0	15.6	20.9	5.6	***	8.6	17.5	**
≥5.0-<7.5	7.5	10.7	1.5	***	2.8	8.8	*
≥7.5-<10.0	1.4	2.0	0.1	***	0.7	1.6	ns
≥10.0	3.6	4.9	1.2	***	1.9	4.1	ns
Number of responding sorghum farmers	2,183	1,457	726		449	1,734	
Girma							
Farm size (Ha)							
<0.5	13.4	8.6	21.9	**	23.9	10.5	*
≥0.5-<1.0	17.7	12.5	27.0	**	30.4	14.2	*
≥1.0-<2.5	40.1	38.6	42.8	ns	31.3	42.6	ns
≥2.5-<5.0	16.4	22.3	6.0	***	9.3	18.4	ns
≥5.0-<7.5	8.3	12.1	1.6	***	3.2	9.7	ns
≥7.5-<10.0	1.2	1.9	0.0	*	0.6	1.4	ns
≥10.0	2.8	4.0	0.7	*	1.3	3.2	ns
Number of responding sorghum farmers	779	520	259		163	616	
Hamzari							
Farm size (Ha) (includes owned, rented, and share-cropped)							
<0.5	18.9	12.1	33.9	***	32.0	16.3	***
≥0.5-<1.0	16.6	12.4	26.0	**	20.0	16.0	ns
≥1.0-<2.5	45.3	50.5	33.8	**	38.1	46.7	ns
≥2.5-<5.0	11.7	16.0	2.1	***	3.9	13.2	*
≥5.0-<7.5	3.1	3.9	1.3	ns	1.2	3.5	ns
≥7.5-<10.0	1.4	2.0	0.0	ns	0.0	1.6	ns
≥10.0	3.0	3.1	2.8	ns	4.9	2.7	ns
Number of responding sorghum farmers	814	543	271		141	673	
Wadata							
Farm size (Ha)							
<0.5	10.5	5.8	20.2	**	20.2	7.3	***
≥0.5-<1.0	14.7	5.7	33.2	***	23.5	11.8	*
≥1.0-<2.5	41.1	43.8	35.5	ns	41.3	41.0	ns
≥2.5-<5.0	16.4	20.8	7.2	**	9.0	18.8	**
≥5.0-<7.5	8.7	12.4	1.3	***	2.8	10.7	**
≥7.5-<10.0	1.8	2.4	0.7	ns	1.2	2.0	ns
≥10.0	6.7	9.1	1.9	**	2.0	8.3	**
Number of responding sorghum farmers	590	394	196		145	445	

NOTES:

[a] Significance tests were performed to determine whether an association exists between the outcome indicator (area cultivated) and the disaggregate variable (sex and age). Associations found to be statistically significant are indicated by level: * p<0.05, ** p<0.01, *** p<0.001; ns=not significant.

Table 28: A6.6c. Percentage of millet farmers by area cultivated, in total and by farmers' sex and age [Baseline Study, Niger 2020]

	Total	Male	Female	Sig.[a]	15-29	30+	Sig.[a]
Combined RFSA areas							
Farm size (Ha)							
<0.5	14.3	7.4	25.2	***	23.5	11.4	***
≥0.5-<1.0	20.5	13.2	32.1	***	33.8	16.3	***
≥1.0-<2.5	39.7	42.5	35.3	*	30.3	42.8	**
≥2.5-<5.0	14.2	20.0	5.1	***	7.4	16.5	***
≥5.0-<7.5	6.2	9.2	1.4	***	2.6	7.3	**
≥7.5-<10.0	1.7	2.7	0.1	***	1.1	1.9	ns
≥10.0	3.3	4.9	0.8	***	1.3	3.9	**
Number of responding millet farmers	2,647	1,666	981		610	2,037	
Girma							
Farm size (Ha)							
<0.5	14.0	8.0	22.7	***	22.4	11.1	*
≥0.5-<1.0	22.6	15.0	33.5	***	37.9	17.2	***
≥1.0-<2.5	37.8	39.1	36.0	ns	26.2	41.8	**
≥2.5-<5.0	14.7	21.0	5.6	***	8.3	16.9	**
≥5.0-<7.5	6.5	10.0	1.6	**	3.0	7.8	ns
≥7.5-<10.0	1.8	3.0	0.0	**	1.4	1.9	ns
≥10.0	2.6	4.0	0.6	*	0.8	3.2	ns
Number of responding millet farmers	962	587	375		246	716	
Hamzari							
Farm size (Ha) (includes owned, rented, and share-cropped)							
<0.5	18.0	8.4	35.6	***	29.3	15.5	***
≥0.5-<1.0	19.8	15.9	27.1	***	23.2	19.1	ns
≥1.0-<2.5	45.2	51.3	33.9	***	40.7	46.1	ns
≥2.5-<5.0	10.5	15.4	1.5	***	2.8	12.2	**
≥5.0-<7.5	2.8	3.8	0.9	*	1.6	3.0	ns
≥7.5-<10.0	1.3	2.0	0.0	ns	0.0	1.6	ns
≥10.0	2.4	3.2	1.1	*	2.3	2.5	ns
Number of responding millet farmers	1,014	648	366		195	819	
Wadata							
Farm size (Ha)							
<0.5	11.7	4.8	24.5	***	23.2	7.7	***
≥0.5-<1.0	14.5	5.4	31.5	***	27.0	10.2	***
≥1.0-<2.5	41.0	44.7	34.2	ns	36.9	42.4	ns
≥2.5-<5.0	16.3	21.5	6.7	***	7.4	19.5	***
≥5.0-<7.5	8.1	12.0	0.9	***	2.0	10.2	**
≥7.5-<10.0	1.8	2.5	0.6	ns	1.0	2.1	ns
≥10.0	6.5	9.2	1.6	***	2.5	7.9	**
Number of responding millet farmers	671	431	240		169	502	

NOTES:

[a] Significance tests were performed to determine whether an association exists between the outcome indicator (area cultivated) and the disaggregate variable (sex and age). Associations found to be statistically significant are indicatedby level: * p<0.05, ** p<0.01, *** p<0.001; ns=not significant.

Table 29: A6.6d. Percentage of cowpea farmers by area cultivated, in total and by farmers' sex and age [Baseline Study, Niger 2020]

	Total	Male	Female	Sig.[a]	15-29	30+	Sig.[a]
Combined RFSA areas							
Farm size (Ha)							
<0.5	17.1	10.9	27.0	***	27.1	13.8	***
≥0.5-<1.0	19.8	12.4	31.4	***	31.6	15.8	***
≥1.0-<2.5	38.4	41.1	34.0	*	29.1	41.5	**
≥2.5-<5.0	13.6	19.2	4.6	***	7.0	15.8	***
≥5.0-<7.5	6.2	9.2	1.4	***	3.1	7.2	*
≥7.5-<10.0	1.5	2.4	0.1	***	0.5	1.8	*
≥10.0	3.5	4.8	1.6	*	1.5	4.2	*
Number of responding cowpea farmers	2,559	1,610	949		616	1,943	
Girma							
Farm size (Ha)							
<0.5	16.3	11.5	23.3	***	24.8	13.2	*
≥0.5-<1.0	21.5	13.4	33.5	***	36.3	16.2	**
≥1.0-<2.5	36.8	38.0	35.2	ns	25.5	40.9	**
≥2.5-<5.0	14.2	20.7	4.5	***	7.6	16.5	**
≥5.0-<7.5	6.7	10.1	1.6	**	3.9	7.7	ns
≥7.5-<10.0	1.4	2.4	0.0	*	0.4	1.8	ns
≥10.0	3.1	3.9	1.9	ns	1.5	3.7	ns
Number of responding cowpea farmers	951	585	366		252	699	
Hamzari							
Farm size (Ha) (includes owned, rented, and share-cropped)							
<0.5	23.0	14.7	40.0	***	34.4	20.5	***
≥0.5-<1.0	17.8	14.4	24.8	**	19.8	17.4	ns
≥1.0-<2.5	43.7	49.3	32.4	***	38.9	44.8	ns
≥2.5-<5.0	9.5	13.5	1.3	***	3.0	10.9	*
≥5.0-<7.5	2.4	3.1	1.1	ns	1.9	2.6	ns
≥7.5-<10.0	1.3	1.9	0.0	ns	0.0	1.6	ns
≥10.0	2.2	3.1	0.4	**	1.9	2.3	ns
Number of responding cowpea farmers	904	594	310		170	734	
Wadata							
Farm size (Ha)							
<0.5	15.1	5.8	30.5	***	30.6	9.2	***
≥0.5-<1.0	15.8	7.7	29.1	***	23.3	12.9	*
≥1.0-<2.5	38.9	43.7	31.1	ns	35.2	40.4	ns
≥2.5-<5.0	14.9	19.7	6.9	***	6.9	17.9	**
≥5.0-<7.5	7.5	11.7	0.8	***	1.6	9.8	***
≥7.5-<10.0	1.8	2.6	0.5	ns	0.9	2.2	ns
≥10.0	5.9	8.7	1.1	***	1.6	7.5	***
Number of responding cowpea farmers	704	431	273		194	510	

NOTES:

[a] Significance tests were performed to determine whether an association exists between the outcome indicator (area cultivated) and the disaggregate variable (sex and age). Associations found to be statistically significant are indicated by level: * p<0.05, ** p<0.01, *** p<0.001; ns=not significant.

Table 30: A6.6e. Percentage of peanut farmers by area cultivated, in total and by farmers' sex and age[Baseline Study, Niger 2020]

	Total	Male	Female	Sig.[a]	15-29	30+	Sig.[a]
Combined RFSA areas							
Farm size (Ha)							
<0.5	18.2	13.3	28.6	***	27.4	16.0	***
≥0.5-<1.0	18.4	14.4	26.9	***	25.3	16.7	ns
≥1.0-<2.5	40.8	42.0	38.3	ns	33.0	42.7	ns
≥2.5-<5.0	13.9	18.8	3.6	***	9.0	15.1	ns
≥5.0-<7.5	5.1	6.8	1.4	*	2.6	5.7	ns
≥7.5-<10.0	1.6	2.0	0.9	ns	0.8	1.8	ns
≥10.0	1.9	2.7	0.4	***	1.9	1.9	ns
Number of responding peanut farmers	1,092	792	300		164	928	
Girma							
Farm size (Ha)							
<0.5	17.8	12.5	26.9	**	27.1	15.0	***
≥0.5-<1.0	20.1	15.1	28.9	**	27.0	18.2	ns
≥1.0-<2.5	39.2	39.7	38.3	ns	30.4	41.8	ns
≥2.5-<5.0	14.2	20.5	3.2	***	10.0	15.4	ns
≥5.0-<7.5	5.5	7.7	1.6	*	2.9	6.3	ns
≥7.5-<10.0	1.7	2.1	1.1	ns	0.9	1.9	ns
≥10.0	1.5	2.3	0.0	ns	1.7	1.4	ns
Number of responding peanut farmers	431	284	147		89	342	
Hamzari							
Farm size (Ha) (includes owned, rented, and share-cropped)							
<0.5	23.8	18.7	39.0	***	36.0	22.1	ns
≥0.5-<1.0	15.2	13.9	19.1	ns	15.5	15.2	ns
≥1.0-<2.5	42.1	44.3	35.5	ns	41.3	42.2	ns
≥2.5-<5.0	12.8	15.6	4.4	*	3.5	14.1	*
≥5.0-<7.5	3.2	4.0	0.9	ns	2.1	3.3	ns
≥7.5-<10.0	1.6	2.2	0.0	ns	0.0	1.9	ns
≥10.0	1.3	1.4	1.1	ns	1.6	1.3	ns
Number of responding peanut farmers	548	406	142		65	483	
Wadata							
Farm size (Ha)							
<0.5	5.1	4.9	^	…	^	5.7	…
≥0.5-<1.0	10.8	10.8	^	…	^	9.1	…
≥1.0-<2.5	52.9	52.2	^	…	^	52.5	…
≥2.5-<5.0	14.7	15.1	^	…	^	15.4	…
≥5.0-<7.5	7.2	7.8	^	…	^	8.0	…
≥7.5-<10.0	0.9	1.0	^	…	^	1.0	…
≥10.0	8.4	8.2	^	…	^	8.4	…
Number of responding peanut farmers	113	102	11		10	103	

NOTES:

^ Results not statistically reliable, n<30.

[a] Significance tests were performed to determine whether an association exists between the outcome indicator (area cultivated) and the disaggregate variable (sex and age). Associations found to be statistically significant are indicated bylevel:
* p<0.05, ** p<0.01, *** p<0.001; ns=not significant.

Table 31: A6.7. Percentage of farmers using financial services by type of financial service, in total and by farmers' sex [Baseline Study, Niger 2020]

	Combined RFSA Area				Girma				Hamzari				Wadata			
	Total	Male	Female	Sig.[a]	Total	Male	Female	Sig.[a]	Total	Male	Female	Sig.[a]	Total	Male	Female	Sig.[a]
Any financial services	32.0	36.5	27.1	**	36.6	41.2	31.9	*	23.0	28.7	17.2	***	25.8	30.0	20.1	*
Savings	16.9	17.9	15.7	ns	20.1	21.1	18.9	ns	7.6	7.7	7.5	ns	15.7	17.8	13.0	ns
Credit	18.2	22.0	14.1	***	19.5	23.2	15.8	**	18.3	24.1	12.3	***	13.4	16.2	9.5	*
Insurance	1.0	1.2	0.8	ns	1.2	1.4	1.0	ns	0.4	0.5	0.4	ns	1.1	1.3	0.8	ns
Percentage of farmers not using any financial services	68.0	63.5	72.9	**	63.4	58.8	68.1	*	77.0	71.3	82.8	***	74.2	70.0	79.9	*
Number of responding farmers	3,358	1,773	1,585		1,201	632	569		1,329	668	661		828	473	355	

NOTES:

[a] Significance tests were performed to determine whether an association exists between the outcome indicator (use of financial services) and the disaggregate variable (sex). Associations found to be statistically significant are indicated by level: * p<0.05, ** p<0.01, *** p<0.001; ns=not significant.

Table 32: A6.8a. Percentage of sorghum farmers who applied targeted improved post-harvest handling and storage practices, in total and by farmers' sex and age [Baseline Study, Niger 2020]

		Sex			Age		
	Total	Male	Female	Sig.[a]	15-29	30+	Sig.[a]
Combined RFSA areas							
Improved post-harvest handling and storage practices/technologies							
Locally made storage structures such as sheet metal silos	13.2	14.8	10.1	ns	11.5	13.6	ns
Sealed/airtight bags	4.7	4.6	5.0	ns	2.3	5.4	*
Community storage facilities, including warehouse receipting	3.3	4.3	1.3	**	1.8	3.7	ns
Use of solar or fuel-powered dryers to reduce post-harvest moisture	0.2	0.3	0.0	ns	0.0	0.2	ns
Seed or grain treatment techniques (e.g., botanical pest control agents or phytosanitary irradiation)	0.3	0.5	0.1	ns	0.9	0.2	ns
Grain treatment with agro-chemicals	0.7	0.4	1.2	*	0.0	0.9	ns
Triple bags for cowpea grain preservation	0.5	0.4	0.7	ns	1.4	0.3	**
Other post-harvest practices that reduce pre-storage losses	2.6	2.7	2.3	ns	1.4	2.9	ns
Number of responding sorghum farmers who stored their harvest[1]	1,905	1,284	621		384	1,521	
Girma							
		Sex			Age		
	Total	Male	Female	Sig.[a]	15-29	30+	Sig.[a]
Improved post-harvest handling and storage practices/technologies							
Locally made storage structures such as sheet metal silos	2.4	3.2	0.9	*	1.3	2.7	ns
Sealed/airtight bags	3.0	2.4	4.1	ns	1.1	3.5	ns
Community storage facilities, including warehouse receipting	3.1	4.1	1.3	*	1.1	3.7	ns
Use of solar or fuel-powered dryers to reduce post-harvest moisture	0.1	0.1	0.0	ns	0.0	0.1	ns
Seed or grain treatment techniques (e.g., botanical pest control agents or phytosanitary irradiation)	0.5	0.7	0.1	ns	1.4	0.3	ns
Grain treatment with agro-chemicals	0.9	0.5	1.6	*	0.0	1.1	ns
Triple bags for cowpea grain preservation	0.0	...	...	...	...	...	
Other post-harvest practices that reduce pre-storage losses	3.0	3.4	2.3	ns	1.2	3.5	ns
Number of responding sorghum farmers who stored their harvest[1]	753	509	244		156	597	
Hamzari							
		Sex			Age		
	Total	Male	Female	Sig.[a]	15-29	30+	Sig.[a]
Improved post-harvest handling and storage practices/technologies							
Locally made storage structures such as sheet metal silos	37.1	42.9	23.4	***	28.3	38.7	ns
Sealed/airtight bags	10.0	11.1	7.3	ns	3.1	11.3	*
Community storage facilities, including warehouse receipting	3.6	4.5	1.3	ns	4.1	3.5	ns
Use of solar or fuel-powered dryers to reduce post-harvest moisture	0.3	0.4	0.0	ns	0.0	0.4	ns
Seed or grain treatment techniques (e.g., botanical pest control agents or phytosanitary irradiation)	0.0	...	...	...	...	...	
Grain treatment with agro-chemicals	0.7	0.7	0.8	ns	0.0	0.9	ns
Triple bags for cowpea grain preservation	0.4	0.6	0.0	ns	1.2	0.3	ns
Other post-harvest practices that reduce pre-storage losses	3.6	2.9	5.2	ns	5.6	3.2	ns
Number of responding sorghum farmers who stored their harvest[1]	683	463	220		117	566	
Wadata							
		Sex			Age		
	Total	Male	Female	Sig.[a]	15-29	30+	Sig.[a]
Improved post-harvest handling and storage practices/technologies							
Locally made storage structures such as sheet metal silos	32.3	30.9	34.9	ns	34.8	31.4	ns
Sealed/airtight bags	6.4	6.4	6.4	ns	5.4	6.7	ns

	Sex				Age		
	Total	Male	Female	Sig.[a]	15-29	30+	Sig.[a]
Combined RFSA areas							
Community storage facilities, including warehouse receipting	3.8	4.9	1.5	*	2.5	4.2	ns
Use of solar or fuel-powered dryers to reduce post-harvest moisture	0.4	0.6	0.0	ns	0.0	0.5	ns
Seed or grain treatment techniques (e.g., botanical pest control agents or phytosanitary irradiation)	0.0	…	…	…	…	…	
Grain treatment with agro-chemicals	1.0	…	…	…	…	…	
Triple bags for cowpea grain preservation	2.6	1.9	4.0	ns	5.7	1.6	**
Other post-harvest practices that reduce pre-storage losses	0.3	0.2	0.4	ns	0.0	0.4	ns
Number of responding sorghum farmers who stored their harvest[1]	469	312	157		111	358	

NOTES:

[a] Significance tests were performed to determine whether an association exists between the outcome indicator (agricultural practice) and the disaggregate variable (sex and age). Associations found to be statistically significant are indicated by level: * p<0.05, ** p<0.01, *** p<0.001; ns=not significant.

[1] Number of records for improved storage practices may differ from that of other improved agricultural practices because questions on the use of improved practices were generally asked as part of the main agriculture module while questions on the use of improved storage practices were asked seperately as part of the module on crop yield. The numbers of responding farmers differ across the two modules.

Table 33: A6.8b. Percentage of millet farmers who applied targeted improved post-harvest handling and storage practices, in total and by farmers' sex and age [Baseline Study, Niger 2020]

	Sex				Age		
	Total	Male	Female	Sig.[a]	15-29	30+	Sig.[a]
Combined RFSA areas							
Improved post-harvest handling and storage practices/technologies							
Locally made storage structures such as sheet metal silos	15.1	17.4	11.4	**	12.1	16.0	ns
Sealed/airtight bags	3.8	4.7	2.4	*	2.7	4.2	ns
Community storage facilities, including warehouse receipting	6.0	8.4	2.1	***	2.2	7.1	***
Use of solar or fuel-powered dryers to reduce post-harvest moisture	0.4	0.7	0.0	***	0.2	0.5	ns
Seed or grain treatment techniques (e.g., botanical pest control agents or phytosanitary irradiation)	0.2	0.3	0.1	ns	0.6	0.1	*
Grain treatment with agro-chemicals	0.7	0.7	0.8	ns	0.1	0.9	**
Triple bags for cowpea grain preservation	0.8	0.7	1.0	ns	0.6	0.9	ns
Other post-harvest practices that reduce pre-storage losses	3.1	4.0	1.7	*	0.9	3.8	**
Number of responding sorghum farmers who stored their harvest[1]	2,517	1,607	910		562	1,955	
Girma							
	Sex				Age		
	Total	Male	Female	Sig.[a]	15-29	30+	Sig.[a]
Improved post-harvest handling and storage practices/technologies							
Locally made storage structures such as sheet metal silos	3.7	5.4	1.4	**	2.1	4.3	*
Sealed/airtight bags	2.0	2.7	1.0	ns	0.7	2.4	ns
Community storage facilities, including warehouse receipting	6.6	9.6	2.0	***	1.5	8.3	***
Use of solar or fuel-powered dryers to reduce post-harvest moisture	0.5	0.9	0.0	ns	0.3	0.6	ns
Seed or grain treatment techniques (e.g., botanical pest control agents or phytosanitary irradiation)	0.2	0.3	0.1	ns	0.9	0.0	*
Grain treatment with agro-chemicals	0.9	0.8	1.0	ns	0.0	1.2	ns
Triple bags for cowpea grain preservation	0.1	0.2	0.0	ns	0.0	0.2	ns
Other post-harvest practices that reduce pre-storage losses	3.9	5.3	1.9	*	0.8	4.9	*
Number of responding sorghum farmers who stored their harvest[1]	954	587	367		239	715	
Hamzari							
	Sex				Age		
	Total	Male	Female	Sig.[a]	15-29	30+	Sig.[a]
Improved post-harvest handling and storage practices/technologies							

	Sex				Age		
	Total	Male	Female	Sig.[a]	15-29	30+	Sig.[a]
Locally made storage structures such as sheet metal silos	40.5	45.0	32.1	*	33.9	41.9	ns
Sealed/airtight bags	7.7	8.7	5.6	ns	8.0	7.6	ns
Community storage facilities, including warehouse receipting	5.5	6.9	3.0	**	4.8	5.7	ns
Use of solar or fuel-powered dryers to reduce post-harvest moisture	0.5	0.8	0.0	***	0.3	0.6	ns
Seed or grain treatment techniques (e.g., botanical pest control agents or phytosanitary irradiation)	0.3	0.2	0.5	ns	0.0	0.4	ns
Grain treatment with agro-chemicals	0.7	0.8	0.4	ns	0.6	0.7	ns
Triple bags for cowpea grain preservation	1.2	0.9	1.8	ns	0.9	1.3	ns
Other post-harvest practices that reduce pre-storage losses	3.2	3.9	2.0	ns	2.7	3.3	ns
Number of responding sorghum farmers who stored their harvest[1]	973	625	348		185	788	

Wadata							
	Sex				Age		
	Total	Male	Female	Sig.[a]	15-29	30+	Sig.[a]
Improved post-harvest handling and storage practices/technologies							
Locally made storage structures such as sheet metal silos	30.4	28.7	33.9	ns	33.5	29.4	ns
Sealed/airtight bags	6.6	7.4	5.1	ns	6.5	6.7	ns
Community storage facilities, including warehouse receipting	4.4	5.7	1.8	*	3.2	4.8	ns
Use of solar or fuel-powered dryers to reduce post-harvest moisture	0.0	...	...		...	...	
Seed or grain treatment techniques (e.g., botanical pest control agents or phytosanitary irradiation)	0.0	...	...		...	...	
Grain treatment with agro-chemicals	0.2	0.0	0.7	ns	0.0	0.3	ns
Triple bags for cowpea grain preservation	2.9	2.3	4.3	ns	2.4	3.1	ns
Other post-harvest practices that reduce pre-storage losses	0.3	0.2	0.7	ns	0.0	0.4	ns
Number of responding sorghum farmers who stored their harvest[1]	590	395	195		138	452	

NOTES:

[a] Significance tests were performed to determine whether an association exists between the outcome indicator (agricultural practice) and the disaggregate variable (sex and age). Associations found to be statistically significant are indicated by level: * p<0.05, ** p<0.01, *** p<0.001; ns=not significant.

[1] Number of records for improved storage practices may differ from that of other improved agricultural practices because questions on the use of improved practices were generally asked as part of the main agriculture module while questions on the use of improved storage practices were asked seperately as part of the module on crop yield. The numbers of responding farmers differ across the two modules.

Table 34: A6.8c. Percentage of cowpea farmers who applied targeted improved post-harvest handling and storage practices, in total and by farmers' sex and age [Baseline Study, Niger 2020]

	Sex				Age		
	Total	Male	Female	Sig.[a]	15-29	30+	Sig.[a]
Combined RFSA areas							
Improved post-harvest handling and storage practices/technologies							
Locally made storage structures such as sheet metal silos	4.7	5.3	3.6	ns	3.5	5.1	ns
Sealed/airtight bags	8.4	10.6	5.0	***	5.1	9.6	**
Community storage facilities, including warehouse receipting	1.8	2.4	1.0	*	0.7	2.2	**
Use of solar or fuel-powered dryers to reduce post-harvest moisture	0.3	0.5	0.0	**	0.2	0.4	ns
Seed or grain treatment techniques (e.g., botanical pest control agents or phytosanitary irradiation)	1.0	1.6	0.1	***	1.2	1.0	ns
Grain treatment with agro-chemicals	2.0	2.5	1.3	ns	0.1	2.7	***
Triple bags for cowpea grain preservation	3.3	4.2	1.9	*	2.3	3.7	ns
Other post-harvest practices that reduce pre-storage losses	7.2	8.7	4.9	ns	4.6	8.1	*
Number of responding sorghum farmers who stored their harvest[1]	2,367	1,489	878		580	1,787	
Girma							
Improved post-harvest handling and storage practices/technologies							
Locally made storage structures such as sheet metal silos	1.7	2.1	1.2	ns	1.2	1.9	ns
Sealed/airtight bags	4.0	5.0	2.4	ns	2.3	4.6	ns

	Sex				Age		
	Total	Male	Female	Sig.[a]	15-29	30+	Sig.[a]
Community storage facilities, including warehouse receipting	0.7	0.8	0.5	ns	0.0	0.9	ns
Use of solar or fuel-powered dryers to reduce post-harvest moisture	0.3	0.5	0.0	ns	0.3	0.3	ns
Seed or grain treatment techniques (e.g., botanical pest control agents or phytosanitary irradiation)	1.3	2.1	0.2	***	1.7	1.2	ns
Grain treatment with agro-chemicals	1.4	2.1	0.5	ns	0.0	1.9	ns
Triple bags for cowpea grain preservation	1.1	1.9	0.0	ns	0.0	1.6	ns
Other post-harvest practices that reduce pre-storage losses	9.7	12.1	6.2	*	5.7	11.2	**
Number of responding sorghum farmers who stored their harvest[1]	951	584	367		254	697	

Hamzari							
	Sex				Age		
	Total	Male	Female	Sig.[a]	15-29	30+	Sig.[a]
Improved post-harvest handling and storage practices/technologies							
Locally made storage structures such as sheet metal silos	7.1	8.6	4.1	ns	8.2	6.9	ns
Sealed/airtight bags	28.9	34.0	18.1	***	16.4	31.5	**
Community storage facilities, including warehouse receipting	5.2	6.7	1.8	ns	1.7	5.9	ns
Use of solar or fuel-powered dryers to reduce post-harvest moisture	0.5	0.7	0.1	**	0.4	0.5	ns
Seed or grain treatment techniques (e.g., botanical pest control agents or phytosanitary irradiation)	1.0	1.4	0.0	ns	0.0	1.2	ns
Grain treatment with agro-chemicals	5.1	4.9	5.6	ns	0.0	6.2	ns
Triple bags for cowpea grain preservation	11.8	11.7	12.1	ns	13.3	11.5	ns
Other post-harvest practices that reduce pre-storage losses	2.5	2.4	2.6	ns	1.5	2.7	ns
Number of responding sorghum farmers who stored their harvest[1]	779	509	270		153	626	

Wadata							
	Sex				Age		
	Total	Male	Female	Sig.[a]	15-29	30+	Sig.[a]
Improved post-harvest handling and storage practices/technologies							
Locally made storage structures such as sheet metal silos	13.1	13.3	12.6	ns	8.8	14.7	*
Sealed/airtight bags	8.7	10.0	6.5	ns	9.4	8.4	ns
Community storage facilities, including warehouse receipting	3.4	4.1	2.2	ns	2.5	3.8	ns
Use of solar or fuel-powered dryers to reduce post-harvest moisture	0.4	0.5	0.2	ns	0.0	0.5	ns
Seed or grain treatment techniques (e.g., botanical pest control agents or phytosanitary irradiation)	0.0	…	…		…	…	
Grain treatment with agro-chemicals	1.9	1.9	1.8	ns	0.6	2.3	ns
Triple bags for cowpea grain preservation	4.4	5.6	2.4	ns	4.8	4.3	ns
Other post-harvest practices that reduce pre-storage losses	2.2	2.7	1.3	ns	2.4	2.1	ns
Number of responding sorghum farmers who stored their harvest[1]	637	396	241		173	464	

NOTES:

[a] Significance tests were performed to determine whether an association exists between the outcome indicator (agricultural practice) and the disaggregate variable (sex and age). Associations found to be statistically significant are indicated by level: * p<0.05, ** p<0.01, *** p<0.001; ns=not significant.

[1] Number of records for improved storage practices may differ from that of other improved agricultural practices because questions on the use of improved practices were generally asked as part of the main agriculture module while questions on the use of improved storage practices were asked seperately as part of the module on crop yield. The numbers of responding farmers differ across the two modules.

Table 35: A6.8d. Percentage of peanut farmers who applied targeted improved post-harvest handling and storage practices, in total and by farmers' sex and age [Baseline Study, Niger 2020]

	Sex				Age		
	Total	Male	Female	Sig.[a]	15-29	30+	Sig.[a]
Combined RFSA areas							
Improved post-harvest handling and storage practices/technologies							
Locally made storage structures such as sheet metal silos	3.5	4.2	2.1	ns	1.5	4.0	ns

	Sex				Age		
	Total	Male	Female	Sig.[a]	15-29	30+	Sig.[a]
Sealed/airtight bags	17.0	17.8	15.2	ns	7.2	19.3	***
Community storage facilities, including warehouse receipting	2.1	2.8	0.8	*	1.3	2.3	ns
Use of solar or fuel-powered dryers to reduce post-harvest moisture	0.7	0.8	0.3	ns	0.5	0.7	ns
Seed or grain treatment techniques (e.g., botanical pest control agents or phytosanitary irradiation)	0.5	0.6	0.1	ns	0.0	0.6	ns
Grain treatment with agro-chemicals	0.5	0.2	1.1	ns	0.0	0.6	ns
Triple bags for cowpea grain preservation	2.4	2.2	3.0	ns	0.7	2.8	*
Other post-harvest practices that reduce pre-storage losses	5.0	5.6	3.7	ns	0.7	6.0	**
Number of responding sorghum farmers who stored their harvest[1]	998	725	273		153	845	

Girma

	Sex				Age		
	Total	Male	Female	Sig.[a]	15-29	30+	Sig.[a]
Improved post-harvest handling and storage practices/technologies							
Locally made storage structures such as sheet metal silos	2.2	3.0	0.9	*	0.0	2.9	ns
Sealed/airtight bags	12.8	13.1	12.4	ns	4.7	15.2	**
Community storage facilities, including warehouse receipting	0.9	1.4	0.0	ns	0.0	1.1	ns
Use of solar or fuel-powered dryers to reduce post-harvest moisture	0.7	0.9	0.4	ns	0.6	0.7	ns
Seed or grain treatment techniques (e.g., botanical pest control agents or phytosanitary irradiation)	0.3	0.5	0.0	ns	0.0	0.4	ns
Grain treatment with agro-chemicals	0.5	0.0	1.3	ns	0.0	0.6	ns
Triple bags for cowpea grain preservation	1.1	1.0	1.3	ns	0.0	1.5	ns
Other post-harvest practices that reduce pre-storage losses	6.1	7.2	4.1	ns	0.9	7.5	**
Number of responding sorghum farmers who stored their harvest[1]	422	276	146		87	335	

Hamzari

	Sex				Age		
	Total	Male	Female	Sig.[a]	15-29	30+	Sig.[a]
Improved post-harvest handling and storage practices/technologies							
Locally made storage structures such as sheet metal silos	8.0	8.0	8.1	ns	8.2	8.0	ns
Sealed/airtight bags	35.4	36.9	30.4	ns	19.8	37.6	*
Community storage facilities, including warehouse receipting	4.0	3.9	4.1	ns	7.6	3.5	ns
Use of solar or fuel-powered dryers to reduce post-harvest moisture	0.3	0.4	0.0	ns	0.0	0.3	ns
Seed or grain treatment techniques (e.g., botanical pest control agents or phytosanitary irradiation)	0.8	0.8	0.7	ns	0.0	0.9	ns
Grain treatment with agro-chemicals	0.7	0.9	0.0	ns	0.0	0.8	ns
Triple bags for cowpea grain preservation	7.8	6.3	12.3	ns	5.2	8.1	ns
Other post-harvest practices that reduce pre-storage losses	2.7	2.8	2.2	ns	0.0	3.0	ns
Number of responding sorghum farmers who stored their harvest[1]	479	360	119		58	421	

Wadata

	Sex				Age		
	Total	Male	Female	Sig.[a]	15-29	30+	Sig.[a]
Improved post-harvest handling and storage practices/technologies							
Locally made storage structures such as sheet metal silos	4.1	3.7	^	^	3.1		
Sealed/airtight bags	5.9	4.9	^	^	4.3		
Community storage facilities, including warehouse receipting	10.5	10.2	^	^	10.5		
Use of solar or fuel-powered dryers to reduce post-harvest moisture	1.2	1.2	^	^	1.3		
Seed or grain treatment techniques (e.g., botanical pest control agents or phytosanitary irradiation)	1.3	1.4	^	^	1.4		
Grain treatment with agro-chemicals	0.0	...	...	...	...		
Triple bags for cowpea grain preservation	0.0	...	...	...	...		

	Sex				Age		
	Total	Male	Female	Sig.[a]	15-29	30+	Sig.[a]
Other post-harvest practices that reduce pre-storage losses	0.0	...	...	...	...		
Number of responding sorghum farmers who stored their harvest[1]	97	89	8	8	89		

NOTES:

^ Results not statistically reliable, n<30.

[a] Significance tests were performed to determine whether an association exists between the outcome indicator (agricultural practice) and the disaggregate variable (sex and age). Associations found to be statistically significant are indicated by level: * p<0.05, ** p<0.01, *** p<0.001; ns=not significant.

[1] Number of records for improved storage practices may differ from that of other improved agricultural practices because questions on the use of improved practices were generally asked as part of the main agriculture module while questions on the use of improved storage practices were asked seperately as part of the module on crop yield. The numbers of responding farmers differ across the two modules.

Table 36: A6.9a. Percentage of sorghum farmers who applied targeted improved crop and NRM practices and technologies by type, in total and by farmers' sex and age [Baseline Study, Niger 2020]

	Sex				Age		
	Total	Male	Female	Sig.[a]	15-29	30+	Sig.[a]
Combined RFSA areas							
Crop genetics practices/technologies							
Use of improved seeds	7.7	8.9	5.5	ns	1.6	9.4	***
Cultural practices/technologies							
Control of sida cordifolia growth	12.2	12.6	11.5	ns	12.6	12.1	ns
Crop association	49.0	49.7	47.5	ns	42.4	50.7	ns
Crop rotation	1.6	1.9	1.0	ns	0.6	1.9	*
Sowing after useful rain	33.8	35.2	31.2	ns	29.2	35.1	ns
Improved natural resources or ecosystem management practices/technologies							
Farmer managed natural regeneration (fmnr)	37.4	39.2	34.0	ns	35.1	38.0	ns
Delimitation of animal corridors and pasture areas	35.2	38.1	29.5	**	28.6	36.9	*
Protection of ponds against silting up	6.9	8.5	3.8	**	4.2	7.6	ns
FMNR	3.7	4.3	2.6	ns	3.0	3.9	ns
Improved pest and disease management practices/technologies							
Delay of seedlings until third or fourth rains	5.9	6.3	5.2	ns	5.3	6.1	ns
Seed treatment with fungicides	5.1	6.1	3.1	*	3.5	5.5	ns
Improved soil-related fertility and conservation practices/technologies							
Zai pits	6.1	5.5	7.3	ns	3.8	6.7	*
Organic manure	64.4	67.4	58.6	**	57.8	66.2	*
Phosphatic manure	8.4	8.7	7.7	ns	7.0	8.7	ns
Compost	23.7	26.7	18.1	**	22.1	24.2	ns
Microdoses of fertilizer	2.9	3.7	1.4	**	0.7	3.5	***
Improved agriculture water management non-irrigation-based practices/technologies							
Agricultural half-moons	1.4	1.5	1.1	ns	1.5	1.3	ns
Improved climate adaptation/climate risk management practices/technologies							
Use of climate information	0.9	1.2	0.2	*	0.2	1.0	*
Other improved practices/technologies							
Performing at least three weedings	30.4	31.8	27.6	ns	23.6	32.2	*
Number of responding sorghum farmers	2,203	1,468	735		456	1,747	
Girma							
Crop genetics practices/technologies							
Use of improved seeds	8.7	9.3	7.5	ns	1.2	10.7	***
Cultural practices/technologies							
Control of sida cordifolia growth	14.2	14.1	14.2	ns	16.2	13.6	ns
Crop association	48.6	50.1	45.9	ns	39.7	51.0	ns
Crop rotation	1.4	1.6	1.2	ns	0.2	1.8	**
Sowing after useful rain	37.1	38.1	35.3	ns	30.6	38.8	ns
Improved natural resources or ecosystem management practices/technologies							
Farmer managed natural regeneration (fmnr)	42.4	43.9	39.9	ns	40.2	43.0	ns

		Sex			Age		
	Total	Male	Female	Sig.[a]	15-29	30+	Sig.[a]
Delimitation of animal corridors and pasture areas	38.8	41.5	33.8	*	31.0	40.9	*
Protection of ponds against silting up	5.8	7.1	3.6	ns	3.3	6.5	ns
FMNR	4.6	5.3	3.4	ns	3.7	4.9	ns
Improved pest and disease management practices/technologies							
Delay of seedlings until third or fourth rains	7.0	7.8	5.6	ns	5.8	7.4	ns
Seed treatment with fungicides	1.8	2.1	1.2	ns	1.5	1.8	ns
Improved soil-related fertility and conservation practices/technologies							
Zai pits	6.0	4.8	8.1	ns	3.0	6.8	ns
Organic manure	65.4	67.9	60.9	ns	60.9	66.7	ns
Phosphatic manure	8.4	8.5	8.2	ns	6.8	8.9	ns
Compost	27.6	31.5	20.8	**	26.4	28.0	ns
Microdoses of fertilizer	2.8	3.7	1.2	*	0.3	3.5	**
Improved agriculture water management non-irrigation-based practices/technologies							
Agricultural half-moons	1.5	1.9	0.8	ns	2.4	1.2	ns
Improved climate adaptation/climate risk management practices/technologies							
Use of climate information	0.8	1.1	0.2	ns	0.0	1.0	ns
Other improved practices/technologies							
Performing at least three weedings	35.8	36.4	34.8	ns	27.3	38.2	ns
Number of responding sorghum farmers	785	524	261		163	622	
				Hamzari			
Crop genetics practices/technologies							
Use of improved seeds	12.6	16.7	3.8	**	6.3	13.9	***
Cultural practices/technologies							
Control of sida cordifolia growth	18.9	20.9	14.5	**	17.9	19.1	ns
Crop association	74.1	74.5	73.4	ns	71.1	74.8	ns
Crop rotation	3.6	4.5	1.5	*	2.6	3.8	ns
Sowing after useful rain	39.4	41.4	35.0	ns	40.9	39.1	ns
Improved natural resources or ecosystem management practices/technologies							
Farmer managed natural regeneration (fmnr)	19.3	20.5	16.7	ns	22.1	18.8	ns
Delimitation of animal corridors and pasture areas	33.3	34.4	30.9	ns	37.2	32.6	ns
Protection of ponds against silting up	9.5	12.1	3.8	***	8.7	9.6	ns
FMNR	2.7	3.3	1.3	ns	2.2	2.7	ns
Improved pest and disease management practices/technologies							
Delay of seedlings until third or fourth rains	8.9	8.4	10.0	ns	12.3	8.2	ns
Seed treatment with fungicides	13.5	16.8	6.5	***	8.6	14.5	ns
Improved soil-related fertility and conservation practices/technologies							
Zai pits	12.2	12.1	12.4	ns	10.0	12.6	ns
Organic manure	66.0	68.8	60.0	ns	59.6	67.3	ns
Phosphatic manure	9.9	11.6	6.1	ns	8.9	10.1	ns
Compost	29.1	33.3	19.7	*	24.3	30.0	ns
Microdoses of fertilizer	5.4	6.6	2.8	ns	2.8	5.9	ns
Improved agriculture water management non-irrigation-based practices/technologies							
Agricultural half-moons	2.0	1.3	3.7	ns	0.0	2.4	ns
Improved climate adaptation/climate risk management practices/technologies							
Use of climate information	2.0	3.0	0.0	ns	1.7	2.1	ns
Other improved practices/technologies							
Performing at least three weedings	34.2	39.2	23.2	***	33.6	34.3	ns
Number of responding sorghum farmers	**822**	**546**	**276**		**145**	**677**	
				Wadata			
Crop genetics practices/technologies							
Use of improved seeds	0.6	0.9	0.0	ns	0.0	0.8	ns
Cultural practices/technologies							
Control of sida cordifolia growth	0.5	0.8	0.0	ns	0.0	0.7	ns

	Sex				Age		
	Total	Male	Female	Sig.[a]	15-29	30+	Sig.[a]
Crop association	28.9	27.3	32.4	ns	33.8	27.3	ns
Crop rotation	0.5	0.8	0.0	ns	0.7	0.4	ns
Sowing after useful rain	19.0	21.4	14.1	ns	18.8	19.0	ns
Improved natural resources or ecosystem management practices/technologies							
Farmer managed natural regeneration (fmnr)	36.8	41.2	27.7	*	28.8	39.5	ns
Delimitation of animal corridors and pasture areas	25.5	31.3	13.7	***	17.5	28.2	ns
Protection of ponds against silting up	7.9	9.7	4.3	ns	4.2	9.2	ns
FMNR	1.7	2.0	1.0	ns	1.4	1.8	ns
Improved pest and disease management practices/technologies							
Delay of seedlings until third or fourth rains	0.2	0.3	0.0	ns	0.0	0.2	ns
Seed treatment with fungicides	8.2	8.9	6.7	ns	5.9	9.0	ns
Improved soil-related fertility and conservation practices/technologies							
Zai pits	1.5	2.0	0.4	ns	2.3	1.2	ns
Organic manure	59.9	64.8	49.8	*	48.6	63.7	*
Phosphatic manure	7.0	6.8	7.5	ns	6.7	7.2	ns
Compost	7.2	6.9	7.7	ns	9.4	6.5	ns
Microdoses of fertilizer	1.2	1.5	0.7	ns	0.7	1.4	ns
Improved agriculture water management non-irrigation-based practices/technologies							
Agricultural half-moons	0.5	0.8	0.0	ns	0.0	0.7	ns
mproved climate adaptation/climate risk management practices/technologies							
Use of climate information	0.0	…	…		…	…	
)ther improved practices/technologies							
Performing at least three weedings	10.3	12.1	6.7	ns	8.3	11.0	ns
Number of responding sorghum farmers	596	398	198		148	448	

NOTES:
FMNR = farmer managed natural regeneration. Crop rotation is considered both an improved pest and disease management practice and a cultural practice.
[a] Significance tests were performed to determine whether an association exists between the outcome indicator (agricultural practice) and the disaggregate variable (sex andage). Associations found to be statistically significant are indicated by level: * p<0.05, ** p<0.01, *** p<0.001; ns=not significant.

Table 37: A6.9b. Percentage of millet farmers who applied targeted improved crop and NRM practices and technologies by type, in total and by farmers' sex and age [Baseline Study, Niger 2020]

	Sex				Age		
	Total	Male	Female	Sig.[a]	15-29	30+	Sig.[a]
	Combined RFSA areas						
Crop genetics practices/technologies							
Use of improved seeds	7.6	8.8	5.7	*	2.0	9.4	***
:ultural practices/technologies							
Control of sida cordifolia growth	12.7	13.4	11.7	ns	13.5	12.5	ns
Crop association	49.0	50.6	46.6	ns	42.6	51.1	*
Crop rotation	2.4	2.9	1.6	ns	2.1	2.5	ns
Sowing after useful rain	34.4	36.7	30.7	**	27.7	36.5	*
mproved natural resources or ecosystem management practices/technologies							
Farmer managed natural regeneration (fmnr)	37.2	38.8	34.7	*	36.5	37.4	ns
Delimitation of animal corridors and pasture areas	33.1	37.3	26.5	***	27.0	35.1	**
Protection of ponds against silting up	6.4	8.2	3.6	***	4.0	7.2	*
FMNR	3.4	4.3	1.9	*	2.8	3.6	ns
mproved pest and disease management practices/technologies							
Delay of seedlings until third or fourth rains	5.1	5.3	4.8	ns	5.6	4.9	ns
Seed treatment with fungicides	5.0	6.3	2.9	**	3.3	5.5	ns
mproved soil-related fertility and conservation practices/technologies							
Zai pits	5.8	5.4	6.5	ns	3.7	6.5	*
Organic manure	60.5	64.4	54.2	**	54.3	62.5	*
Phosphatic manure	9.5	10.3	8.3	ns	8.7	9.7	ns
Compost	24.9	27.0	21.6	*	24.0	25.2	ns
Microdoses of fertilizer	2.9	3.6	1.8	*	1.2	3.4	*

		Sex			Age		
	Total	Male	Female	Sig.[a]	15-29	30+	Sig.[a]
Improved agriculture water management non-irrigation-based practices/technologies							
Agricultural half-moons	1.2	1.3	1.1	ns	1.0	1.3	ns
mproved climate adaptation/climate risk management practices/technologies							
Use of climate information	0.7	1.1	0.0	ns	0.2	0.8	*
)ther improved practices/technologies							
Performing at least three weedings	30.9	31.2	30.5	ns	27.0	32.2	ns
Number of responding sorghum farmers	2,663	1,676	987		615	2,048	

Girma

		Sex			Age		
	Total	Male	Female	Sig.[a]	15-29	30+	Sig.[a]
Crop genetics practices/technologies							
Use of improved seeds	8.6	9.4	7.5	ns	1.9	10.9	**
Cultural practices/technologies							
Control of sida cordifolia growth	14.5	15.0	13.7	ns	17.0	13.6	ns
Crop association	48.2	50.8	44.5	ns	40.2	51.0	*
Crop rotation	1.4	2.2	0.3	**	1.2	1.5	ns
Sowing after useful rain	36.6	39.0	33.1	ns	28.2	39.4	*
Improved natural resources or ecosystem management practices/technologies							
Farmer managed natural regeneration (fmnr)	42.9	43.8	41.5	ns	41.7	43.3	ns
Delimitation of animal corridors and pasture areas	36.5	41.2	29.7	**	29.9	38.7	*
Protection of ponds against silting up	5.4	6.9	3.2	*	2.8	6.3	ns
FMNR	4.3	5.4	2.8	ns	3.7	4.6	ns
Improved pest and disease management practices/technologies							
Delay of seedlings until third or fourth rains	5.9	6.4	5.3	ns	7.2	5.5	ns
Seed treatment with fungicides	2.1	2.8	1.1	ns	1.6	2.3	ns
Improved soil-related fertility and conservation practices/technologies							
Zai pits	5.1	4.4	6.0	ns	2.4	6.0	*
Organic manure	61.1	64.3	56.3	ns	56.4	62.7	ns
Phosphatic manure	8.8	9.7	7.4	ns	8.0	9.0	ns
Compost	27.3	30.7	22.4	*	26.6	27.6	ns
Microdoses of fertilizer	2.3	3.1	1.2	*	0.5	2.9	**
Improved agriculture water management non-irrigation-based practices/technologies							
Agricultural half-moons	1.3	1.5	0.9	ns	1.5	1.2	ns
Improved climate adaptation/climate risk management practices/technologies							
Use of climate information	0.7	1.2	0.0	ns	0.0	0.9	ns
Other improved practices/technologies							
Performing at least three weedings	35.1	34.6	35.8	ns	30.1	36.8	ns
Number of responding sorghum farmers	968	592	376		246	722	

Hamzari

		Sex			Age		
	Total	Male	Female	Sig.[a]	15-29	30+	Sig.[a]
Crop genetics practices/technologies							
Use of improved seeds	11.7	15.6	4.5	***	5.4	13.1	***
Cultural practices/technologies							
Control of sida cordifolia growth	18.9	20.7	15.6	**	16.9	19.4	ns
Crop association	68.7	70.4	65.6	ns	63.4	69.9	ns
Crop rotation	7.1	6.7	7.8	ns	8.2	6.8	ns
Sowing after useful rain	41.6	44.0	37.4	*	38.0	42.5	ns
Improved natural resources or ecosystem management practices/technologies							
Farmer managed natural regeneration (fmnr)	18.7	20.4	15.6	ns	21.9	18.0	ns
Delimitation of animal corridors and pasture areas	30.4	31.7	28.0	ns	29.9	30.5	ns
Protection of ponds against silting up	8.4	10.8	4.0	**	9.5	8.1	ns
FMNR	2.2	3.3	0.2	***	0.9	2.5	ns

		Sex			Age		
	Total	Male	Female	Sig.[a]	15-29	30+	Sig.[a]
Improved pest and disease management practices/technologies							
Delay of seedlings until third or fourth rains	7.5	7.3	7.8	ns	6.2	7.8	ns
Seed treatment with fungicides	11.3	13.6	7.1	**	7.7	12.1	ns
Improved soil-related fertility and conservation practices/technologies							
Zai pits	12.8	12.1	14.0	ns	12.9	12.7	ns
Organic manure	61.5	65.3	54.7	*	56.6	62.6	ns
Phosphatic manure	14.5	16.2	11.4	*	14.1	14.6	ns
Compost	34.3	36.7	30.0	ns	31.7	34.9	ns
Microdoses of fertilizer	6.9	7.7	5.5	ns	6.4	7.0	ns
Improved agriculture water management non-irrigation-based practices/technologies							
Agricultural half-moons	1.9	1.6	2.7	ns	0.0	2.4	ns
Improved climate adaptation/climate risk management practices/technologies							
Use of climate information	1.3	2.1	0.0	ns	1.4	1.3	ns
Other improved practices/technologies							
Performing at least three weedings	36.2	38.6	31.9	ns	36.1	36.3	ns
Number of responding sorghum farmers	1,018	648	370		198	820	

	Wadata						
		Sex			Age		
	Total	Male	Female	Sig.[a]	15-29	30+	Sig.[a]
Crop genetics practices/technologies							
Use of improved seeds	0.3	0.4	0.0	ns	0.0	0.4	ns
Cultural practices/technologies							
Control of sida cordifolia growth	1.1	1.6	0.1	**	0.0	1.4	ns
Crop association	33.0	31.3	36.2	ns	36.6	31.8	ns
Crop rotation	1.2	1.4	0.7	ns	1.2	1.1	ns
Sowing after useful rain	20.3	23.1	15.2	ns	19.1	20.8	ns
Improved natural resources or ecosystem management practices/technologies							
Farmer managed natural regeneration (fmnr)	36.0	40.9	26.9	**	29.2	38.4	ns
Delimitation of animal corridors and pasture areas	24.5	30.7	13.0	***	15.3	27.8	*
Protection of ponds against silting up	8.0	9.8	4.6	ns	4.5	9.2	*
FMNR	1.4	2.1	0.1	***	1.2	1.5	ns
Improved pest and disease management practices/technologies							
Delay of seedlings until third or fourth rains	0.0	…	…		…	…	
Seed treatment with fungicides	8.3	9.8	5.4	ns	6.0	9.0	ns
Improved soil-related fertility and conservation practices/technologies							
Zai pits	1.7	2.1	0.9	ns	2.0	1.6	ns
Organic manure	57.5	63.8	45.6	**	45.7	61.6	**
Phosphatic manure	7.1	6.4	8.4	ns	7.3	7.0	ns
Compost	8.0	6.8	10.3	ns	10.3	7.2	ns
Microdoses of fertilizer	0.8	1.2	0.1	**	0.0	1.1	ns
Improved agriculture water management non-irrigation-based practices/technologies							
Agricultural half-moons	0.3	0.4	0.0	ns	0.0	0.4	ns
Improved climate adaptation/climate risk management practices/technologies							
Use of climate information	0.0	…	…		…	…	
Other improved practices/technologies							
Performing at least three weedings	12.2	14.1	8.6	ns	10.6	12.7	ns
Number of responding sorghum farmers	677	436	241		171	506	

NOTES: FMNR = farmer managed natural regeneration. Crop rotation is considered both an improved pest and disease management practice and a cultural practice.

[a] Significance tests were performed to determine whether an association exists between the outcome indicator (agricultural practice) and the disaggregate variable (sex andage). Associations found to be statistically significant are indicated by level: * p<0.05, ** p<0.01, *** p<0.001; ns=not significant.

Table 38: A6.9c. Percentage of cowpea farmers who applied targeted improved crop and NRM practices and technologies by type, in total and by farmers' sex and age [Baseline Study, Niger 2020]

		Sex			Age		
	Total	Male	Female	Sig.[a]	15-29	30+	Sig.[a]
Combined RFSA areas							
Crop genetics practices/technologies							
Use of improved seeds	8.4	10.0	5.9	*	1.7	10.6	***
Cultural practices/technologies							
Control of sida cordifolia growth	12.4	13.2	11.1	ns	12.5	12.3	ns
Crop association	49.0	49.8	47.6	ns	42.3	51.2	*
Crop rotation	1.9	2.0	1.6	ns	1.6	1.9	ns
Sowing after useful rain	33.4	35.6	29.9	*	28.1	35.2	*
Improved natural resources or ecosystem management practices/technologies							
Farmer managed natural regeneration (fmnr)	37.6	39.2	35.2	ns	35.5	38.3	ns
Delimitation of animal corridors and pasture areas	33.1	37.4	26.2	***	26.6	35.3	**
Protection of ponds against silting up	6.3	8.1	3.5	***	3.7	7.2	*
FMNR	3.6	4.4	2.2	*	3.1	3.7	ns
Improved pest and disease management practices/technologies							
Delay of seedlings until third or fourth rains	6.8	7.3	6.1	ns	6.1	7.0	ns
Seed treatment with fungicides	5.1	6.5	2.9	***	3.5	5.6	ns
Improved soil-related fertility and conservation practices/technologies							
Zai pits	5.2	4.9	5.7	ns	3.5	5.8	*
Organic manure	59.8	64.8	51.9	***	51.6	62.6	**
Phosphatic manure	9.6	10.2	8.6	ns	8.5	9.9	ns
Compost	23.4	25.6	19.9	*	21.9	23.9	ns
Microdoses of fertilizer	2.6	3.3	1.5	*	1.0	3.1	**
Improved agriculture water management non-irrigation-based practices/technologies							
Agricultural half-moons	1.6	1.7	1.5	ns	1.3	1.7	ns
Improved climate adaptation/climate risk management practices/technologies							
Use of climate information	0.5	0.9	0.0	ns	0.2	0.7	ns
Other improved practices/technologies							
Performing at least three weedings	29.9	30.7	28.6	ns	25.9	31.2	ns
Number of responding sorghum farmers	2,582	1,624	958		623	1,959	

		Girma					
		Sex			Age		
	Total	Male	Female	Sig.[a]	15-29	30+	Sig.[a]
Crop genetics practices/technologies							
Use of improved seeds	9.9	11.4	7.8	ns	2.0	12.8	***
Cultural practices/technologies							
Control of sida cordifolia growth	14.1	14.9	13.1	ns	15.7	13.6	ns
Crop association	48.9	50.0	47.3	ns	41.4	51.6	*
Crop rotation	1.2	1.2	1.1	ns	1.2	1.2	ns
Sowing after useful rain	35.4	37.8	32.0	*	29.9	37.4	ns
Improved natural resources or ecosystem management practices/technologies							
Farmer managed natural regeneration (fmnr)	42.5	43.6	41.0	ns	40.2	43.4	ns
Delimitation of animal corridors and pasture areas	36.5	41.2	29.6	**	30.1	38.8	*
Protection of ponds against silting up	5.2	6.7	3.1	ns	2.5	6.2	ns
FMNR	4.4	5.5	2.8	ns	3.9	4.6	ns
Improved pest and disease management practices/technologies							
Delay of seedlings until third or fourth rains	7.5	8.0	6.7	ns	6.8	7.8	ns
Seed treatment with fungicides	2.1	2.8	1.1	ns	2.1	2.1	ns
Improved soil-related fertility and conservation practices/technologies							
Zai pits	4.0	3.4	4.9	ns	2.3	4.6	ns
Organic manure	60.0	64.4	53.5	*	53.9	62.2	ns
Phosphatic manure	8.7	9.4	7.7	ns	7.8	9.0	ns
Compost	25.8	28.9	21.2	*	25.0	26.1	ns
Microdoses of fertilizer	2.2	3.0	1.0	**	0.4	2.8	**

	Sex				Age		
	Total	Male	Female	Sig.[a]	15-29	30+	Sig.[a]
Improved agriculture water management non-irrigation-based practices/technologies							
Agricultural half-moons	2.0	2.1	1.8	ns	1.6	2.1	ns
Improved climate adaptation/climate risk management practices/technologies							
Use of climate information	0.5	0.8	0.0	ns	0.0	0.7	ns
Other improved practices/technologies							
Performing at least three weedings	33.3	33.6	33.0	ns	29.2	34.8	ns
Number of responding sorghum farmers	961	590	371		254	707	

Hamzari							
	Sex				Age		
	Total	Male	Female	Sig.[a]	15-29	30+	Sig.[a]
Crop genetics practices/technologies							
Use of improved seeds	12.4	16.0	5.0	**	3.8	14.2	***
Cultural practices/technologies							
Control of sida cordifolia growth	20.1	21.8	16.6	ns	17.7	20.6	ns
Crop association	71.1	71.7	70.0	ns	64.2	72.6	*
Crop rotation	5.7	5.7	5.8	ns	6.2	5.6	ns
Sowing after useful rain	41.1	42.6	38.2	ns	35.1	42.4	ns
Improved natural resources or ecosystem management practices/technologies							
Farmer managed natural regeneration (fmnr)	18.8	19.9	16.5	ns	18.5	18.8	ns
Delimitation of animal corridors and pasture areas	30.8	31.4	29.5	ns	27.6	31.4	ns
Protection of ponds against silting up	8.9	11.1	4.5	**	10.5	8.6	ns
FMNR	2.6	3.4	1.1	ns	1.8	2.8	ns
Improved pest and disease management practices/technologies							
Delay of seedlings until third or fourth rains	11.9	12.3	11.0	ns	13.2	11.6	ns
Seed treatment with fungicides	13.5	15.6	9.2	**	11.1	14.0	ns
Improved soil-related fertility and conservation practices/technologies							
Zai pits	15.2	14.4	16.8	ns	15.7	15.1	ns
Organic manure	61.5	65.2	54.1	*	52.0	63.5	*
Phosphatic manure	15.7	16.7	13.7	ns	14.0	16.1	ns
Compost	34.5	35.9	31.6	ns	30.7	35.3	ns
Microdoses of fertilizer	5.9	6.4	4.9	ns	5.0	6.1	ns
Improved agriculture water management non-irrigation-based practices/technologies							
Agricultural half-moons	1.7	1.6	1.9	ns	1.4	1.8	ns
Improved climate adaptation/climate risk management practices/technologies							
Use of climate information	1.5	2.2	0.0	ns	1.7	1.4	ns
Other improved practices/technologies							
Performing at least three weedings	37.4	39.4	33.3	ns	34.1	38.1	ns
Number of responding sorghum farmers	909	596	313		172	737	

Wadata							
	Sex				Age		
	Total	Male	Female	Sig.[a]	15-29	30+	Sig.[a]
Crop genetics practices/technologies							
Use of improved seeds	0.4	0.6	0.0	ns	0.0	0.5	ns
Cultural practices/technologies							
Control of sida cordifolia growth	0.5	0.7	0.1	*	0.0	0.7	ns
Crop association	31.3	30.5	32.7	ns	34.2	30.2	ns
Crop rotation	0.9	1.2	0.2	ns	0.6	1.0	ns
Sowing after useful rain	20.7	22.9	17.2	ns	19.2	21.3	ns
Improved natural resources or ecosystem management practices/technologies							
Farmer managed natural regeneration (fmnr)	37.0	42.4	28.1	**	29.9	39.8	ns
Delimitation of animal corridors and pasture areas	24.2	31.4	12.1	***	15.5	27.5	*
Protection of ponds against silting up	7.8	10.1	4.0	*	4.0	9.2	*
FMNR	1.6	2.1	0.8	ns	1.1	1.8	ns

	Sex				Age		
	Total	Male	Female	Sig.[a]	15-29	30+	Sig.[a]
Improved pest and disease management practices/technologies							
Delay of seedlings until third or fourth rains	0.5	0.5	0.4	ns	0.5	0.5	ns
Seed treatment with fungicides	7.8	9.6	4.8	*	4.0	9.3	ns
Improved soil-related fertility and conservation practices/technologies							
Zai pits	1.0	1.5	0.3	ns	1.0	1.1	ns
Organic manure	57.8	65.5	45.0	**	44.2	63.1	**
Phosphatic manure	7.4	7.1	8.0	ns	8.1	7.2	ns
Compost	7.0	6.7	7.5	ns	8.4	6.5	ns
Microdoses of fertilizer	1.3	1.5	0.9	ns	1.1	1.4	ns
Improved agriculture water management non-irrigation-based practices/technologies							
Agricultural half-moons	0.3	0.6	0.0	ns	0.0	0.5	ns
Improved climate adaptation/climate risk management practices/technologies							
Use of climate information	0.0	…	…	…	…	…	
Other improved practices/technologies							
Performing at least three weedings	12.8	14.4	10.3	ns	11.7	13.2	ns
Number of responding sorghum farmers	712	438	274		197	515	

NOTES: FMNR = farmer managed natural regeneration. Crop rotation is considered both an improved pest and disease management practice and a cultural practice.

[a] Significance tests were performed to determine whether an association exists between the outcome indicator (agricultural practice) and the disaggregate variable (sex andage). Associations found to be statistically significant are indicated by level: * p<0.05, ** p<0.01, *** p<0.001; ns=not significant.

Table 39: A6.9d. Percentage of peanut farmers who applied targeted improved crop and NRM practices and technologies by type, in total and by farmers' sex and age [Baseline Study, Niger 2020]

	Sex				Age		
	Total	Male	Female	Sig.[a]	15-29	30+	Sig.[a]
	Combined RFSA areas						
Crop genetics practices/technologies							
Use of improved seeds	10.4	11.9	7.2	*	1.0	12.6	***
Cultural practices/technologies							
Control of sida cordifolia growth	13.6	14.5	11.7	ns	11.8	14.0	ns
Crop association	48.4	48.3	48.6	ns	33.0	52.0	**
Crop rotation	2.4	2.5	2.1	ns	0.9	2.7	ns
Sowing after useful rain	33.2	34.3	30.9	ns	26.9	34.7	ns
Improved natural resources or ecosystem management practices/technologies							
Farmer managed natural regeneration (fmnr)	40.0	41.3	37.2	ns	39.7	40.0	ns
Delimitation of animal corridors and pasture areas	37.8	41.2	30.7	***	26.2	40.5	***
Protection of ponds against silting up	8.2	9.7	5.1	ns	6.4	8.6	ns
FMNR	5.2	6.0	3.6	ns	4.3	5.5	ns
Improved pest and disease management practices/technologies							
Delay of seedlings until third or fourth rains	10.6	10.5	10.7	ns	11.5	10.4	ns
Seed treatment with fungicides	5.1	5.8	3.7	ns	1.9	5.9	*
Improved soil-related fertility and conservation practices/technologies							
Zai pits	6.2	5.2	8.3	ns	5.8	6.3	ns
Organic manure	67.5	68.4	65.7	ns	62.4	68.7	ns
Phosphatic manure	11.0	10.8	11.4	ns	12.8	10.6	ns
Compost	27.3	29.6	22.4	*	30.5	26.5	ns
Microdoses of fertilizer	3.2	4.4	0.7	***	1.6	3.6	ns
Improved agriculture water management non-irrigation-based practices/technologies							
Agricultural half-moons	1.7	1.2	2.8	ns	3.8	1.2	ns
Improved climate adaptation/climate risk management practices/technologies							
Use of climate information	0.4	0.6	0.0	ns	0.4	0.4	ns
Other improved practices/technologies							
Performing at least three weedings	25.7	25.5	26.3	ns	22.9	26.4	ns
Number of responding sorghum farmers	1,132	813	319		172	960	

	Sex				Age		
	Total	Male	Female	Sig.[a]	15-29	30+	Sig.[a]
Girma							
	Sex				Age		
	Total	Male	Female	Sig.[a]	15-29	30+	Sig.[a]
Crop genetics practices/technologies							
Use of improved seeds	9.9	11.4	7.2	ns	0.0	12.7	*
Cultural practices/technologies							
Control of sida cordifolia growth	12.3	13.1	10.9	ns	10.8	12.7	ns
Crop association	44.8	45.0	44.4	ns	28.0	49.6	**
Crop rotation	1.0	1.1	0.8	ns	0.0	1.2	ns
Sowing after useful rain	31.3	32.6	29.2	ns	25.6	33.0	ns
Improved natural resources or ecosystem management practices/technologies							
Farmer managed natural regeneration (fmnr)	46.0	48.2	42.1	ns	42.4	47.0	ns
Delimitation of animal corridors and pasture areas	38.6	43.9	29.7	***	24.8	42.6	***
Protection of ponds against silting up	6.3	6.9	5.3	ns	4.3	6.9	ns
FMNR	6.2	7.4	4.0	ns	4.7	6.6	ns
Improved pest and disease management practices/technologies							
Delay of seedlings until third or fourth rains	12.0	12.1	11.8	ns	12.2	11.9	ns
Seed treatment with fungicides	2.2	1.8	2.9	ns	0.0	2.8	ns
Improved soil-related fertility and conservation practices/technologies							
Zai pits	4.3	2.6	7.3	ns	4.4	4.3	ns
Organic manure	65.5	64.9	66.4	ns	60.8	66.8	ns
Phosphatic manure	9.3	8.7	10.3	ns	12.0	8.5	ns
Compost	27.2	30.7	21.2	*	30.3	26.3	ns
Microdoses of fertilizer	2.5	3.8	0.1	***	1.4	2.8	ns
Improved agriculture water management non-irrigation-based practices/technologies							
Agricultural half-moons	1.8	1.2	2.8	ns	4.7	0.9	ns
Improved climate adaptation/climate risk management practices/technologies							
Use of climate information	0.0	...	...		...	...	
Other improved practices/technologies							
Performing at least three weedings	24.4	24.3	24.5	ns	20.6	25.4	ns
Number of responding sorghum farmers	444	290	154		91	353	

Hamzari							
	Sex				Age		
	Total	Male	Female	Sig.[a]	15-29	30+	Sig.[a]
Crop genetics practices/technologies							
Use of improved seeds	14.6	16.9	7.8	**	7.2	15.6	*
Cultural practices/technologies							
Control of sida cordifolia growth	21.5	23.2	16.4	ns	20.4	21.6	ns
Crop association	69.9	69.6	70.9	ns	65.2	70.6	ns
Crop rotation	7.2	7.4	6.9	ns	6.2	7.4	ns
Sowing after useful rain	43.2	44.1	40.7	ns	37.8	44.0	ns
Improved natural resources or ecosystem management practices/technologies							
Farmer managed natural regeneration (fmnr)	18.5	19.4	16.1	ns	18.5	18.5	ns
Delimitation of animal corridors and pasture areas	32.6	33.0	31.4	ns	30.9	32.9	ns
Protection of ponds against silting up	9.3	11.4	3.3	**	10.1	9.2	ns
FMNR	3.4	3.9	2.2	ns	2.9	3.5	ns
Improved pest and disease management practices/technologies							
Delay of seedlings until third or fourth rains	9.6	10.5	7.1	ns	10.2	9.5	ns
Seed treatment with fungicides	15.6	18.2	8.0	*	11.1	16.2	ns
Improved soil-related fertility and conservation practices/technologies							
Zai pits	13.3	13.2	13.8	ns	15.5	13.0	ns
Organic manure	68.5	70.5	62.9	ns	64.5	69.1	ns
Phosphatic manure	17.2	17.7	15.7	ns	17.9	17.1	ns
Compost	35.4	37.1	30.4	ns	39.4	34.8	ns
Microdoses of fertilizer	6.1	7.0	3.5	ns	3.2	6.5	ns

	Sex				Age		
	Total	Male	Female	Sig.[a]	15-29	30+	Sig.[a]
Improved agriculture water management non-irrigation-based practices/technologies							
Agricultural half-moons	1.8	1.3	3.0	ns	0.0	2.0	ns
Improved climate adaptation/climate risk management practices/technologies							
Use of climate information	1.9	2.6	0.0	ns	2.8	1.8	ns
Other improved practices/technologies							
Performing at least three weedings	37.7	37.9	37.3	ns	41.8	37.1	ns
Number of responding sorghum farmers	571	417	154		71	500	

	Wadata						
	Sex				Age		
	Total	Male	Female	Sig.[a]	15-29	30+	Sig.[a]
Crop genetics practices/technologies							
Use of improved seeds	2.1	2.3	^	...	^	2.3	...
Cultural practices/technologies							
Control of sida cordifolia growth	2.2	2.4	^	...	^	2.4	...
Crop association	17.8	17.9	^	...	^	17.8	...
Crop rotation	1.1	0.0	^	...	^	1.2	...
Sowing after useful rain	20.2	20.9	^	...	^	21.0	...
Improved natural resources or ecosystem management practices/technologies							
Farmer managed natural regeneration (fmnr)	46.6	48.8	^	...	^	44.8	...
Delimitation of animal corridors and pasture areas	45.1	42.8	^	...	^	45.7	...
Protection of ponds against silting up	23.6	24.3	^	...	^	22.0	...
FMNR	1.7	1.9	^	...	^	1.9	...
Improved pest and disease management practices/technologies							
Delay of seedlings until third or fourth rains	0.0	...	^	...	^	...	...
Seed treatment with fungicides	2.2	2.4	^	...	^	1.4	...
Improved soil-related fertility and conservation practices/technologies							
Zai pits	2.6	2.8	^	...	^	2.8	...
Organic manure	84.5	86.5	^	...	^	83.7	...
Phosphatic manure	8.7	7.9	^	...	^	8.6	...
Compost	3.1	3.3	^	...	^	3.4	...
Microdoses of fertilizer	1.8	1.9	^	...	^	2.0	...
Improved agriculture water management non-irrigation-based practices/technologies							
Agricultural half-moons	1.3	1.4	^	...	^	1.4	...
Improved climate adaptation/climate risk management practices/technologies							
Use of climate information	2.4	2.6	^	...	^	2.6	...
Other improved practices/technologies							
Performing at least three weedings	12.8	14.4	10.3	ns	11.7	13.2	ns
Number of responding sorghum farmers	117	106	11		10	107	

NOTES: FMNR = farmer managed natural regeneration. Crop rotation is considered both an improved pest and disease management practice and a cultural practice.

[a] Significance tests were performed to determine whether an association exists between the outcome indicator (agricultural practice) and the disaggregate variable (sex andage). Associations found to be statistically significant are indicated by level: * p<0.05, ** p<0.01, *** p<0.001; ns=not significant.

Table 40: Table A6.10a. Percentage of goat farmers who applied targeted improved management practices and technologies by type, in total and by farmers' sex and age [Baseline Study, Niger 2020]

	Total	Sex			Age		
		Male	Female	Sig.[a]	15-29	30+	Sig.[a]
	Combined RFSA areas						
Improved fodder production	9.3	9.5	9.1	ns	3.4	11.6	***
Use of licking and/or multi-nutritional block	7.5	12.9	4.4	***	7.7	7.5	ns
Animal selection	10.8	12.8	9.6	*	9.9	11.1	ns
Vaccinations	36.6	40.3	34.4	ns	29.0	39.6	*
Antiparasitic treatments	35.7	39.1	33.8	ns	30.9	37.7	*
Veterinary monitoring of food quality and quantity over time	1.5	2.4	0.9	ns	1.3	1.5	ns

	Total	Sex			Age		
		Male	Female	Sig.[a]	15-29	30+	Sig.[a]
Weight monitoring	3.4	6.7	1.4	**	1.4	4.2	ns
Optimum weight-market price criteria for the sale decision	0.5	0.8	0.3	ns	0.2	0.6	ns
Use of para-veterinary services for goats and sheep	4.9	6.5	4.0	ns	7.3	3.9	*
Number of responding goat farmers	1,316	448	868		400	916	

Girma							
	Total	Sex			Age		
		Male	Female	Sig.[a]	15-29	30+	Sig.[a]
Improved fodder production	11.0	10.1	11.6	ns	3.4	14.2	**
Use of licking and/or multi-nutritional block	7.4	12.7	4.3	**	9.5	6.5	ns
Animal selection	12.2	14.9	10.7	*	10.6	12.9	ns
Vaccinations	37.5	44.7	33.3	ns	27.1	41.7	*
Antiparasitic treatments	38.2	40.2	37.0	ns	32.3	40.6	ns
Veterinary monitoring of food quality and quantity over time	1.2	2.1	0.7	ns	1.3	1.1	ns
Weight monitoring	4.0	9.3	1.0	***	0.8	5.4	*
Optimum weight-market price criteria for the sale decision	0.3	0.8	0.0	ns	0.0	0.4	ns
Use of para-veterinary services for goats and sheep	6.5	8.2	5.4	ns	9.9	5.0	*
Number of responding goat farmers	526	199	327		160	366	

Hamzari							
	Total	Sex			Age		
		Male	Female	Sig.[a]	15-29	30+	Sig.[a]
Improved fodder production	4.6	5.9	4.3	ns	3.8	5.0	ns
Use of licking and/or multi-nutritional block	3.9	7.5	2.9	ns	2.5	4.6	ns
Animal selection	7.0	7.3	6.9	ns	7.1	6.9	ns
Vaccinations	48.2	54.0	46.7	ns	43.5	50.8	ns
Antiparasitic treatments	33.8	44.5	31.0	*	30.8	35.5	ns
Veterinary monitoring of food quality and quantity over time	2.2	2.8	2.1	ns	1.9	2.4	ns
Weight monitoring	3.3	2.8	3.4	ns	3.9	2.9	ns
Optimum weight-market price criteria for the sale decision	1.5	2.5	1.2	**	0.9	1.8	ns
Use of para-veterinary services for goats and sheep	2.1	6.7	0.9	***	2.1	2.1	ns
Number of responding goat farmers	530	107	423		191	339	

Wadata							
	Total	Sex			Age		
		Male	Female	Sig.[a]	15-29	30+	Sig.[a]
Improved fodder production	6.8	9.3	3.7	ns	1.9	7.9	ns
Use of licking and/or multi-nutritional block	13.1	16.6	8.9	ns	5.9	14.7	ns
Animal selection	8.7	9.0	8.3	ns	11.5	8.1	ns
Vaccinations	17.3	19.7	14.4	ns	8.6	19.2	*
Antiparasitic treatments	26.6	33.1	18.7	*	20.5	28.0	ns
Veterinary monitoring of food quality and quantity over time	1.8	3.3	0.0	*	0.0	2.2	ns
Weight monitoring	0.3	0.5	0.0	ns	0.0	0.3	ns
Optimum weight-market price criteria for the sale decision	0.0	...	...		...	...	
Use of para-veterinary services for goats and sheep	0.8	0.7	1.0	ns	0.0	1.0	ns
Number of responding goat farmers	260	142	118		49	211	

Table 41: A6.10b. Percentage of sheep farmers who applied targeted improved management practices and technologies by type, in total and by farmers' sex and age [Baseline Study, Niger 2020]

	Total	Sex			Age		
		Male	Female	Sig.[a]	15-29	30+	Sig.[a]
Combined RFSA areas							
Improved fodder production	9.6	10.1	9.1	ns	4.7	11.2	ns
Use of licking and/or multi-nutritional block	7.6	10.4	4.3	ns	7.9	7.5	ns
Animal selection	13.6	14.3	12.7	ns	9.2	14.9	ns
Vaccinations	38.0	39.9	35.7	ns	28.0	41.0	ns
Antiparasitic treatments	39.2	43.4	34.1	ns	28.6	42.4	ns
Veterinary monitoring of food quality and quantity over time	2.4	2.5	2.4	ns	3.5	2.1	ns
Weight monitoring	3.0	4.9	0.7	**	1.0	3.6	ns
Optimum weight-market price criteria for the sale decision	0.1	0.0	0.1	ns	0.0	0.1	ns
Use of para-veterinary services for goats and sheep	8.3	9.9	6.3	ns	11.7	7.2	*
Number of responding sheep farmers	523	274	249		122	401	

	Total	Sex			Age		
		Male	Female	Sig.[a]	15-29	30+	Sig.[a]
Girma							
Improved fodder production	11.5	12.1	10.8	ns	5.6	13.4	ns
Use of licking and/or multi-nutritional block	7.4	10.2	3.7	ns	9.2	6.8	ns
Animal selection	16.7	17.6	15.6	ns	9.6	19.0	ns
Vaccinations	37.8	40.8	34.1	ns	27.6	41.2	ns
Antiparasitic treatments	43.2	44.6	41.3	ns	31.6	46.9	ns
Veterinary monitoring of food quality and quantity over time	2.3	2.2	2.4	ns	3.2	2.0	ns
Weight monitoring	3.5	6.3	0.0	ns	0.6	4.5	ns
Optimum weight-market price criteria for the sale decision	0.0	…	…		…	…	
Use of para-veterinary services for goats and sheep	11.7	13.9	9.0	ns	15.5	10.5	ns
Number of responding sheep farmers	197	113	84		50	147	
Hamzari							
	Total	Sex			Age		
		Male	Female	Sig.[a]	15-29	30+	Sig.[a]
Improved fodder production	5.4	4.3	6.1	ns	1.8	6.4	ns
Use of licking and/or multi-nutritional block	4.8	5.2	4.5	ns	9.3	3.6	ns
Animal selection	5.9	4.8	6.6	ns	1.7	7.1	ns
Vaccinations	51.9	60.0	47.0	ns	38.4	55.5	**
Antiparasitic treatments	33.8	49.8	24.0	***	18.2	37.9	*
Veterinary monitoring of food quality and quantity over time	4.1	5.3	3.3	ns	7.4	3.2	ns
Weight monitoring	3.6	5.2	2.6	ns	3.3	3.6	ns
Optimum weight-market price criteria for the sale decision	0.3	0.0	0.4	ns	0.3	0.3	ns
Use of para-veterinary services for goats and sheep	2.9	3.4	2.6	ns	6.5	1.9	ns
Number of responding sheep farmers	215	84	131		49	166	
Wadata							
	Total	Sex			Age		
		Male	Female	Sig.[a]	15-29	30+	Sig.[a]
Improved fodder production	7.4	7.5	7.3	ns	3.9	8.3	ns
Use of licking and/or multi-nutritional block	12.5	15.0	7.3	ns	0.0	15.9	*
Animal selection	10.5	10.1	11.5	ns	17.0	8.8	ns
Vaccinations	20.1	22.0	16.0	ns	16.4	21.1	ns
Antiparasitic treatments	29.6	34.7	18.6	ns	27.7	30.1	ns
Veterinary monitoring of food quality and quantity over time	0.8	1.2	0.0	ns	0.0	1.1	ns
Weight monitoring	0.0	…	…		…	…	
Optimum weight-market price criteria for the sale decision	0.0	…	…		…	…	
Use of para-veterinary services for goats and sheep	0.8	1.2	0.0	ns	0.0	1.1	ns
Number of responding sheep farmers	111	77	34		23	88	

Table 42: A6.10c. Percentage of poultry farmers who applied targeted improved management practices and technologies by type, in total and by farmers' sex and age [Baseline Study, Niger 2020]

	Total	Sex			Age		
		Male	Female	Sig.[a]	15-29	30+	Sig.[a]
Combined RFSA areas							
Vaccinations	17.4	20.7	12.5	ns	14.3	18.3	ns
Use of improved poultry variety/breed	10.3	13.6	5.5	**	8.1	11.0	ns
Use of veterinary products and services (antibiotics, vitamins, etc.)	9.8	11.0	8.0	ns	9.0	10.0	ns
Use of improved feed	9.7	14.0	3.4	***	8.5	10.0	ns
Use of improved shelters	9.6	10.9	7.8	ns	5.5	10.9	ns
Number of responding poultry farmers	547	343	204		125	4	
Girma							
Vaccinations	18.8	23.5	13.2	ns	17.4	19.3	ns
Use of improved poultry variety/breed	11.2	16.7	4.6	**	6.3	12.9	ns
Use of veterinary products and services (antibiotics, vitamins, etc.)	9.8	10.3	9.1	ns	10.4	9.5	ns
Use of improved feed	10.7	16.3	4.0	**	10.3	10.9	ns
Use of improved shelters	10.7	13.2	7.6	ns	7.8	11.7	ns
Number of responding poultry farmers	**223**	130	93		61	162	

	Total	Sex			Age		
		Male	Female	Sig.[a]	15-29	30+	Sig.[a]
Hamzari							
Vaccinations	30.7	36.4	20.0	*	18.5	33.3	ns
Use of improved poultry variety/breed	8.8	11.3	4.1	ns	10.5	8.4	ns
Use of veterinary products and services (antibiotics, vitamins, etc.)	15.5	17.2	12.3	ns	9.6	16.8	ns
Use of improved feed	8.6	10.8	4.6	ns	11.3	8.0	ns
Use of improved shelters	11.1	10.6	12.0	ns	0.0	13.4	ns
Number of responding poultry farmers	178	112	66		35	143	
Wadata							
	Total	Sex			Age		
		Male	Female	Sig.[a]	15-29	30+	Sig.[a]
Vaccinations	3.5	3.4	3.7	ns	^	4.4	ns
Use of improved poultry variety/breed	8.6	7.6	10.7	ns	^	7.3	ns
Use of veterinary products and services (antibiotics, vitamins, etc.)	5.9	8.6	0.0	ns	^	6.5	ns
Use of improved feed	7.2	10.5	0.0	ns	^	9.1	ns
Use of improved shelters	5.5	5.4	5.7	ns	^	7.0	ns
Number of responding poultry farmers	146	101	45		29	117	

Table 43: A6.11. Household sanitation, water and knowledge of critical moments for handwashing [Baseline Study, Niger 2020]

	Combined RFSA areas	Girma	Hamzari	Wadata
Improved, not shared sanitation facility	5.9	4.5	13.0	4.4
Flush to piped sewer system	0.0	0.0	0.1	0.0
Flush to septic tank	0.2	0.3	0.2	0.0
Flush to pit latrine	0.2	0.1	0.4	0.1
Ventilated improved pit latrine	0.2	0.0	0.8	0.2
Pit latrine with slab	4.8	3.2	11.5	4.0
Composting toilet	0.5	0.9	0.0	0.0
Improved, shared sanitation facility	4.4	3.4	8.9	3.6
Flush to piped sewer system	...	...	...	...
Flush to septic tank	0.1	0.0	0.0	0.3
Flush to pit latrine	0.0	0.0	0.0	0.2
Ventilated improved pit latrine	0.3	0.3	0.3	0.4
Pit latrine with slab	3.8	2.8	8.6	2.7
Composting toilet	0.2	0.3	0.0	0.0
Non-improved sanitation facility	89.7	92.0	77.7	92.1
Flush to somewhere else	0.1	0.0	0.4	0.3
Flush to don't know where	0.0	0.0	0.0	0.1
Latrine Without Slab/Open Pit	1.6	1.0	2.9	2.3
Bucket toilet	0.5	0.0	0.7	1.6
Hanging toilet/latrine	0.5	0.7	0.6	0.1
No Facility/Bush/Field	86.9	90.3	73.4	87.7
Improved source of drinking water	73.7	79.2	83.2	54.1
Piped water into dwelling	0.1	0.0	0.5	0.1
Piped water into yard/plot	0.2	0.2	0.4	0.1
Piped to neighbor	0.1	0.0	0.1	0.2
Public tap/Standpipe	31.3	28.7	34.3	35.3
Tube well or borehole	31.2	45.7	7.9	12.6
Protected well	10.1	4.1	38.6	5.1
Protected spring	0.1	0.0	0.0	0.4
Rainwater	0.6	0.5	1.4	0.4
Tanker truck	...	...	...	...
Cart with small tank	...	...	...	...
Bottled water	...	...	...	...
Non-improved source of drinking water	26.3	20.8	16.8	45.9
Unprotected well	23.9	19.2	16.7	39.9
Unprotected spring	1.3	1.6	0.1	1.3
Surface water (river/dam/ lake/ponds/stream/canal/irrigation channel)	1.1	0.0	0.0	4.6
Distance/time from source[1]				

	Combined RFSA areas	Girma	Hamzari	Wadata
On premises	2.3	2.2	4.2	1.3
≤ 30-minute roundtrip	71.7	78.6	59.2	63.8
31+ minute roundtrip	26.0	19.2	36.7	34.9
Water production				
Produces at least 20 liters per person per day	57.5	59.6	60.5	50.4
Water availability				
Water available from the source all year round	NA	NA	NA	NA
Water unavailable for a day or longer in the past two weeks	30.1	33.5	16.4	31.5
Meets all four criteria for basic water source available from the survey[2]	21.2	22.7	30.8	11.1
Water treatment				
Does something to make water safer to drink	24.8	28.0	20.9	20.0
Handwashing station with water and soap/ash[3]	12.1	8.9	40.6	18.2
Water observed at handwashing station	61.8	63.6	66.4	56.2
Cleaning agent				
Soap or ash observed at handwashing station	13.7	10.2	42.7	20.7
Mud or sand observed at handwashing station	15.5	14.5	1.7	19.7
Other cleaning agent	3.9	4.2	0.8	3.3
No cleaning agent observed at handwashing station	67.6	71.5	54.8	57.8
Knowledge of critical moments for handwashing				
Food handling				
Before eating	94.8	93.5	97.1	96.2
Before cooking/food prep	20.5	19.6	29.5	16.6
Before breastfeeding/feeding a child	7.0	7.2	12.0	3.2
Risk of fecal contact				
After defecation	39.0	42.2	41.1	29.9
After cleaning the toilet	8.1	7.2	16.6	4.3
After diaper change/child defecation	4.0	2.6	10.6	2.7
When hands are dirty	59.5	58.3	70.9	54.6
Number of responding households	2,250	765	751	734

NA = Not available

[1] Number of responding households is 2,242.

[2] Refers to households that meet the following criteria: uses an improved water source; water source is on the premises or obtainable in 30 minutes or less roundtrip; water source was not unavailable for a day or longer in the past two weeks; and water source produces at least 20 liters per day per person. Numberof households with complete information for all four criteria is 2,239.

[3] This indicator is based on observation. Of the 2,250 households interviewed, enumerators were able to observe the handwashing stations of 1,297 households (Girma, 674; Hamzari, 90; Wadata, 533).

Table 44: A6.12. Percentage of women 15-49 years of age by food groups consumed [Baseline Study, Niger 2020]

	Combined RFSA areas	Girma	Hamzari	Wadata
Grains, roots and tubers	98.5	98.0	99.7	98.4
Pulses	87.3	87.6	87.8	86.1
Dark green leafy vegetables	87.3	87.9	88.8	84.3
Dairy products	53.1	54.7	49.1	53.4
Other vegetables	37.2	26.8	57.4	40.6
Meat, poultry, fish	34.6	36.7	36.3	27.7
Other vitamin-A rich fruits and vegetables	24.0	31.6	11.2	19.3
Other fruits	8.2	8.8	8.3	6.4
Eggs	7.3	5.9	8.6	9.1
Nuts and seeds	2.7	3.6	0.4	3.1
Number of responding women 15-49 years	2,760	783	1,230	747

NOTE: A woman of reproductive age is considered to consume a minimum dietary diversity if she consumed at least five of 10specific food groups during the previous day and night.

Table 45: A6.13. Use of antenatal care services (ANC) [Baseline Study, Niger 2020]

	Combined RFSA areas	Girma	Hamzari	Wadata
Percent of births receiving at least four ANC visits during pregnancy[1]	47.8	48.4	56.9	36.3
Percent of births receiving at least one ANC visits during pregnancy[2]	91.4	90.7	94.2	90.5
Number of live births in the five years prior to the survey	1,725	565	712	448
ANC provider[3,4]				
Doctor	2.1	0.0	5.8	4.4
Nurse	30.9	29.6	31.3	34.4
Midwife	39.6	43.5	23.8	45.7
Health officer	32.8	32.7	41.5	23.1
Health extension worker	0.0	0.0	0.1	0.0
Traditional birth attendant	0.1	0.0	0.1	0.2
Other	1.9	2.0	3.6	0.0
Timing of first ANC visit				
During first 3 months of pregnancy	29.1	30.5	28.6	25.3
After 3 months	70.9	69.5	71.4	74.7
Number of live births in the five years prior to the survey that received ANC care[4]	1,602	499	701	402

NOTE: Use of antenatal care (ANC) refers to the last (most recent) live birth that occurred in the five years prior to the survey.

[1] Refers to women who attended at least four ANC visits with a skilled health professional during the most recent pregnancy that resulted in a live birth in the five years preceding the survey. Skilled health personnels include doctors, nurses, midwives, health officers and health extension workers.

[2] Refers to women who attended at least one ANC visit with a skilled health professional during the most recent pregnancy that resulted in a live birth in the five years preceding the survey.

[3] Multiple responses allowed. Total may add up to more than 100 percent.

[4] Includes all live births that received any ANC care regardless of the provider.

Table 46: A6.14. Percentage of non-pregnant women 15-49 years who are married or in a union and using a contraceptive method by type of method [Baseline Study, Niger 2020]

	Combined RFSA areas	Girma	Hamzari	Wadata
Modern methods	14.2	12.7	18.4	13.8
Female sterilization	…	…	…	…
Male sterilization	…	…	…	…
Inter-uterine device	0.0	0.0	0.2	0.0
Injectables	7.2	8.3	6.8	4.5
Implants	2.1	1.8	3.4	1.6
Pill	6.3	5.3	7.3	7.8
Condom	0.2	0.3	0.2	0.0
Female condom	…	…	…	…
Emergency contraception	…	…	…	…
Standard days method	0.2	0.3	0.1	0.0
Lactational amen. method	0.6	0.3	1.0	0.9
Other modern methods	…	…	…	…
Traditional methods	2.3	2.5	3.6	0.3
Rhythm	…	…	…	…
Withdrawal	0.0	0.0	0.2	0.0
Other traditional methods	2.2	2.5	3.4	0.3
Does not use any form of contraception	83.8	85.2	78.2	85.9
Number of responding non-pregnant women 15-49 years married or in a union	1,864	560	816	488

NOTE: Multiple responses for type of contraceptive method used was allowed. Totals may add up to more than 100 percent.

Table 47: A6.15. Percentage of children 6-23 months by food groups consumed [Baseline Study, Niger 2020]

	Combined RFSA areas	Girma	Hamzari	Wadata
Grains, roots and tubers	92.2	92.4	93.4	90.5
Breastmilk	84.4	84.8	85.6	82.0
Vitamin-A rich fruits and vegetables	73.4	72.4	76.8	72.7
Legumes and nuts	65.0	60.1	73.3	71.1
Dairy products (milk, yogurt, cheese)	50.7	52.5	43.2	52.6
Other fruits and vegetables	26.9	16.0	47.4	38.5
Flesh foods (meat, fish, poultry, and liver/organ meats)	17.7	14.6	23.5	21.0
Eggs	7.0	5.6	8.9	9.3
Number of children 6-23 months	834	294	324	216

NOTE: A child 6-23 months is considered to consume a minimum dietary diversity if s/he consumed at least five of the eight food groups during the previous day and night.

Table 48: A6.16. Percentage of women and men in a union participating in community groups, by type of group [Baseline Study, Niger 2020]

	Combined RFSAs		Girma		Hamzari		Wadata	
	Males	Females	Males	Females	Males	Females	Males	Females
Agricultural/livestock/fisheries producer's group	40.2	19.9	43.5	21.4	29.5	11.7	39.8	22.5
N	668	663	204	205	281	272	183	186
Water users' group	31.5	14.6	39.1	14.6	19.5	11.8	23.2	16.8
N	719	756	210	230	301	307	208	219
Forest users' group	15.8	10.2	17.5	11.1	13.9	7.9	12.7	9.4
N	427	467	136	144	157	175	134	148
Credit or microfinance group	18.3	26.9	17.9	23.7	20.5	31.8	18.9	37.5
N	341	428	164	190	88	117	89	121
Savings group	15.3	33.5	17.6	32	3.6	45.5	13.9	27.8
N	270	330	125	138	100	132	45	60
Mutual help or insurance group	43.3	32.5	46.9	43.5	32	21.3	40.3	10.9
N	105	90	34	28	39	28	32	34
Trade and business association	20.6	14.8	19.6	14.5	15.3	8.4	29.9	22.9
N	172	178	36	40	92	87	44	51
Civic group	54.4	29.8	56.1	36.6	50.3	18.7	54.5	24.2
N	434	460	112	114	211	208	111	138
Local government	20.9	8	20.5	7.8	24	13.8	20.4	4.3
N	954	1,068	398	433	298	332	258	303
Religious group	43.9	22	39.3	14.9	55.2	42.9	46.4	20.9
N	1,056	1,150	364	382	441	473	251	295
Mother's group	3.8	41.1	2.6	36.3	6.3	50.5	3.9	44.1
N	726	903	226	283	359	441	141	179
Youth group	34	14.7	35.4	12.8	33.3	19.6	30.9	14.4
N	793	826	233	234	376	388	184	204
Sports group	22.1	3.3	27.9	1.4	17.7	7.3	18.8	0
N	234	229	35	34	152	146	47	49
Communal grazing land users' group	26	15.3	28.2	16.6	15.4	8	28.6	17.2
N	307	310	94	90	136	130	77	90
Communal natural resources group	22.4	4.3	27.1	3.7	20	9.5	15.2	2.9
N	222	237	55	48	92	89	75	100
Disaster planning group	20.9	12.6	13.4	15.4	25.1	11.3	30.3	7.9
N	179	175	53	57	65	57	61	61
Safe spaces	23.9	7.8	10.4	5	29.2	8	32.9	11.8
N	144	165	25	32	70	75	49	58
Conflict resolution group	32.7	13.4	35.1	13.5	36.3	11.9	25.1	14.1
N	817	910	297	312	238	261	282	337
Other women's group	N/A	45.4	N/A	46.6	N/A	75.9	N/A	28.2
N		37		6		16		15

NOTE: Based on the responses of the youngest female in a union and her spouse/partner. The number of respondents (N) includes men/women who indicated that the group exists in their community. Results are unreliable for cases n<30; they are included for illustrative purposes only.

Table 49: A6.17. Component of household social capital index [Baseline Study, Niger 2020]

	Combined RFSA areas	Girma	Hamzari	Wadata
	% of HHs	% of HHs	% of HHs	% of HHs
Components of bonding social capital				
Ability to receive support from relatives living inside the community during times of need	65.0	61.0	64.7	74.8
Ability to provide support to relatives living inside the community during times of need[1]	61.7	58.2	61.0	70.5
Ability to receive support from non-relatives living inside the community during times of need	53.1	51.2	51.9	58.7
Ability to provide support to non-relatives living inside the community during times of need[1]	50.5	48.3	49.7	56.1
Components of bridging social capital				
Ability to receive support from relatives living outside of the community during times of need	61.7	59.6	62.0	66.5
Ability to provide support to relatives living outside of the community during times of need[1]	55.7	53.0	58.5	60.3
Ability to receive support from non-relatives living outside of the community during times of need	40.1	39.8	45.9	36.9
Ability to provide support to non-relatives living outside of the community during times of need[1]	37.8	36.6	44.6	36.0
Number of responding households	2,254	766	753	735

Table 50: A6.18 COVID-19 awareness and adoption of COVID-19 mitigation protocols [Baseline Study, Niger 2020]

	Combined RFSA areas			Girma			Hamzari			Wadata		
	No. of HHs	%	Sig.[a]	No. of HHs	%	Sig.[a]	No. of HHs	%	Sig.[a]	No. of HHs	%	Sig.[a]
Awareness of COVID-19												
All households	2,253	98.5		765	98.6		75299.3			736	97.6	
Male and female adults	1,931	99.2	***	650	99.1	*	70499.3			577	99.2	***
Female adult(s) only	203	92.2		76	93.9		29^			98	87.2	
Male adult(s) only	112	99.5		37	100		17^			58	98.6	
Child(ren) only (no adults)	7	^		2	^		2^			3	^	
Adoption of COVID-19 mitigation protocols[1]												
Handwashing with water and soap												
All households	1,718	71.9		561	62.1		629	92.4		528	79.7	
Male and female adults	1,511	72.3	ns	493	62.4	ns	593	92.4		425	80	ns
Female adult(s) only	125	69.1		45	61.3		21	^		59	77.5	
Male adult(s) only	79	68.8		23	^		14	^		42	79.2	
Child(ren) only (no adults)	3	^					1	^		2	^	
Wearing a face cover/mask												
All households	1,718	41.6		561	41.6		629	53		528	32.4	
Male and female adults	1,511	42.1	ns	493	41.6	ns	593	51.9		425	34.4	ns
Female adult(s) only	125	38.2		45	43.1		21	^		59	20.4	
Male adult(s) only	79	36.9		23	^		14	^		42	26.5	
Child(ren) only (no adults)	3	^					1	^		2	^	
Maintaining one meter distance from others												
All households	1,718	35.6		561	30.2		629	55.3		528	32.9	
Male and female adults	1,511	37.2	***	493	32	*	593	55.6		425	33.8	ns
Female adult(s) only	125	29.1		45	25.5		21	^		59	31.6	
Male adult(s) only	79	15.6		23	^		14	^		42	25.2	
Child(ren) only (no adults)	3	^					1	^		2	^	
Limiting contact with non-HH members												
All households	1,718	53.9		561	59.3		629	47.5		528	45.5	
Male and female adults	1,511	54.3	ns	493	59.3	ns	593	47.5		425	47.6	ns
Female adult(s) only	125	49.9		45	55.8		21	^		59	40.1	
Male adult(s) only	79	51.8		23	^		14	^		42	31.4	
Child(ren) only (no adults)	3	^					1	^		2	^	
Other practices												
All households	1,718	15.1		561	19.6		629	3.7		528	13.2	
Male and female adults	1,511	14.4	ns	493	18.3	ns	593	3.9		425	13.8	ns
Female adult(s) only	125	19.1		45	28		21	^		59	6.3	
Male adult(s) only	79	22.5		23	^		14	^		42	17.5	
Child(ren) only (no adults)	3	^					1	^		2	^	
Do nothing												
All households	2,220	25.24		754	26.57		746	16.82		720	27.85	
Male and female adults	1,915	23.09	***	644	24.01	*	699	15.96		572	26.49	ns
Female adult(s) only	187	36.67		71	38.74		28	^		88	34.19	
Male adult(s) only	111	36.43		37	41.9		17	^		57	30.34	
Child(ren) only (no adults)	7	^		2	^		2	^		3	^	

NOTES:^ Results not statistically reliable, n<30.

[a]Significance tests were performed to determine whether an association exists between the outcome indicator (COVID-19 awareness and adoption of COVID-19 mitigation protocols) and the disaggregate variable (gendered household type). Associations found to be statistically significant are indicated by level: * p<0.05, ** p<0.01, *** p<0.001; ns=not significant.

[1] Includes households that are aware of the COVID-19 virus and reported doing something to protect themselves. Multiple responses allowed. Totals may add up to more than 100 percent.

Table 51: A6.19. Percentage of households who experienced COVID-19 impacts on livelihoods, by type of impact [Baseline Study, Niger 2020]

	Combined RFSA areas	Girma	Hamzari	Wadata
Inability to access market to buy inputs (restrictions or market closed)	18.1	19.0	22.6	12.7
Inability to access market to sell livestock and livestock products (movement restrictions or market closed)	9.7	7.9	19.5	7.3
Inability to farm and/or care for livestock due to sickness of household member	1.2	1.0	2.3	0.9
Constrained access to farmland	2.4	2.2	5.5	0.9
Constrained access to grazing pasture	1.7	1.8	3.4	0.5
Constrained access to water	0.7	0.2	1.5	1.2
Shortage of crop inputs (seeds, fertilizer, pesticides)	2.4	1.2	7.0	2.0
Shortage of livestock inputs (feed and veterinary services)	1.6	1.5	2.7	1.3
Increase in price of crop inputs	12.9	12.1	22.8	8.0
Increase in price of livestock inputs	5.4	4.6	8.6	5.1
Increase in transportation costs	28.4	27.6	40.5	22.2
Increase in storage costs	6.1	4.9	12.7	4.3
Decrease in price of products sold	7.3	6.6	9.8	7.1
Increase in price of products sold	24.3	24.9	28.9	19.5
Decrease in demand for products	5.1	3.9	10.3	4.4
Difficulty accessing financial services and credit	1.6	1.4	2.2	1.5
Labor shortages (lack of labor to help with farming, herding, and processing)	5.1	5.7	10.0	0.3
Inability to engage with other community members in asset-building activities	6.4	7.4	4.4	5.5
Lost employment	16.1	17.6	16.5	12.2
Looting/theft	0.3	0.2	0.2	0.4
No longer receiving remittances	2.6	3.4	1.0	1.7
Inability to access health care	0.5	0.1	2.2	0.3
Illness	0.5	0.2	1.5	0.3
Death	0.2	0.2	0.5	0.2
Reduction in income	26.8	29.2	21.3	24.9
Inability to repay loans	6.9	6.0	5.6	9.9
Other impact on income	5.0	7.3	0.8	2.2
Not applicable/Livelihood not affected by COVID-19	22.0	21.0	12.8	30.5
Don't know/refused	1.9	2.2	2.3	1.1

	Combined RFSA areas	Girma	Hamzari	Wadata
Number of responding households	2,220	754	746	720

NOTES: Includes only households that are aware of COVID-19. Multiple responses allowed. Totals may add up to more than 100 percent

Table 52: A6.20. Percentage of households who experienced COVID-19 impacts on food security, by type of impact [Baseline Study, Niger 2020]

	Combined RFSA areas	Girma	Hamzari	Wadata
Movement restrictions or market closed	46.1	50.0	51.1	33.5
Transportation costs too expensive/no public transport	39.0	37.8	59.9	27.3
Traders are absent from the markets	28.0	30.1	41.8	13.4
Products not available in the market	36.7	40.6	53.8	15.9
Price of foods increased	61.5	64.9	70.4	47.4
Delay in food/cash transfer	4.7	3.7	5.4	6.5
Other impact on food security	0.8	1.3	0.5	0.0
Not applicable/Food security not affected by COVID-19	18.3	18.2	6.8	26.4
Don't know/refused	1.1	1.3	1.4	0.6
Number of responding households	2,220	754	746	720

NOTES: Includes only households that are aware of COVID-19. Multiple responses allowed. Totals may add up to more than 100 percent.

Table 53: A6.21. Coping strategies for COVID-19 impacts on livelihoods [Baseline Study, Niger 2020]

	Combined RFSA areas	Girma	Hamzari	Wadata
Livestock and land holdings				
Sold livestock	20.6	22.6	18.9	16.7
Sold livestock at lower price (no demand due to lockdowns or other restrictions)	12.1	14.0	10.8	7.9
Slaughtered livestock	2.5	2.6	2.4	2.1
Leased out land	0.4	0.5	0.3	0.4
Sent livestock in search of pasture	0.3	0.1	0.4	0.8
Crops				
Consumed food that in normal times would sell	10.0	8.6	21.4	4.0
Sold food at a lower price (no demand due to lockdowns or other restrictions)	8.5	9.1	11.2	4.6
Stored unsold crops	4.3	2.5	9.1	5.1
Donated/gift unsold crops	2.8	3.4	4.2	0.1
Threw out unsold crops	1.9	1.9	4.0	0.3
Migration				

	Combined RFSA areas	Girma	Hamzari	Wadata
Migrate (only some family members)	0.9	0.9	1.6	0.3
Migrate (the whole family)	0.8	1.2	0.1	0.2
Sent children or an adult to stay with relatives/others	0.8	0.9	0.6	0.7
Reduce current expenditure				
Reduced food consumption (quantity/meal; # meal/day)	38.4	41.9	43.8	24.4
Reduced non-essential household expenses	17.9	15.4	25.7	17.8
Took children out of school	11.6	11.8	17.2	6.4
Got food on credit from a local merchant	8.3	8.1	10.2	7.1
Moved to less expensive housing	0.1	0.1	0.2	0.0
Acquiring more food or money				
Took out a loan (no interest) from friends or relatives within the community	97.5	96.2	98.6	99.7
Used savings to feed the family	4.9	3.0	3.6	11.1
Took up new/additional work (casual labor, wage labor)	3.6	3.3	8.0	1.0
Sold household items (e.g., radio, bed)	3.0	3.6	2.3	2.0
Took out a loan (no interest) from friends or relatives outside of the community	3.0	3.4	2.2	2.4
Relied on remittances from a relative that migrated	1.8	2.0	0.7	2.4
Took out a loan (with interest) from a money-lender	1.6	1.7	1.0	1.9
Used own savings to pay for other household necessities	0.8	0.3	1.6	1.6
Sold productive assets (e.g., plough, water pump)	0.6	0.9	0.5	0.0
Used savings to buy productive inputs	0.5	0.4	1.1	0.2
Unconditional gift of money (not remittances) or food from family, friends, church/mosque or other group outside of community	0.4	0.2	1.4	0.0
Sent children to work for money (e.g., domestic service)	0.4	0.3	0.9	0.0
Used savings to pay for health-care expenses	0.4	0.0	1.6	0.4
Took out a loan (with interest) from a (formal) bank	0.3	0.4	0.1	0.0
Unconditional gift of money (not remittances) or food from family, friends, church/mosque, or other group within community	0.3	0.1	1.3	0.0
Received emergency cash transfer from the government or NGO	0.3	0.4	0.1	0.0
Received permanent direct support food from the government or NGO	0.2	0.0	1.3	0.0
Used savings to buy livestock	0.2	0.1	0.2	0.2
Took out a loan (with interest) from an MFI/RUSACCO	0.1	0.0	0.1	0.2
Received emergency food aid from the government or NGO	0.1	0.0	0.7	0.0
Participated in government or NGO food-for-work or cash-for-work activities (conditional)	0.1	0.0	0.5	0.0

	Combined RFSA areas	Girma	Hamzari	Wadata
Used savings to pay for education costs	0.1	0.1	0.5	0.0
Used own savings to pay for repairs to dwelling or structures	0.1	0.0	0.6	0.1
Received permanent direct support cash transfer from the government or NGO	…	…	…	…
Coronavirus-specific				
Washed hands with water and soap	18.6	17.0	28.6	14.1
Washed hands more frequently	14.1	11.8	24.6	11.3
Avoided contact with sick member	5.8	5.1	12.3	2.1
Quarantine	4.2	2.7	2.2	10.0
Used physical separation to distance sick member from others	2.8	2.9	5.5	0.2
Sought help at a health clinic	0.6	0.2	2.3	0.0
Other				
Engaged in spiritual efforts (e.g., prayed, sacrifices, etc.)	19.0	22.4	1.8	24.6
Did nothing	7.3	8.5	3.1	7.7
Other (specify)	1.7	2.7	0.7	0.2
Don't know/Refused	0.1	0.1	0.0	0.0
Number of responding households	1,723	585	658	480

NOTES: Includes only households that are aware of COVID-19 and experienced impacts to their livelihoods due to COVID-19. Multiple responses allowed. Totals may add up to more than 100 percent.

Table 54: A6.22. Coping strategies for COVID-19 impacts on food security, by RFSA area [Baseline Study, Niger 2020]

	Combined RFSA areas	Girma	Hamzari	Wadata
Livestock and land holdings				
Sold livestock	22.2	27.0	16.8	14.2
Sold livestock at lower price (no demand due to lockdowns or other restrictions)	12.7	14.7	14.0	6.4
Slaughtered livestock	1.8	1.8	3.0	0.8
Leased out land	0.5	0.8	0.3	0.0
Sent livestock in search of pasture	0.4	0.4	0.5	0.5
Seeds				
Consumed saved seeds	24.5	21.7	41.5	16.9
Consumed saved crops from household's prior harvest	4.2	4.1	6.2	2.8
Migration				
Migrate (only some family members)	1.1	1.5	1.0	0.3
Sent children or an adult to stay with relatives/others	1.0	1.0	1.0	1.1
Migrate (the whole family)	0.8	1.3	0.0	0.0

	Combined RFSA areas	Girma	Hamzari	Wadata
Reduce current expenditure				
Reduced food consumption (quantity/meal; # meal/day)	37.8	40.1	47.5	23.3
Reduced non-essential household expenses	16.2	13.5	23.1	17.6
Took children out of school	9.9	10.0	15.3	5.2
Got food on credit from a local merchant	7.8	8.1	8.9	6.1
Moved to less expensive housing	0.9	1.1	1.4	0.0
Acquiring more food or money				
Took out a loan (no interest) from friends or relatives within the community	12.5	13.4	6.7	15.0
Used savings to feed the family	5.7	3.9	4.6	11.4
Took up new/additional work (casual labor, wage labor)	3.4	3.7	5.9	0.4
Sold household items (e.g., radio, bed)	3.3	4.0	1.9	2.4
Relied on remittances from a relative that migrated	3.2	4.1	1.4	2.2
Took out a loan (no interest) from friends or relatives outside of the community	3.0	3.5	1.5	3.0
Took out a loan (with interest) from a money-lender	1.6	2.3	0.0	0.9
Used own savings to pay for other household necessities	1.6	1.4	1.9	1.9
Sold productive assets (e.g., plough, water pump)	1.0	1.6	0.3	0.0
group outside of community	0.9	1.1	0.8	0.3
Used savings to buy productive inputs	0.7	0.6	1.6	0.3
Used savings to pay for health-care expenses	0.5	0.0	2.0	0.7
group within community	0.4	0.3	1.3	0.0
Sent children to work for money (e.g., domestic service)	0.4	0.0	2.0	0.1
Received emergency food aid from the government or NGO	0.4	0.2	1.2	0.0
Used own savings to pay for repairs to dwelling or structures	0.4	0.3	0.8	0.3
Received permanent direct support food from the government or NGO	0.3	0.0	1.5	0.0
Participated in government or NGO food-for-work or cash-for-work activities (conditional)	0.3	0.3	0.5	0.0
Used savings to buy livestock	0.3	0.3	0.4	0.2
Took out a loan (with interest) from a (formal) bank	0.2	0.2	0.2	0.3
Used savings to pay for education costs	0.2	0.0	0.9	0.0
Took out a loan (with interest) from an MFI/RUSACCO	0.1	0.0	0.1	0.2
Received emergency cash transfer from the government or NGO	0.0	0.0	0.2	0.0
Received permanent direct support cash transfer from the government or NGO	…	…	…	…
Other				
Engaged in spiritual efforts (e.g., prayed, sacrifices, etc.)	20.3	22.7	3.9	28.2
Did nothing	7.8	7.4	8.9	8.1
Other (specify)	1.1	1.8	0.5	0.0

	Combined RFSA areas	Girma	Hamzari	Wadata
Number of responding households	1,818	608	698	512

NOTES: Includes only households that are aware of COVID-19 and experienced impacts to their food security due to COVID-19. Multiple responses allowed. Totals may add up to more than 100 percent

ANNEX 7: BIVARIATE AND MULTIVARIATE TABLES

Table 55: A7.1a. Percentage of households by food consumption score (FCS) groups, by household characteristics and intervention-specific practices [Baseline Study, Niger 2020]

	Combined RFSA Areas						Girma						Hamzari						Wadatqa					
		Poor FCS	Borderline FCS	Acceptable FCS	Total			Poor FCS	Borderline FCS	Acceptable FCS	Total			Poor FCS	Borderline FCS	Acceptable FCS	Total			Poor FCS	Borderline FCS	Acceptable FCS	Total	
	N	%	%	%	%	Sig.[a]	N	%	%	%	%	Sig.[a]	N	%	%	%	%	Sig.[a]	N	%	%	%	%	Sig.[a]
Percentage of households by FCS groups	**1,890**	**4.9**	**15.2**	**80.0**	**100.0**		**672**	**5.1**	**16.9**	**78.0**	**100.0**		**684**	**7.4**	**15.1**	**77.5**	**100.0**		**534**	**1.9**	**10.4**	**87.7**	**100.0**	
Access to or use of financial services[1]																								
Accessed at least one ag-related financial service (credit, savings, insurance)																								
No	1,174	5.2	16.3	78.5	100.0	ns	372	5.3	19.1	75.6	100.0	ns	450	8.6	16.8	74.5	100.0	ns	352	2.1	9.5	88.5	100.0	ns
Yes	716	4.3	13.6	82.1	100.0		300	4.9	14.2	80.9	100.0		234	4.9	11.8	83.3	100.0		182	1.5	12.3	86.2	100.0	
Took out a loan (ag credit, in cash or in-kind)																								
No	1,412	5.4	15.4	79.2	100.0	ns	481	5.8	17.1	77.1	100.0	ns	500	8.0	16.7	75.3	100.0	ns	431	2.1	10.3	87.6	100.0	ns
Yes	478	3.3	14.3	82.4	100.0		191	3.1	16.3	80.6	100.0		184	5.8	11.0	83.2	100.0		103	0.9	10.7	88.4	100.0	
Participated in agri-related savings scheme																								
No	1,550	4.9	16.2	78.9	100.0	ns	530	4.9	18.8	76.3	100.0	ns	591	8.3	16.0	75.7	100.0	**	429	1.9	9.3	88.7	100.0	ns
Yes	340	4.6	11.5	83.9	100.0		142	5.8	11.1	83.1	100.0		93	0.5	8.3	91.2	100.0		105	1.8	15.0	83.2	100.0	
Insured ag production against loss (insurance)																								
No	1,863	4.9	15.0	80.1	100.0	ns	660	5.2	16.6	78.2	100.0	ns	678	7.4	15.2	77.4	100.0	ns	525	1.9	10.2	87.9	100.0	ns
Yes	27	3.1	24.6	72.3	100.0		12	4.5	28.7	66.8	100.0		6	0.0	5.0	95.0	100.0		9	0.0	19.3	80.7	100.0	
HH participated in group-based savings, microfinance or lending programs																								
No	1,771	4.8	15.5	79.7	100.0	ns	601	5.1	17.5	77.4	100.0	ns	651	7.6	15.2	77.2	100.0	ns	519	1.8	10.6	87.6	100.0	ns
Yes	119	5.1	12.3	82.6	100.0		71	5.3	13.1	81.7	100.0		33	1.9	13.3	84.8	100.0		15	5.9	0.0	94.1	100.0	
HH participated in group-based saving programs																								
No	1,795	4.8	15.3	79.9	100.0	ns	612	5.0	17.0	78.0	100.0	ns	661	7.5	15.3	77.2	100.0	ns	522	1.9	10.6	87.5	100.0	ns
Yes	95	5.7	14.1	80.2	100.0		60	6.3	15.5	78.3	100.0		23	2.8	6.8	90.4	100.0		12	0.0	0.0	100.0	100.0	
HH participated in group-based credit programs																								
No	1,841	5.0	15.6	79.4	100.0	*	646	5.4	17.6	77.0	100.0	ns	668	7.4	14.8	77.7	100.0	ns	527	1.8	10.5	87.7	100.0	ns
Yes	49	1.2	6.1	92.8	100.0		26	0.0	4.4	95.6	100.0		16	4.5	31.1	64.5	100.0		7	11.5	0.0	88.5	100.0	
Livestock holdings[2]																								
Raised at least one type of livestock																								
No	808	4.0	16.5	79.5	100.0	ns	245	3.6	18.8	77.6	100.0	ns	274	8.8	17.5	73.7	100.0	ns	289	1.7	11.9	86.4	100.0	ns
Yes	1,082	5.4	14.3	80.3	100.0		427	5.9	15.9	78.2	100.0		410	6.5	13.6	79.9	100.0		245	2.1	8.6	89.3	100.0	
Raised goats																								
No	949	4.1	16.9	79.0	100.0	ns	284	4.0	19.0	76.9	100.0	ns	328	8.3	18.4	73.3	100.0	ns	337	1.5	12.2	86.3	100.0	ns
Yes	941	5.5	13.7	80.8	100.0		388	5.9	15.5	78.7	100.0		356	6.6	12.1	81.3	100.0		197	2.7	7.1	90.2	100.0	
Raised sheep																								
No	1,464	5.0	16.7	78.3	100.0	*	508	5.1	19.0	75.9	100.0	ns	509	8.5	17.1	74.4	100.0	**	447	2.3	10.5	87.2	100.0	ns
Yes	426	4.4	10.5	85.2	100.0		164	5.3	10.7	84.0	100.0		175	4.4	10.2	85.4	100.0		87	0.0	9.7	90.3	100.0	
Raised poultry																								
No	1,434	5.0	14.5	80.5	100.0	ns	485	5.1	15.4	79.5	100.0	ns	541	8.1	15.7	76.1	100.0	ns	408	2.0	11.0	87.0	100.0	ns
Yes	456	4.4	17.1	78.5	100.0		187	5.3	20.9	73.8	100.0		143	4.4	12.8	82.9	100.0		126	1.6	8.5	89.9	100.0	
Adoption of targeted improved crop management practices[3]																								
Used at least one improved crop management practice - any crop																								
No	129	8.3	20.4	71.3	100.0	ns	44	8.9	25.4	65.7	100.0	ns	19	39.6	23.5	36.9	100.0	***	66	0.0	10.3	89.7	100.0	ns
Yes	1,761	4.5	14.7	80.7	100.0		628	4.8	16.1	79.1	100.0		665	6.3	14.8	78.9	100.0		468	2.2	10.4	87.4	100.0	
Dug zai pits																								
No	1,756	4.6	15.0	80.5	100.0	ns	636	4.5	16.4	79.1	100.0	ns	593	8.5	15.4	76.1	100.0	ns	527	1.9	10.6	87.5	100.0	ns
Yes	134	8.6	18.0	73.4	100.0		36	14.5	22.9	62.6	100.0		91	1.7	13.5	84.8	100.0		7	0.0	0.0	100.0	100.0	
Dug agri half-moons																								
No	1,839	5.0	14.9	80.1	100.0	ns	649	5.3	16.6	78.1	100.0	ns	660	7.4	14.9	77.6	100.0	ns	530	1.9	10.4	87.6	100.0	ns
Yes	51	1.3	23.3	75.4	100.0		23	0.0	26.3	73.7	100.0		24	5.2	19.8	75.0	100.0		4	0.0	0.0	100.0	100.0	
Applied organic manure																								
No	690	8.4	17.1	74.5	100.0	**	257	9.9	20.1	70.1	100.0	*	227	14.7	16.1	69.1	100.0	***	206	0.0	9.9	90.1	100.0	ns
Yes	1,200	3.0	14.2	82.8	100.0		415	2.7	15.2	82.1	100.0		457	4.0	14.6	81.3	100.0		328	3.0	10.6	86.4	100.0	
Applied phosphatic manure																								
No	1,637	5.2	15.4	79.4	100.0	ns	586	5.3	16.9	77.8	100.0	ns	565	8.9	16.8	74.4	100.0	**	486	2.1	10.2	87.7	100.0	ns
Yes	253	2.8	13.7	83.5	100.0		86	4.1	16.5	79.4	100.0		119	1.2	8.2	90.5	100.0		48	0.0	12.2	87.8	100.0	
Applied compost																								
No	1,387	5.4	15.6	79.0	100.0	ns	451	5.8	18.0	76.2	100.0	ns	453	10.3	16.2	73.5	100.0	*	483	1.9	10.0	88.1	100.0	ns
Yes	503	3.2	14.0	82.8	100.0		221	3.5	14.1	82.3	100.0		231	2.6	13.4	83.9	100.0		51	2.0	15.6	82.4	100.0	
Applied microdoses of fertilizer																								
No	1,771	4.8	15.5	79.7	100.0	ns	643	5.0	17.2	77.8	100.0	ns	606	7.6	16.0	76.4	100.0	ns	522	1.9	10.2	87.9	100.0	ns
Yes	119	6.3	9.5	84.3	100.0		29	7.4	9.6	83.0	100.0		78	5.8	7.4	86.8	100.0		12	0.0	20.5	79.5	100.0	
Controlled sida cordifolia growth																								
No	1,608	5.1	16.0	78.9	100.0	ns	548	5.5	18.0	76.5	100.0	ns	536	8.3	17.0	74.6	100.0	ns	524	1.9	10.3	87.8	100.0	ns
Yes	282	3.4	10.4	86.3	100.0		124	3.2	10.9	85.9	100.0		148	4.0	8.5	87.4	100.0		10	0.0	16.7	83.3	100.0	
Performed at least 3 weedings																								
No	1,255	5.2	16.1	78.7	100.0	ns	371	5.4	18.3	76.3	100.0	ns	433	10.6	16.4	72.9	100.0	ns	451	1.7	11.5	86.8	100.0	ns

	Combined RFSA Areas						Girma						Hamzari						Wadatqa					
		Poor FCS	Borderline FCS	Acceptable FCS	Total			Poor FCS	Borderline FCS	Acceptable FCS	Total			Poor FCS	Borderline FCS	Acceptable FCS	Total			Poor FCS	Borderline FCS	Acceptable FCS	Total	
	N	%	%	%	%	Sig.[a]	N	%	%	%	%	Sig.[a]	N	%	%	%	%	Sig.[a]	N	%	%	%	%	Sig.[a]
Yes 635		4.1	13.4	82.5	100.0		301	4.7	14.7	80.6	100.0		251	2.7	13.2	84.1	100.0		83	2.9	3.5	93.6	100.0	
Delayed seedlings until 3rd/4th rains to control pests																								
No	1,695	5.1	15.3	79.6	100.0	ns	594	5.6	17.4	77.0	100.0	ns	571	7.8	14.7	77.5	100.0	ns	530	1.9	10.4	87.6	100.0	ns
Yes	195	2.5	14.3	83.2	100.0		78	2.1	13.5	84.4	100.0		113	4.3	18.2	77.5	100.0		4	0.0	0.0	100.0	100.0	
Sowed after useful rain																								
No	1,124	6.1	15.3	78.6	100.0	ns	339	7.0	17.2	75.7	100.0	ns	380	9.3	17.0	73.6	100.0	ns	405	2.1	9.9	88.0	100.0	Ns
Percentage of households by FCS groups	**1,890**	**4.9**	**15.2**	**80.0**	**100.0**		**672**	**5.1**	**16.9**	**78.0**	**100.0**		**684**	**7.4**	**15.1**	**77.5**	**100.0**		**534**	**1.9**	**10.4**	**87.7**	**100.0**	
Yes	766	2.9	15.0	82.1	100.0		333	2.5	16.4	81.1	100.0		304	5.0	12.8	82.2	100.0		129	1.4	11.8	86.9	100.0	
Performed crop association																								
No	839	5.4	15.2	79.5	100.0	ns	276	7.0	17.2	75.8	100.0	ns	181	7.5	18.0	74.5	100.0	ns	382	1.4	10.1	88.6	100.0	ns
Yes	1,051	4.4	15.2	80.4	100.0		396	3.5	16.6	79.9	100.0		503	7.3	14.1	78.6	100.0		152	3.0	11.0	86.0	100.0	
Performed crop rotation																								
No	1,784	4.8	15.2	80.0	100.0	ns	644	4.9	16.8	78.2	100.0	ns	617	8.0	15.2	76.8	100.0	ns	523	1.8	10.6	87.6	100.0	ns
Yes	106	6.8	14.5	78.7	100.0		28	11.7	18.0	70.2	100.0		67	1.8	14.0	84.2	100.0		11	6.8	0.0	93.2	100.0	
Used Seed treatment w/fungicides																								
No	1,685	5.2	15.2	79.6	100.0	ns	637	5.4	16.8	77.7	100.0	ns	556	8.6	15.4	76.0	100.0	ns	492	2.1	10.0	87.9	100.0	ns
Yes	205	0.5	15.2	84.3	100.0		35	0.0	17.5	82.5	100.0		128	1.5	13.9	84.7	100.0		42	0.0	13.6	86.4	100.0	
Used improved seeds																								
No	1,701	5.3	14.4	80.3	100.0	ns	587	5.8	15.7	78.6	100.0	ns	585	8.7	15.3	76.0	100.0	ns	529	1.9	10.5	87.6	100.0	ns
Yes	189	1.3	21.1	77.6	100.0		85	1.4	24.0	74.6	100.0		99	1.1	14.0	84.9	100.0		5	0.0	0.0	100.0	100.0	
Used climate information																								
No	1,862	4.9	15.1	80.0	100.0	ns	667	5.2	16.7	78.1	100.0	ns	661	7.5	15.4	77.1	100.0	ns	534	1.9	10.4	87.7	100.0	
Yes	28	0.0	18.8	81.2	100.0		5	0.0	26.8	73.2	100.0		23	0.0	2.8	97.2	100.0		0.0	...	...	...	...	
Adoption of targeted improved post-harvest handling and storage practice/technique[4]																								
Used at least one improved post-harvest handling/storage practice - any crop																								
No	963	6.2	16.1	77.8	100.0	ns	427	6.2	17.1	76.6	100.0	ns	227	14.5	20.1	65.5	100.0	*	309	1.4	10.2	88.4	100.0	ns
Yes	927	3.1	14.0	82.9	100.0		245	3.0	16.3	80.6	100.0		457	3.7	12.6	83.7	100.0		225	2.5	10.5	87.0	100.0	
Used locally made storage structure- any crop																								
No	1,419	5.3	16.4	78.3	100.0	*	609	5.5	17.5	77.0	100.0	ns	408	10.6	19.2	70.2	100.0	ns	402	1.1	10.0	89.0	100.0	ns
Yes	471	2.7	10.0	87.3	100.0		63	0.0	7.8	92.2	100.0		276	3.3	10.0	86.7	100.0		132	3.8	11.3	84.9	100.0	
Used sealed/airtight bags - any crop																								
No	1,398	5.0	15.6	79.4	100.0	ns	572	4.8	16.8	78.4	100.0	ns	375	10.8	18.0	71.2	100.0	*	451	2.0	11.0	87.0	100.0	ns
Yes	492	4.4	13.2	82.4	100.0		100	7.2	17.6	75.1	100.0		309	2.8	11.2	86.0	100.0		83	1.2	7.0	91.8	100.0	
Used community storage facility - any crop																								
No	1,743	5.0	15.5	79.5	100.0	ns	618	5.1	17.3	77.5	100.0	ns	626	8.3	15.5	76.2	100.0	ns	499	2.0	10.3	87.7	100.0	ns
Yes	147	3.4	12.3	84.3	100.0		54	5.3	12.4	82.2	100.0		58	0.0	12.0	88.0	100.0		35	0.0	11.9	88.1	100.0	
Used solar/fuel-powered dryers - any crop																								
No	1,864	4.9	15.1	80.0	100.0	ns	663	5.2	16.7	78.1	100.0	ns	673	7.2	15.2	77.6	100.0	ns	528	1.9	10.5	87.6	100.0	ns
Yes	26	3.2	22.8	74.1	100.0		9	0.0	31.1	68.9	100.0		11	25.9	7.4	66.7	100.0		6	0.0	0.0	100.0	100.0	
Used seed/grain treatment pest control tech. - any crop																								
No	1,865	4.9	15.0	80.1	100.0	ns	658	5.2	16.6	78.2	100.0	ns	674	7.5	15.2	77.2	100.0	ns	533	1.9	10.4	87.7	100.0	ns
Yes	25	0.0	26.2	73.8	100.0		14	0.0	32.9	67.1	100.0		10	0.0	8.9	91.1	100.0		1	0.0	0.0	100.0	100.0	
Used agrochemical grain treatment - any crop																								
No	1,842	4.9	14.8	80.3	100.0	ns	661	5.3	16.4	78.3	100.0	ns	654	7.8	15.4	76.8	100.0	ns	527	1.5	9.6	88.9	100.0	***
Yes	48	2.6	26.8	70.6	100.0		11	0.0	31.3	68.7	100.0		30	0.0	10.5	89.5	100.0		7	19.6	46.7	33.6	100.0	
Used triple bags - any crop																								
No	1,769	5.1	15.7	79.2	100.0	*	662	5.3	17.0	77.7	100.0	ns	604	8.4	16.6	75.0	100.0	ns	503	1.8	11.1	87.2	100.0	ns
Yes	121	1.0	5.5	93.5	100.0		10	0.0	10.3	89.7	100.0		80	0.0	5.0	95.0	100.0		31	3.3	2.0	94.7	100.0	
Used other post harvest practices - any crop																								
No	1,737	5.2	15.2	79.6	100.0	ns	575	5.9	17.2	76.9	100.0	ns	645	7.0	15.3	77.7	100.0	ns	517	2.0	10.2	87.9	100.0	ns
Yes	153	2.0	15.0	83.0	100.0		97	1.0	15.0	84.0	100.0		39	12.3	12.8	74.8	100.0		17	0.0	18.0	82.0	100.0	
Used at least one improved livestock mgmt practice - any livestock[5]																								
No	1,181	4.6	15.5	79.8	100.0	ns	371	4.8	17.8	77.4	100.0	ns	404	8.5	17.3	74.2	100.0	ns	406	1.8	9.8	88.5	100.0	ns
Yes	709	5.2	14.7	80.1	100.0		301	5.5	15.8	78.7	100.0		280	5.8	12.1	82.1	100.0		128	2.4	12.2	85.4	100.0	
Percentage of harvest completed by the household in the current season																								
Did not harvest any crops	233	7.7	19.2	73.2	100.0	ns	41	13.3	33.4	53.3	100.0	ns	74	6.8	14.3	78.8	100.0	ns	118	3.1	9.0	87.9	100.0	ns
Less than 25 percent	975	2.6	16.2	81.3	100.0		334	2.6	18.8	78.6	100.0		321	5.0	15.2	79.8	100.0		320	0.7	11.3	88.0	100.0	
25 - 50 percent	468	7.5	13.3	79.3	100.0		193	7.8	13.9	78.3	100.0		187	7.7	14.0	78.3	100.0		88	5.3	8.9	85.7	100.0	
More than 50 percent	214	6.6	12.5	81.0	100.0		104	4.4	11.5	84.1	100.0		102	15.8	17.2	67.0	100.0		8	0.0	0.0	100.0	100.0	
Impact of COVID-19 on household livelihood/food security																								
Household livelihood was impacted by COVID-19																								
No	406	4.6	13.3	82.1	100.0	ns	148	4.0	14.0	82.0	100.0	ns	85	11.3	20.0	68.8	100.0	ns	173	3.0	8.7	88.3	100.0	ns
Yes	1,508	4.9	15.7	79.4	100.0		532	5.4	17.6	77.0	100.0		604	6.9	14.3	78.7	100.0		372	1.4	11.1	87.5	100.0	
Household food security was impacted by COVID-19																								
No	326	5.4	16.2	78.4	100.0	ns	128	6.0	18.9	75.1	100.0	ns	47	7.5	20.7	71.8	100.0	ns	151	3.4	9.2	87.4	100.0	ns
Yes	1,588	4.7	14.9	80.4	100.0		552	4.9	16.3	78.8	100.0		642	7.6	14.7	77.7	100.0		394	1.3	10.8	87.9	100.0	

	Combined RFSA Areas						Girma						Hamzari						Wadatqa					
		Poor FCS	Borderline FCS	Acceptable FCS	Total			Poor FCS	Borderline FCS	Acceptable FCS	Total			Poor FCS	Borderline FCS	Acceptable FCS	Total			Poor FCS	Borderline FCS	Acceptable FCS	Total	
	N	%	%	%	%	Sig.[a]	N	%	%	%	%	Sig.[a]	N	%	%	%	%	Sig.[a]	N	%	%	%	%	Sig.[a]
Percentage of households by FCS groups	**1,890**	**4.9**	**15.2**	**80.0**	**100.0**		**672**	**5.1**	**16.9**	**78.0**	**100.0**		**684**	**7.4**	**15.1**	**77.5**	**100.0**		**534**	**1.9**	**10.4**	**87.7**	**100.0**	
Participation in social assistance programs																								
HH participated in the RFSA																								
No (indirect participant)	930	5.9	16.9	77.3	100.0	*	395	6.2	18.3	75.5	100.0	ns	316	6.7	15.0	78.3	100.0	ns	219	3.7	12.9	83.3	100.0	ns
Yes (direct participant)	960	3.5	13.0	83.5	100.0		277	3.4	14.6	82.0	100.0		368	8.1	15.3	76.6	100.0		315	0.5	8.4	91.1	100.0	
HH received food rations - any donor																								
No	1,418	5.1	16.1	78.8	100.0	ns	568	5.2	17.5	77.3	100.0	ns	524	7.3	15.2	77.6	100.0	ns	326	2.5	12.0	85.5	100.0	ns
Yes	472	3.9	12.2	83.9	100.0		104	4.7	14.5	80.8	100.0		160	7.8	14.8	77.4	100.0		208	0.8	7.5	91.7	100.0	
HH participated in nutrition trainings/meetings - any donor																								
No	1,359	4.9	15.6	79.5	100.0	ns	459	4.7	17.1	78.2	100.0	ns	529	8.4	15.0	76.6	100.0	ns	371	2.3	11.9	85.8	100.0	ns
Yes	531	4.7	14.2	81.2	100.0		213	6.0	16.3	77.6	100.0		155	3.8	15.3	80.9	100.0		163	1.0	6.6	92.4	100.0	
HH participated in agriculture-related trainings/meetings - any donor																								
No	1,277	5.1	15.7	79.2	100.0	ns	424	5.0	17.2	77.8	100.0	ns	480	8.8	15.8	75.4	100.0	ns	373	2.1	12.0	85.8	100.0	ns
Yes	613	4.5	14.2	81.4	100.0		248	5.4	16.3	78.3	100.0		204	3.8	13.4	82.8	100.0		161	1.3	6.2	92.5	100.0	
Food rations by RFSA participation status																								
Did not receive any food rations	1,418	5.1	16.1	78.8	100.0	ns	568	5.2	17.5	77.3	100.0	ns	524	7.3	15.2	77.6	100.0	ns	326	2.5	12.0	85.5	100.0	ns
Received food rations - direct RFSA participant[6]	345	2.9	10.6	86.5	100.0		46	3.8	13.6	82.5	100.0		118	8.9	14.1	77.0	100.0		181	0.4	7.5	92.1	100.0	
Received food rations - indirect RFSA participant[7]	127	5.3	14.5	80.3	100.0		58	5.3	15.0	79.7	100.0		42	6.2	15.9	78.0	100.0		27	3.9	7.7	88.4	100.0	
Nutrition trainings/meetings by RFSA participation status																								
Did not participate in any nutrition trainings/meetings	1,359	4.9	15.6	79.5	100.0	ns	459	4.7	17.1	78.2	100.0	ns	529	8.4	15.0	76.6	100.0	ns	371	2.3	11.9	85.8	100.0	ns
Participated in nutrition trainings/meetings - direct RFSA participant[6]	433	3.1	15.1	81.8	100.0		145	3.8	18.5	77.6	100.0		135	4.7	16.6	78.7	100.0		153	0.5	7.0	92.5	100.0	
Participated in nutrition trainings/meetings -indirect RFSA participant[7]	98	9.0	11.6	79.4	100.0		68	10.0	12.4	77.7	100.0		20	0.0	10.2	89.8	100.0		10	9.2	0.0	90.8	100.0	
Agriculture trainings/meetings by RFSA participation status																								
Did not participate in any ag trainings/meetings	1,277	5.1	15.7	79.2	100.0	ns	424	5.0	17.2	77.8	100.0	ns	480	8.8	15.8	75.4	100.0	ns	373	2.1	12.0	85.8	100.0	*
Participated in agri. trainings and meetings - direct RFSA participant[6]	470	3.9	13.8	82.3	100.0		168	4.7	16.9	78.4	100.0		160	5.2	13.9	80.9	100.0		142	0.5	4.8	94.7	100.0	
Participated in agri. trainings/meetings -indirect RFSA participant[7]	143	5.8	14.8	79.3	100.0		80	6.7	15.2	78.1	100.0		44	0.0	12.1	87.9	100.0		19	6.8	15.6	77.6	100.0	
Number of responding households	**1,890**	**84**	**272**	**1,534**			**672**	**30**	**115**	**527**			**684**	**45**	**105**	**534**			**534**	**9**	**52**	**473**		

NOTES: Sample restricted to households with data available across all covariates.

[a] Significance tests were performed to determine whether an association exists between the outcome indicator (FCS groups) and the disaggregate variables. Associations found to be statistically significant are indicated by level: * p<0.05, ** p<0.01, *** p<0.001; ns=not significant.

[1] A household is considered to access or use a financial service if at least one member accessed or used the services. For ag-related measures of use of financial services, a household is considered to have used a financial service if any farmer reported taking out an agriculture loan, participating in an agriculture saving scheme, or taking out agricultural insurance.

[2] A household is considered to raise at least one livestock if at least one farmer reported raising any of the three livestock of interest (goats, sheep, and poultry).

[3] A household is considered to be using at least one improved crop management practices if at least one farmer reported using any of the promoted practices for any one of the three crops of interest (sorghum, millet, cowpeas and peanuts).

[4] A household is considered to be using at least one improved post-harvest practice if at least one farmer reported using any of the promoted practices for any one of the crops of interest (sorghum, millet, cowpeas and peanuts). [5] A household is considered to be using at least one improved livestock management practices if at least one farmer reported using any of the promoted practices for any one of the livestock of interest (goats, sheep, or poultry). [6] Defined as households who reported participating in the RFSA and receiving/participating in the specific intervention (e.g., food rations, nutrition trainings/meetings, ag trainings/meetings).

[7] Defined as households who reported not participating in the RFSA but reported receiving/participating in the specific intervention (e.g., food rations, nutrition trainings/meetings, ag trainings/meetings).

Table 56: A7.1b. Mean household food consumption score (FCS), by household characteristics and intervention-specific practices [Baseline Study, Niger 2020]

	Combined RFSA Areas			Girma			Hamzari			Wadata		
	N	Mean FCS	Sig.[a]	N	Mean FCS	Sig.[a]	N	Mean FCS	Sig.[a]	N	Mean FCS	Sig.[a]
All households	**1,890**	**51.3**		**672**	**48.9**		**684**	**52.3**		**534**	**57.1**	
Access to or use of financial services[1]												
Accessed at least one ag-related financial service (credit, savings, insurance)												
No	1,174	50.7	ns	372	48.3	ns	450	50.7	*	352	56.0	ns
Yes	716	52.1		300	49.6		234	55.5		182	59.5	
Took out a loan (ag credit, in cash or in-kind)												

	Combined RFSA Areas			Girma			Hamzari			Wadata		
	N	Mean FCS	Sig.[a]	N	Mean FCS	Sig.[a]	N	Mean FCS	Sig.[a]	N	Mean FCS	Sig.[a]
No	1,412	51.2	ns	481	49.2	ns	500	51.1	†	431	56.4	ns
Yes	478	51.5		191	48.0		184	55.5		103	60.8	
Participated in agri-related savings scheme												
No	1,550	50.4	*	530	47.6	*	591	51.3	**	429	56.8	ns
Yes	340	54.6		142	52.8		93	60.2		105	58.6	
Insured ag production against loss (insurance)												
No	1,863	51.3	ns	660	49.0	ns	678	52.3	ns	525	57.1	ns
Yes	27	47.6		12	42.3		6	52.6		9	62.9	
HH participated in group-based savings, microfinance or lending programs												
No	1,771	50.8	†	601	47.9	*	651	51.9	*	519	57.0	ns
Yes	119	56.0		71	55.0		33	61.8		15	64.1	
HH participated in group-based saving programs												
No	1,795	50.8	†	612	48.1	†	661	51.9	*	522	56.9	**
Yes	95	56.6		60	55.2		23	66.8		12	67.7	
HH participated in group-based credit programs												
No	1,841	50.9	*	646	48.2	**	668	52.4	ns	527	57.1	ns
Yes	49	60.4		26	61.3		16	48.6		7	62.0	
Livestock holdings[2]												
Raised at least one type of livestock												
No	808	50.5	ns	245	47.5	ns	274	51.5	ns	289	55.5	ns
Yes	1,082	51.7		427	49.6		410	52.8		245	59.1	
Raised goats												
No	949	50.6	ns	284	47.4	ns	328	52.0	ns	337	55.4	*
Yes	941	51.8		388	49.8		356	52.6		197	60.3	
Raised sheep												
No	1,464	49.7	***	508	47.1	***	509	50.1	***	447	56.0	***
Yes	426	56.2		164	54.0		175	58.0		87	62.9	
Raised poultry												
No	1,434	50.5	†	485	48.1	ns	541	51.3	*	408	56.6	ns
Yes	456	53.6		187	51.2		143	56.4		126	58.9	
Adoption of targeted improved crop management practices[3]												
Used at least one improved crop management practice - any crop												
No	129	43.4	***	44	37.4	***	19	31.8	***	66	57.4	ns
Yes	1,761	52.0		628	49.9		665	53.0		468	57.1	
Dug zai pits												
No	1,756	51.6	ns	636	49.7	***	593	51.2	†	527	57.1	ns
Yes	134	47.2		36	37.8		91	58.4		7	59.8	
Dug agri half-moons												
No	1,839	51.3	ns	649	49.0	ns	660	52.2	ns	530	57.0	*
Yes	51	50.1		23	46.8		24	54.5		4	73.9	
Applied organic manure												
No	690	46.8	***	257	43.3	**	227	47.7	*	206	55.4	ns
Yes	1,200	53.5		415	51.7		457	54.4		328	58.2	
Applied phosphatic manure												

	Combined RFSA Areas			Girma			Hamzari			Wadata		
	N	Mean FCS	Sig.[a]	N	Mean FCS	Sig.[a]	N	Mean FCS	Sig.[a]	N	Mean FCS	Sig.[a]
No	1,637	50.6	*	586	48.5	ns	565	49.7	**	486	57.1	ns
Yes	253	55.5		86	51.5		119	63.1		48	57.8	
Applied compost												
No	1,387	50.3	*	451	47.3	*	453	49.0	*	483	57.4	ns
Yes	503	54.1		221	52.7		231	57.6		51	53.9	
Applied microdoses of fertilizer												
No	1,771	50.8	**	643	48.5	†	606	51.2	**	522	57.1	ns
Yes	119	60.0		29	58.8		78	61.5		12	61.3	
Controlled sida cordifolia growth												
No	1,608	50.5	*	548	47.9	*	536	50.3	*	524	57.2	ns
Yes	282	55.9		124	54.4		148	59.1		10	57.9	
Performed at least 3 weedings												
No	1,255	50.9	ns	371	48.6	ns	433	49.5	ns	451	56.5	ns
Yes	635	51.9		301	49.3		251	56.4		83	61.3	
Delayed seedlings at 3rd/4th rains to control pests												
No	1,695	51.4	ns	594	48.8	ns	571	52.3	ns	530	57.2	ns
Yes	195	50.2		78	49.5		113	52.5		4	50.0	
Sowed after useful rain												
No	1,124	50.8	ns	339	47.8	ns	380	49.6	ns	405	58.1	†
Yes	766	52.0		333	50.4		304	55.6		129	54.3	
Performed crop association												
No	839	50.7	ns	276	46.7	ns	181	51.4	ns	382	58.5	ns
Yes	1,051	51.8		396	50.8		503	52.7		152	54.5	
Performed crop rotation												
No	1,784	51.2	ns	644	49.1	*	617	51.3	*	523	57.3	ns
Yes	106	51.9		28	42.4		67	61.6		11	52.7	
Used Seed treatment w/fungicides												
No	1,685	50.9	*	637	48.6	ns	556	51.7	ns	492	57.2	ns
Yes	205	55.6		35	54.8		128	55.3		42	57.2	
Used improved seeds												
No	1,701	51.3	ns	587	48.9	ns	585	51.4	ns	529	57.1	*
Yes	189	51.1		85	48.8		99	56.9		5	69.4	
Used climate information												
No	1,862	51.3	ns	667	49.0	ns	661	52.2	ns	534	57.2	
Yes	28	48.9		5	44.9		23	56.8		0	...	
Adoption of targeted improved post-harvest handling and storagepractices[4]												
Used at least one improved post-harvest handling/storage practice - any crop												
No	963	49.2	**	427	47.1	*	227	47.5	ns	309	57.3	ns
Yes	927	54.1		245	52.3		457	54.8		225	57.0	
Used local made storage - any crop												
No	1,419	50.2	*	609	48.3	*	408	49.8	ns	402	57.6	ns
Yes	471	55.9		63	56.4		276	55.4		132	56.1	
Used sealed/airtight bags - any crop												

	Combined RFSA Areas			Girma			Hamzari			Wadata		
	N	Mean FCS	Sig.[a]	N	Mean FCS	Sig.[a]	N	Mean FCS	Sig.[a]	N	Mean FCS	Sig.[a]
No	1,398	50.2	*	572	48.2	ns	375	48.4	*	451	57.3	ns
Yes	492	55.6		100	53.3		309	57.5		83	56.7	
Used community storage facility - any crop												
No	1,743	50.8	ns	618	48.6	ns	626	51.0	*	499	56.8	†
Yes	147	55.7		54	51.9		58	62.5		35	62.8	
Used solar/fuel-powered dryers - any crop												
No	1,864	51.3	ns	663	48.9	ns	673	52.3	ns	528	57.1	***
Yes	26	51.3		9	47.3		11	54.8		6	65.2	
Used seed/grain treatment pest control tech. - any crop												
No	1,865	51.3	ns	658	48.9	ns	674	52.3	ns	533	57.1	***
Yes	25	49.9		14	48.3		10	52.7		1	64.0	
Used agrochemical grain treatment - any crop												
No	1,842	51.2	ns	661	48.9	ns	654	51.7	*	527	57.5	ns
Yes	48	51.9		11	48.2		30	62.7		7	41.8	
Used triple bags - any crop												
No	1,769	50.7	**	662	48.4	*	604	51.1	***	503	57.3	ns
Yes	121	61.6		10	69.0		80	61.0		31	55.6	
Used other post harvest practices - any crop												
No	1,737	51.3	ns	575	48.4	ns	645	52.5	ns	517	57.3	ns
Yes	153	51.2		97	51.4		39	49.2		17	51.3	
Adoption of targeted improved livestock practices[5]												
Used at least one improved livestock mgmt practice - any livestock												
No	1,181	50.2	†	371	47.1	†	404	50.9	ns	406	56.2	ns
Yes	709	52.7		301	51.0		280	54.2		128	60.4	
Completion of harvest for the 2020 season												
Percentage of harvest completed by the household in the current season												
Did not harvest any crops in the current season	233	50.1	(ref.)	41	38.8	(ref.)	74	53.2	(ref.)	118	58.5	(ref.)
Less than 25 percent	975	52.0	ns	334	49.2	*	321	53.0	ns	320	57.3	ns
25 - 50 percent	468	49.5	ns	193	47.6	†	187	53.3	ns	88	55.3	ns
More than 50 percent	214	52.7	ns	104	54.0	**	102	47.6	ns	8	56.2	Ns
Impact of COVID-19 on household livelihood/food security												
Household livelihood was impacted by COVID-19												
No	406	51.2	ns	148	49.5	ns	85	50.2	ns	173	55.2	ns
Yes	1,508	51.4		532	48.9		604	52.5		372	58.0	
Household food security was impacted by COVID-19												
No	326	50.6	ns	128	48.5	ns	47	51.3	ns	151	54.9	ns
Yes	1,588	51.5		552	49.2		642	52.2		394	57.9	
Participation in social assistance programs												
HH participated in the RFSA												
No	930	49.7	*	395	47.7	†	316	51.9	ns	219	55.5	ns

	Combined RFSA Areas			Girma			Hamzari			Wadata		
	N	Mean FCS	Sig.[a]	N	Mean FCS	Sig.[a]	N	Mean FCS	Sig.[a]	N	Mean FCS	Sig.[a]
Yes	960	53.3		277	50.9		368	52.8		315	58.4	
HH received food rations - any donor												
No	1,418	50.7	ns	568	48.7	ns	524	52.1	ns	326	56.2	ns
Yes	472	53.2		104	49.6		160	53.5		208	58.9	
HH participated in nutrition trainings/meetings - any donor												
No	1,359	50.5	ns	459	48.2	ns	529	51.8	ns	371	55.6	*
Yes	531	53.1		213	50.4		155	54.3		163	61.1	
HH participated in agriculture-related trainings/meetings - any donor												
No	1,277	50.6	ns	424	48.5	ns	480	50.4	ns	373	55.9	*
Yes	613	52.5		248	49.5		204	57.2		161	60.4	
Food rations by RFSA participation status												
Did not receive any food rations	1,418	50.7	(ref.)	568	48.7	(ref.)	524	52.1	(ref.)	326	56.2	(ref.)
Received food rations - direct RFSA participant[6]	345	55.6	**	46	51.9	ns	118	52.6	ns	181	59.0	ns
Received food rations - indirect RFSA participant[7]	127	50.0	ns	58	48.3	ns	42	55.0	ns	27	58.0	ns
Nutrition trainings/meetings by RFSA participation status												
Did not participate in any nutrition trainings/meetings	1,359	50.5	(ref.)	459	48.2	(ref.)	529	51.8	(ref.)	371	55.6	(ref.)
Participated in nutrition trainings/meetings - direct RFSA participant[6]	433	54.1	†	145	50.7	ns	135	53.9	ns	153	61.6	*
Participated in nutrition trainings/meetings -indirect RFSA participant[7]	98	50.6	ns	68	49.8	ns	20	56.3	ns	10	52.9	ns
Agriculture trainings/meetings by RFSA participation status												
Did not participate in any ag trainings/meetings	1,277	50.6	(ref.)	424	48.5	(ref.)	480	50.4	(ref.)	373	55.9	(ref.)
Participated in agri. trainings and meetings - direct RFSA participant[6]	470	53.7	†	168	50.4	ns	160	56.9	†	142	61.2	*
Participated in agri. trainings/meetings -indirect RFSA participant[7]	143	49.7	ns	80	48.0	ns	44	58.1	ns	19	54.4	ns

NOTES: Sample restricted to households with data available across all covariates.

a Significance tests were performed to determine whether an association exists between the outcome indicator (FCS groups) and the disaggregate variables. Associations found to be statistically significant are indicated by level: * p<0.05, ** p<0.01, *** p<0.001; † < 0.1; ns=not significant.

1 A household is considered to access or use a financial service if at least one member accessed or used the services. For ag-related measures of use of financial services, a household is considered to have used a financial service if any farmer reported taking out an agriculture loan, participating in an agriculture saving scheme, or taking out agricultural insurance. Similarly, a household is considered to have accessed group-based savings, loans or microfinance if any member in the household participated in a community-based savings group or community based-lending or microfinance group.

2 A household is considered to raise at least one livestock if at least one farmer reported raising any of the three livestock of interest (goats, sheep, and poultry).

3 A household is considered to be using at least one improved crop management practices if at least one farmer reported using any of the promoted practices for any one of the crops of interest (sorghum, millet, cowpeas and peanuts).

4 A household is considered to be using at least one improved post-harvest practice if at least one farmer reported using any of the promoted practices for any one of the crops of interest (sorghum, millet, cowpeas and peanuts).

5 A household is considered to be using at least one improved livestock management practices if at least one farmer reported using any of the promoted practices for any one of the livestock of interest (goats, sheep, or poultry).

6 Defined as households who reported participating in the RFSA and receiving/participating in the specific intervention (e.g., food rations, nutrition trainings/meetings, ag trainings/meetings).

7 Defined as households who did not report participating in the RFSA but reported receiving/participating in the specific intervention (e.g., food rations, nutrition trainings/meetings, ag trainings/meetings).

Table 57: A7.1c. OLS regression of household food consumption score, combined RFSA areas [Baseline Study, Niger 2020]

	Module 1	Module 2	Module 3	Module 4	Module 5	Module 6
Variables	**Coef.**	**Coef.**	**Coef.**	**Coef.**	**Coef.**	**Coef.**
Household socio-demographic characteristics						
Female-headed household (ref.:male-headed)	0.43	-0.863	-0.667	-1.641	-1.05	-0.957
Age of household head (18-98 years)	0.052	0.058	0.064	0.059	0.059	0.06
Gendered household type (ref.: Male and Female Adults)						
Female adult only	-1.067	-0.251	-0.158	1.669	0.81	0.862
Male adult only	2.849	3.662	3.652	3.7	3.829	4.038
Household size (1-32)	0.07	0.056	-0.004	0.028	0.052	0.037
Household use of or access to financial services						
Took out an agricultural loan (ref.: did not take out an ag-loan)	1.076	1.301	0.795	0.992	0.739	1.076
Participated in an agricultural savings scheme (ref.: did not participate)	4.056*	3.213+	2.917	2.818	2.781	4.056*
Participated in group-based saving programs (ref.: did not participate)	5.141+	4.867	4.18	4.152	4.069	5.141+
Participated in group-based credit programs (ref.: did not participate)	5.892*	4.765*	5.430*	4.662*	4.352*	5.892*
Household livestock holdings (ref.: did not raise livestock)						
Raised goats			-0.348	-0.046	-0.148	-0.063
Raised sheep			3.501**	3.018*	2.681*	2.692*
Raised poultry			2.668*	2.699**	2.558**	2.623**
Household adoption of targeted improved crop practices[1]						
Dug zai pits				-5.376	-5.341	-5.349
Dug agri half-moons				-0.747	-0.265	-0.276
Applied organic manure				4.480**	4.491**	4.369**
Applied phosphatic manue				1.48	1.731	1.524
Applied compost				0.189	-0.201	-0.371
Applied microdoses of fertilizer				3.066	2.986	2.889
Controlled sida cordifolia growth				2.984	3.364	3.287
Performed at least 3 weedings				-1.407	-1.183	-0.997
Delayed seedlings until 3rd/4th rains to control pests				0.556	0.288	0.589
Sowed after useful rain				-0.255	-0.68	-0.98
Performed corp association				-2.639	-2.716	-2.676
Performed crop rotation				-0.716	-0.564	-0.56
Used Seed treatment w/ fungicides				1.611	1.918	2.135
Used improved seeds				-1.302	-1.467	-1.34
Used climate information				-0.832	-1.328	-1.474
Household adoption of targeted improved post-harvest handling and storage practices[1]						
Used local made storage				-0.476	-0.385	-0.428
Used sealed/airtight bags				-0.067	-0.014	0.062
Used community storage facility				4.881	4.848	4.534
Used solar/fuel-powered dryers				-4.064	-4.002	-3.853
Used seed/grain treatment pest control technique				-6.222	-6.049	-6.009
Used agrochemical grain treatment				-1.975	-2.32	-2.273
Used triple bags				6.143+	6.322+	6.225+
Household adoption of targeted improved livestock managementpractices[1]						
Used at least one improved livestock mgmt practice				-0.576	-0.295	-0.261
Household impact due to shock exposure (COVID-19)						
Household livelihood impacted by COVID-19 (ref.: household livelihood not impacted by COVID-19)					0.327	0.274
Household food security impacted by COVID-19 (ref.: household food security not impacted by COVID-19)					0.049	-0.111
Household harvested crops in current season (ref.: did not harvest any crops)						
Harvested less than 25 percent					0.839	0.515
Harvest 25 - 50 percent					-3.367	-3.621
Harvest more than 50 percent					-1.249	-1.523
Household participation in social assistance programs						
Participated in a BHA RFSA (ref.: HH did not participate in a RFSA)						1.635
Received food rations - any donor (ref.: did not receive food rations)						-0.531
Participated in nutrition trainings/meetings - any donor (ref.: did not participate)						1.805
Participated in agriculture-related trainings/meetings - any donor (ref.: did not participate)						-0.331
Constant	38.514***	34.576***	33.237***	32.803***	32.495***	32.270***
Number of households	1,909	1,909	1,909	1,909	1,909	1,909
R-squared	0.211	0.228	0.237	0.267	0.273	0.276

* p<0.05, ** p<0.01, *** p<0.001; † < 0.1NOTES: Household FCS ranges from 0 to 112. Analytical sample was restricted to households with data available across all covariates. Child only households (i.e., where there are no members 18 years or older; n=5) are excluded. All models include village dummies to control for village-level differences. Coefficients not shown. 1 Reference category includes households that did not adopt the targeted improved practice.

Table 58: A7.1d. OLS regression of household food consumption score, Girma RFSA area [Baseline Study, Niger 2020]

	Module 1	Module 2	Module 3	Module 4	Module 5	Module 6
Variables	**Coef.**	**Coef.**	**Coef.**	**Coef.**	**Coef.**	**Coef.**
Household socio-demographic characteristics						
Female-headed household (ref.:male-headed)	1.570	-0.613	-0.386	-1.879	-0.920	-0.858
Age of household head (18-98 years)	0.032	0.039	0.051	0.035	0.021	0.012
Gendered household type (ref.: Male and Female Adults)						
Female adult only	-1.649	-0.178	-0.297	1.821	0.262	0.438
Male adult only	6.291	7.330	7.122	7.365+	7.610+	7.896+
Household size (1-28)	0.047	0.029	-0.003	0.143	0.181	0.176
Household use of or access to financial services						
Took out an agricultural loan (ref.: did not take out an ag-loan)		0.069	0.362	-0.128	0.018	-0.147
Participated in an agricultural savings scheme (ref.: did not participate in ag-savings scheme)		4.777+	3.930	3.887	3.173	3.000
Participated in group-based saving programs (ref.: did not participate)		4.132	3.859	3.436	3.758	3.682
Participated in group-based credit programs (ref.: did not participate)		8.311**	7.492**	7.468***	7.052***	6.804**
Household livestock holdings (ref.: did not raise livestock)						
Raised goats			-0.982	-0.987	-1.664	-1.618
Raised sheep			3.149+	2.174	1.750	1.805
Raised poultry			2.034	2.360	2.095	1.872
Household adoption of targeted improved crop practices[1]						
Dug zai pits				-10.900+	-10.628*	-10.726*
Dug agri half-moons				-4.022	-3.748	-3.484
Applied organic manure				7.143**	7.533***	7.534**
Applied phosphatic manure				-1.118	-0.474	-0.598
Applied compost				-0.296	-0.785	-1.120
Applied microdoses of fertilizer				3.252	3.126	2.789
Controlled sida cordifolia growth				3.054	3.293+	3.368+
Performed at least 3 weedings				-1.507	-1.379	-1.006
Delayed seedlings until 3rd/4th rains to control pests				-0.088	-0.776	-0.628
Sowed after useful rain				0.064	-0.715	-1.368
Performed crop association				-2.517	-2.587	-2.425
Performed crop rotation				-7.910+	-6.888+	-6.948+
Used Seed treatment w/fungicides				2.946	3.141	3.595
Used improved seeds				-0.869	-1.248	-1.133
Used climate information				-2.180	-2.623	-3.164
Household adoption of targeted improved post-harvest handling and storage practices[1]						
Used local made storage				1.465	1.592	1.039
Used sealed/airtight bags				0.934	1.291	1.639
Used community storage facility				4.432	3.788	3.348
Used solar/fuel-powered dryers				-10.083	-10.916	-10.299
Used seed/grain treatment pest control technique				-12.014*	-12.182*	-12.197*
Used agrochemical grain treatment				-2.199	-2.063	-1.861
Used triple bags				14.168+	14.139+	13.588+
Household adoption of targeted improved livestock managementpractices[1]						
Used at least one improved livestock mgmt practice				-0.283	0.470	0.708
Household impact due to shock exposure (COVID-19)						
Household livelihood impacted by COVID-19 (ref.: household livelihood not impacted by COVID-19)					-1.278	-1.479
Household food security impacted by COVID-19 (ref.: household food security not impacted by COVID-19)					-1.697	-1.944
Household harvested crops in current season (ref.: did not harvest any crops)						
Harvested less than 25 percent					3.863	3.459
Harvest 25 - 50 percent					-0.829	-1.210
Harvest more than 50 percent					0.696	0.214
Household participation in social assistance programs						
Participated in a BHA RFSA (ref.: HH did not participate in a RFSA)						3.508*
Received food rations - any donor (ref.: did not receive food rations)						-0.147
Participated in nutrition trainings/meetings - any donor (ref.: did not participate)						1.636
Participated in agriculture-related trainings/meetings - any donor (ref.: did not participate)						-1.666
Constant	39.085***	34.737***	33.736***	33.762***	33.809***	33.930***
Number of households	679.000	679.000	679.000	679.000	679.000	679.000
R-squared	0.196	0.225	0.232	0.308	0.318	0.325

* p<0.05, ** p<0.01, *** p<0.001; † < 0.1NOTES: Household FCS ranges from 0 to 112. Analytical sample was restricted to households with data available across all covariates. Child only households (i.e., where there are no members 18 years or older; n=5) are excluded. All models include village dummies. Coefficients not shown. [1] Reference category refers to households that did not adopt the targeted improved practice.

Table 59: A7.1e. OLS regression of household food consumption score, Hamzari RFSA area [Baseline Study, Niger 2020]

	Module 1	Module 2	Module 3	Module 4	Module 5	Module 6
Variables	**Coef.**	**Coef.**	**Coef.**	**Coef.**	**Coef.**	**Coef.**
Household socio-demographic characteristics						
Female-headed household (ref.: male-headed)	2.273	3.173	3.764	2.012	1.775	2.098
Age of household head (18-98 years)	-0.017	-0.022	-0.017	-0.04	-0.04	-0.046
Gendered household type (ref.: Male and Female Adults)						
Female adult only	-0.845	-1.385	-0.936	-1.705	-1.211	-1.446
Male adult only	-1.433	-1.378	-1.461	-4.161	-4	-3.629
Household size (1-32)	0.017	0.034	-0.08	-0.15	-0.138	-0.175
Household use of or access to financial services						
Took out an agricultural loan (ref.: did not take out an ag-loan)		2.053	1.509	-0.298	-0.39	-0.687
Participated in an agricultural savings scheme (ref.: did not participate)		7.730*	8.058**	9.466**	9.752**	9.445**
Participated in group-based saving programs (ref.: did not participate)		13.602*	13.560+	9.576+	9.590+	10.221+
Participated in group-based credit programs (ref.: did not participate)		-9.782	-10.888	-5.496	-5.824	-7.384
Household livestock holdings (ref.: did not raise livestock)						
Raised goats			-1.621	-1.435	-1.589	-1.653
Raised sheep			5.443*	5.333*	5.332*	5.428*
Raised poultry			1.7	0.185	0.289	-0.008
Household adoption of targeted improved crop practices[1]						
Dug zai pits				2.869	2.57	2.932
Dug agri half-moons				2.722	2.945	2.481
Applied organic manure				2.121	2.267	2.331
Applied phosphatic manure				6.719**	6.649**	6.797**
Applied compost				2.457	3.101	2.58
Applied microdoses of fertilizer				2.617	2.75	2.899
Controlled sida cordifolia growth				2.054	1.789	1.807
Performed at least 3 weedings				-4.317	-3.914	-4.269
Delayed seedlings until 3rd/4th rains to control pests				1.259	1.406	2.045
Sowed after useful rain				-0.517	-0.861	-0.435
Performed crop association				-3.696	-3.332	-3.456
Performed crop rotation				7.410**	6.895**	6.297*
Used Seed treatment w/fungicides				-1.166	-1.111	-0.735
Used improved seeds				-1.19	-1.462	-1.149
Used climate information				1.341	1.094	1.131
Household adoption of targeted improved post-harvest handling and storage practices[1]						
Used local made storage				-6.612**	-6.225**	-6.734**
Used sealed/airtight bags				-0.148	0.151	0.123
Used community storage facility				2.272	2.663	1.922
Used solar/fuel-powered dryers				0.499	-0.095	-0.133
Used seed/grain treatment pest control technique				0.608	0.262	-0.585
Used agrochemical grain treatment				3.661	3.798	2.939
Used triple bags				1.445	1.193	1.172
Household adoption of targeted improved livestock managementpractices[1]						
Used at least one improved livestock mgmt practice				2.203	2.117	1.797
Household impact due to shock exposure (COVID-19)						
Household livelihood impacted by COVID-19 (ref.: household livelihood not impacted by COVID-19)					0.226	0.794
Household food security impacted by COVID-19 (ref.: household food security not impacted by COVID-19)					3.297	2.667
Household harvested crops in current season (ref.: did not harvest any crops)						
Harvested less than 25 percent					-1.726	-1.553
Harvest 25 - 50 percent					-2.912	-2.538
Harvest more than 50 percent					-3.454	-3.043
Household participation in social assistance programs						
Participated in a BHA RFSA (ref.: HH did not participate in a RFSA)						-0.009
Received food rations - any donor (ref.: did not receive food rations)						3.363
Participated in nutrition trainings/meetings - any donor (ref.: did not participate)						-0.227
Participated in agriculture-related trainings/meetings - any donor (ref.: did not participate)						2.949
Constant	55.854***	53.024***	52.038***	52.888***	51.319***	49.735***
Number of households	688	688	688	688	688	688
R-squared	0.216	0.242	0.254	0.328	0.331	0.337

* p<0.05, ** p<0.01, *** p<0.001; † < 0.1NOTES: Household FCS ranges from 0 to 112. Analytical sample was restricted to households with data available across all covariates. Child only households (i.e., where there are no members 18 years or older; n=5) are excluded. All models Includes village dummies. Coefficients not shown. [1] Reference category refers to households that did not adopt the targeted improved practice.

Table 60: A7.1f. OLS regression of household food consumption score, Wadata RFSA area [Baseline Study, Niger 2020]

	Module 1	Module 2	Module 3	Module 4	Module 5	Module 6
Variables	**Coef.**	**Coef.**	**Coef.**	**Coef.**	**Coef.**	**Coef.**
Household socio-demographic characteristics						
Female-headed household (ref.:male-headed)	-3.538	-3.877	-4.175	-4.216	-2.703	-3.381
Age of household head (18-98 years)	0.151*	0.162*	0.144*	0.153*	0.155*	0.155*
Gendered household type (ref.: Male and Female Adults)						
Female adult only	1.196	0.916	1.843	0.799	-1.013	-0.345
Male adult only	-0.807	-0.153	0.855	0.51	0.373	0.352
Household size (1-22)	0.49	0.532	0.464	0.384	0.349	0.342
Household use of or access to financial services						
Took out an agricultural loan (ref.: did not take out an ag-loan)		4.176	4.388+	5.792*	4.862+	4.888*
Participated in an agricultural savings scheme (ref.: did not participate in ag-savings scheme)		0.346	0.126	1.433	1.983	1.995
Participated in group-based saving programs (ref.: did not participate)		11.223*	10.315*	12.474*	13.329**	12.750*
Participated in group-based credit programs (ref.: did not participate)		-4.394	-6.574	-10.849+	-11.739+	-11.067
Household livestock holdings (ref.: did not raise livestock)						
Raised goats			2.34	4.164+	4.671+	4.523+
Raised sheep			3.297+	4.454+	4.888*	4.931*
Raised poultry			4.133+	4.422*	4.170+	4.365+
Household adoption of targeted improved crop practices[1]						
Dug zai pits				-3.358	-3.367	-3.248
Dug agri half-moons				13.48	14.16	14.785
Applied organic manure				0.831	0.64	0.564
Applied phosphatic manure				0.257	1.265	1.1
Applied compost				-1.573	-2.798	-3.187
Applied microdoses of fertilizer				-5.004	-5.81	-5.552
Controlled sida cordifolia growth				-6.235	-7.08	-7.061
Performed at least 3 weedings				9.029**	8.902**	8.286*
Delayed seedlings until 3rd/4th rains to control pests				-10.815	-11.716+	-11.418+
Sowed after useful rain				-3.546	-4.817*	-4.879*
Performed crop association				-3.357	-2.355	-1.979
Performed crop rotation				-11.007	-11.842+	-11.766
Used Seed treatment w/fungicides				-1.221	-1.201	-1.293
Used improved seeds				1.115	0.594	0.333
Used climate information				-	-	-
Household adoption of targeted improved post-harvest handling and storage practices[1]						
Used local made storage				2.112	1.498	1.453
Used sealed/airtight bags				-3.998+	-3.949*	-3.844+
Used community storage facility				0.434	2.438	2.505
Used solar/fuel-powered dryers				5.381	4.937	4.981
Used seed/grain treatment pest control technique				0.909	2.055	2.19
Used agrochemical grain treatment				-14.561	-14.901	-15.109
Used triple bags				3.727	4.515	4.787+
Household adoption of targeted improved livestock managementpractices[1]						
Used at least one improved livestock mgmt practice				-1.624	-2.124	-1.932
Household impact due to shock exposure (COVID-19)						
Household livelihood impacted by COVID-19 (ref.: household livelihood not impacted by COVID-19)					-0.066	0.084
Household food security impacted by COVID-19 (ref.: household food security not impacted by COVID-19)					4.782	4.564
Household harvested crops in current season (ref.: did not harvest any crops)						
Harvested less than 25 percent					-1.115	-1.334
Harvest 25 - 50 percent					-4.809	-4.949
Harvest more than 50 percent					-3.803	-3.775
Household participation in social assistance programs						
Participated in a BHA RFSA (ref.: HH did not participate in a RFSA)						-0.153
Received food rations - any donor (ref.: did not receive food rations)						-2.214
Participated in nutrition trainings/meetings - any donor (ref.: did not participate)						1.442
Participated in agriculture-related trainings/meetings - any donor (ref.: did not participate)						0.189
Constant	54.412***	52.825***	52.034***	53.463***	50.878***	51.513***
Number of households	542	542	542	542	542	542
R-squared	0.174	0.184	0.205	0.257	0.27	0.271

* p<0.05, ** p<0.01, *** p<0.001; † < 0.1NOTES: Household FCS ranges from 0 to 112. Analytical sample was restricted to households with data available across all covariates. Child only households (i.e., where there are no members 18 years or older; n=5) are excluded. All models include village dummies to control. Coefficients not shown. 1 Reference category includes households that did not adopt the targeted improved practice.

Table 61: A7.2. Percentage of sorghum farmers applying targeted improved crop and post-harvest practices by use of agricultural-related financial services [Baseline Study, Niger 2020]

	All farmers	Used any agri. financial services			Obtained agri-credit			Participated in agri-saving schemes		
	%	Yes	No	Sig.a	Yes	No	Sig.a	Yes	No	Sig.a
Improved crop management practices										
Use of improved seeds	7.7	6.8	8.2	ns	7.9	7.6	ns	6.2	8.0	ns
Control of sida cordifolia growth	12.2	14.2	11.1	ns	9.7	12.9	ns	17.5	11.1	ns
Crop association	49.0	41.4	53.2	**	43.5	50.5	ns	37.2	51.5	*
Crop rotation	1.6	1.2	1.9	ns	1.7	1.6	ns	0.3	1.9	*
Sowing after useful rain	33.8	36.1	32.5	ns	42.1	31.4	ns	29.7	34.7	ns
Farmer managed natural regeneration (fmnr)	37.4	32.2	40.3	ns	20.3	42.2	***	43.0	36.2	ns
Delimitation of animal corridors and pasture areas	35.2	35.6	34.9	ns	42.4	33.1	ns	27.4	36.8	ns
Protection of ponds against silting up	6.9	6.2	7.2	ns	7.8	6.6	ns	5.9	7.1	ns
Functional community-based conflict management mechanisms	3.7	2.4	4.4	ns	2.9	3.9	ns	1.7	4.1	ns
Delay of seedlings until third or fourth rains to control pests	5.9	4.7	6.7	ns	4.1	6.5	ns	4.4	6.3	ns
Seed treatment with fungicides	5.1	3.9	5.7	ns	3.2	5.6	*	4.9	5.1	ns
Zai pits	6.1	7.3	5.4	ns	7.9	5.6	ns	7.9	5.7	ns
Organic manure	64.4	69.8	61.4	ns	67.7	63.5	ns	74.5	62.2	*
Phosphatic manure	8.4	12.0	6.4	*	8.9	8.2	ns	15.5	6.8	**
Compost	23.7	20.2	25.7	ns	16.3	25.9	ns	26.8	23.1	ns
Microdoses of fertilizer	2.9	3.6	2.5	ns	4.4	2.5	ns	2.4	3.0	ns
Agricultural half-moons	1.4	1.6	1.3	ns	2.3	1.1	ns	1.8	1.3	ns
Use of climate information (rain forecast, disaster risks, etc.)	0.9	0.6	1.0	ns	0.7	0.9	ns	0.3	1.0	ns
Performing at least three weedings	30.4	29.1	31.1	ns	27.1	31.3	ns	31.1	30.2	ns
Number of responding sorghum farmers	2,203	1,492	711		1,727	476		1,880	323	
Improved post-harvest practices										
Locally made storage structures such as sheet metal silos	13.2	9.0	15.6	***	10.0	14.1	ns	6.7	14.6	**
Sealed/airtight bags	4.7	5.4	4.3	ns	5.1	4.6	ns	7.0	4.2	ns
Community storage facilities, including warehouse receipting	3.3	2.4	3.9	ns	2.6	3.5	ns	1.3	3.8	*
Use of solar or fuel-powered dryers to reduce post-harvest moisture	0.2	0.2	0.1	ns	0.3	0.1	ns	0.1	0.2	ns
Seed or grain treatment techniques (e.g., botanical pest control agents or phytosanitary irradiation)	0.3	0.4	0.3	ns	0.1	0.4	ns	0.9	0.2	ns
Grain treatment with agro-chemicals	0.7	1.0	0.5	ns	0.7	0.7	ns	2.1	0.4	***
Triple bags for cowpea grain preservation	0.5	0.2	0.7	ns	0.2	0.6	ns	0.2	0.6	ns
Other post-harvest practices that reduce pre-storage losses	2.6	2.1	2.9	ns	3.0	2.5	ns	2.0	2.7	ns
Number of responding sorghum farmers	1,905	632	1,273		434	1,471		283	1,622	
Improved crop management practices										
Use of improved seeds	8.7	5.5	10.9	*	5.6	9.7	ns	6.0	9.4	ns
Control of sida cordifolia growth	14.2	16.4	12.6	ns	9.3	15.8	ns	22.1	12.0	**
Crop association	48.6	39.7	54.9	*	40.2	51.4	ns	36.5	51.8	ns
Crop rotation	1.4	0.7	2.0	ns	1.2	1.5	ns	0.0	1.8	ns
Sowing after useful rain	37.1	34.3	39.0	ns	40.0	36.1	ns	27.1	39.7	ns
Farmer managed natural regeneration (fmnr)	42.4	32.4	49.6	**	18.8	50.3	***	43.5	42.2	ns
Delimitation of animal corridors and pasture areas	38.8	35.8	40.9	ns	43.3	37.3	ns	25.1	42.4	*
Protection of ponds against silting up	5.8	3.3	7.6	*	5.5	5.9	ns	2.7	6.6	ns
Functional community-based conflict management mechanisms	4.6	2.3	6.3	ns	2.7	5.3	ns	1.5	5.5	ns
Delay of seedlings until third or fourth rains to control pests	7.0	5.3	8.3	ns	4.3	7.9	ns	5.6	7.4	ns
Seed treatment with fungicides	1.8	1.4	2.0	ns	1.1	2.0	ns	2.2	1.7	ns
Zai pits	6.0	7.6	4.8	*	7.9	5.3	ns	9.0	5.2	ns
Organic manure	65.4	72.3	60.5	ns	68.8	64.3	ns	79.1	61.8	*
Phosphatic manure	8.4	12.8	5.2	*	8.6	8.3	ns	17.2	6.1	**
Compost	27.6	21.8	31.8	ns	16.3	31.4	ns	31.3	26.7	ns
Microdoses of fertilizer	2.8	3.2	2.5	ns	4.1	2.4	ns	1.7	3.1	ns
Agricultural half-moons	1.5	1.5	1.4	ns	2.6	1.1	ns	1.9	1.4	ns

	All farmers	Used any agri. financial services			Obtained agri-credit			Participated in agri-saving schemes		
	%	Yes	No	Sig.a	Yes	No	Sig.a	Yes	No	Sig.a
Use of climate information (rain forecast, disaster risks, etc.)	0.8	0.6	1.0	ns	0.9	0.8	ns	0.0	1.0	ns
Performing at least three weedings	35.8	30.7	39.5	*	27.0	38.8	ns	34.3	36.2	ns
Number of responding sorghum farmers	785	327	458		224	561		138	647	
Improved post-harvest practices										
Locally made storage structures such as sheet metal silos	2.4	1.4	3.1	ns	1.5	2.7	ns	1.3	2.7	ns
Sealed/airtight bags	3.0	4.0	2.3	ns	4.3	2.6	ns	5.0	2.5	ns
Community storage facilities, including warehouse receipting	3.1	1.4	4.4	ns	1.0	3.9	ns	0.4	3.8	*
Use of solar or fuel-powered dryers to reduce post-harvest moisture	0.1	0.2	0.0	ns	0.3	0.0	ns	0.0	0.1	ns
Seed or grain treatment techniques (e.g., botanical pest control agents or phytosanitary irradiation)	0.5	0.6	0.4	ns	0.2	0.6	ns	1.2	0.3	ns
Grain treatment with agro-chemicals	0.9	1.3	0.5	ns	1.0	0.8	ns	2.7	0.4	***
Triple bags for cowpea grain preservation	0.0	...	...		...	...		...	...	
Other post-harvest practices that reduce pre-storage losses	3.0	1.7	3.9	ns	2.8	3.0	ns	1.2	3.4	ns
Number of responding sorghum farmers who stored their harvest	753	316	437		221	532		131	622	
Improved crop management practices										
Use of improved seeds	12.6	23.5	9.2	***	25.8	9.4	***	20.7	12.0	ns
Control of sida cordifolia growth	18.9	19.9	18.6	ns	20.8	18.5	ns	13.8	19.3	ns
Crop association	74.1	73.9	74.2	ns	79.6	72.8	ns	70.4	74.5	ns
Crop rotation	3.6	3.9	3.5	ns	4.5	3.4	ns	1.9	3.7	ns
Sowing after useful rain	39.4	52.7	35.3	*	52.5	36.3	ns	57.3	38.0	ns
Farmer managed natural regeneration (fmnr)	19.3	23.5	18.0	ns	22.3	18.6	ns	26.6	18.7	ns
Delimitation of animal corridors and pasture areas	33.3	41.0	30.9	ns	39.9	31.8	ns	62.5	31.0	***
Protection of ponds against silting up	9.5	6.5	10.4	ns	5.6	10.4	ns	7.1	9.7	ns
Functional community-based conflict management mechanisms	2.7	4.8	2.0	ns	4.8	2.1	ns	3.0	2.6	ns
Delay of seedlings until third or fourth rains to control pests	8.9	6.3	9.7	ns	6.2	9.5	ns	4.1	9.3	ns
Seed treatment with fungicides	13.5	12.6	13.8	ns	12.9	13.7	ns	11.0	13.7	ns
Zai pits	12.2	12.1	12.2	ns	13.2	11.9	ns	10.5	12.3	ns
Organic manure	66.0	59.2	68.2	ns	56.3	68.4	ns	61.3	66.4	ns
Phosphatic manure	9.9	11.8	9.2	ns	12.7	9.2	ns	11.8	9.7	ns
Compost	29.1	26.4	29.9	ns	28.2	29.3	ns	17.9	30.0	ns
Microdoses of fertilizer	5.4	6.8	5.0	ns	6.4	5.2	ns	11.1	5.0	*
Agricultural half-moons	2.0	1.7	2.1	ns	2.1	2.0	ns	1.3	2.1	ns
Use of climate information (rain forecast, disaster risks, etc.)	2.0	1.5	2.2	ns	0.4	2.4	*	4.0	1.9	ns
Performing at least three weedings	34.2	44.6	31.0	*	45.5	31.5	ns	44.8	33.4	ns
Number of responding sorghum farmers	822	203	619		155	667		75	747	
Improved post-harvest practices										
Locally made storage structures such as sheet metal silos	37.1	40.3	36.1	ns	45.6	35.0	ns	18.0	38.8	**
Sealed/airtight bags	10.0	11.5	9.5	ns	9.2	10.2	ns	18.6	9.3	*
Community storage facilities, including warehouse receipting	3.6	7.5	2.3	ns	8.5	2.3	ns	11.6	2.9	*
Use of solar or fuel-powered dryers to reduce post-harvest moisture	0.3	0.7	0.2	***	0.4	0.3	ns	1.2	0.2	*
Seed or grain treatment techniques (e.g., botanical pest control agents or phytosanitary irradiation)	0.0	...	...		...	...		...	...	
Grain treatment with agro-chemicals	0.7	0.0	1.0	ns	0.0	0.9	ns	0.0	0.8	ns
Triple bags for cowpea grain preservation	0.4	0.1	0.5	ns	0.1	0.5	ns	0.0	0.5	ns
Other post-harvest practices that reduce pre-storage losses	3.6	6.2	2.7	ns	6.4	2.9	ns	11.8	2.9	ns
Number of responding sorghum farmers who stored their harvest	683	173	510		134	549		66	617	
Improved crop management practices										
Use of improved seeds	0.6	1.1	0.4	ns	0.3	0.6	ns	1.6	0.4	ns

	All farmers	Used any agri. financial services			Obtained agri-credit			Participated in agri-saving schemes		
	%	Yes	No	Sig.a	Yes	No	Sig.a	Yes	No	Sig.a
Control of sida cordifolia growth	0.5	0.3	0.6	ns	0.0	0.6	ns	0.6	0.5	ns
Crop association	28.9	25.8	30.2	ns	21.3	30.3	ns	27.9	29.2	ns
Crop rotation	0.5	1.3	0.2	ns	1.1	0.4	ns	1.1	0.4	ns
Sowing after useful rain	19.0	32.1	13.9	***	42.0	14.9	***	29.7	16.9	ns
Farmer managed natural regeneration (fmnr)	36.8	37.5	36.5	ns	26.4	38.6	ns	47.3	34.7	ns
Delimitation of animal corridors and pasture areas	25.5	31.0	23.4	ns	40.4	22.9	*	22.9	26.0	ns
Protection of ponds against silting up	7.9	19.5	3.5	***	22.3	5.4	***	17.8	6.0	**
Functional community-based conflict management mechanisms	1.7	1.3	1.8	ns	2.0	1.6	ns	1.8	1.7	ns
Delay of seedlings until third or fourth rains to control pests	0.2	0.6	0.0	ns	1.1	0.0	*	0.0	0.2	ns
Seed treatment with fungicides	8.2	9.2	7.8	ns	3.8	9.0	ns	13.2	7.2	ns
Zai pits	1.5	2.5	1.1	ns	1.7	1.5	ns	2.7	1.3	ns
Organic manure	59.9	65.5	57.7	ns	74.5	57.3	ns	61.1	59.6	ns
Phosphatic manure	7.0	8.2	6.6	ns	5.9	7.2	ns	9.9	6.5	ns
Compost	7.2	8.3	6.8	ns	3.2	7.9	ns	12.5	6.2	ns
Microdoses of fertilizer	1.2	3.0	0.5	*	3.5	0.8	ns	1.9	1.1	ns
Agricultural half-moons	0.5	1.7	0.1	***	1.5	0.4	ns	1.6	0.3	ns
Use of climate information (rain forecast, disaster risks, etc.)	10.3	10.9	10.1	ns	7.6	10.8	ns	13.5	9.7	ns
Performing at least three weedings										
Number of responding sorghum farmers	596	181	415		97	499		110	486	
Improved post-harvest practices										
Locally made storage structures such as sheet metal silos	32.3	27.5	34.1	ns	22.9	34.0	ns	27.6	33.2	ns
Sealed/airtight bags	6.4	8.9	5.5	ns	5.9	6.5	ns	11.4	5.5	ns
Community storage facilities, including warehouse receipting	3.8	4.1	3.7	ns	6.4	3.3	ns	0.9	4.3	ns
Use of solar or fuel-powered dryers to reduce post-harvest moisture	0.4	0.0	0.5	ns	0.0	0.4	ns	0.0	0.5	ns
Seed or grain treatment techniques (e.g., botanical pest control agents or phytosanitary irradiation)	0.0	…	…		…	…		…	…	
Grain treatment with agro-chemicals	0.0	…	…		…	…		…	…	
Triple bags for cowpea grain preservation	2.6	1.8	3.0	ns	1.8	2.8	ns	1.3	2.9	ns
Other post-harvest practices that reduce pre-storage losses	0.3	1.0	0.0	*	0.0	0.3	ns	1.8	0.0	**
Number of responding sorghum farmers who stored their harvest	469	143	326		79	390		86	383	

NOTES:

[a] Significance tests were performed to determine whether an association exists between the outcome indicator (use of targeted improved practice) and the disaggregate variables. Associations found to be statistically significant are indicated by level: * p<0.05, ** p<0.01, *** p<0.001; ns=not significant.

Table 62: A7.3. Percentage of millet farmers applying targeted improved crop management and post-harvest handling and storage practices by use of agricultural-related financial services [Baseline Study, Niger 2020]

	All farmers	Used any agri. financial services			Obtained agri-credit			Participated in agri-saving schemes		
	%	Yes	No	Sig.a	Yes	No	Sig.a	Yes	No	Sig.aq
Improved crop management practices										
Use of improved seeds	7.6	6.4	8.2	ns	6.9	7.8	ns	6.6	7.8	ns
Control of sida cordifolia growth	12.7	14.6	11.7	ns	11.3	13.1	ns	16.3	12.0	ns
Crop association	49.0	42.0	52.9	**	44.4	50.3	ns	38.6	51.3	ns
Crop rotation	2.4	2.1	2.5	ns	3.1	2.2	ns	0.7	2.7	**
Sowing after useful rain	34.4	37.4	32.8	ns	44.7	31.7	*	30.3	35.3	ns
Farmer managed natural regeneration (fmnr)	37.2	33.2	39.4	ns	21.3	41.4	***	44.1	35.7	ns
Delimitation of animal corridors and pasture areas	33.1	34.0	32.6	ns	40.4	31.2	ns	26.1	34.6	ns
Protection of ponds against silting up	6.4	5.7	6.8	ns	7.8	6.1	ns	4.7	6.8	ns
Functional community-based conflict management mechanisms	3.4	2.1	4.1	ns	2.7	3.6	ns	1.4	3.8	ns
Delay of seedlings until third or fourth rains to control pests	5.1	3.8	5.8	ns	2.0	5.9	**	5.2	5.1	ns
Seed treatment with fungicides	5.0	4.6	5.2	ns	3.1	5.5	ns	6.2	4.7	ns
Zai pits	5.8	7.5	4.9	*	9.0	5.0	*	6.5	5.7	ns
Organic manure	60.5	67.0	56.9	*	66.5	58.9	ns	70.7	58.3	*
Phosphatic manure	9.5	14.2	6.9	***	12.1	8.8	ns	16.1	8.1	**
Compost	24.9	22.1	26.4	ns	19.4	26.4	ns	25.7	24.7	ns
Microdoses of fertilizer	2.9	4.0	2.2	*	5.8	2.1	**	2.1	3.0	ns
Agricultural half-moons	1.2	1.6	1.0	ns	1.7	1.1	ns	2.5	0.9	ns
Use of climate information (rain forecast, disaster risks, etc.)	0.7	0.9	0.5	ns	0.6	0.7	ns	1.1	0.6	ns
Performing at least three weedings	30.9	31.4	30.7	ns	30.1	31.1	ns	33.0	30.5	ns
Number of responding millet farmers	2,663	845	1,818		560	2,103		379	2,284	
Improved post-harvest practices										
Locally made storage structures such as sheet metal silos	15.1	12.2	16.7	ns	14.8	15.2	ns	8.2	16.5	**
Sealed/airtight bags	3.8	4.4	3.5	ns	5.5	3.4	ns	4.0	3.8	ns
Community storage facilities, including warehouse receipting	6.0	4.4	6.8	ns	5.6	6.1	ns	2.1	6.8	*
Use of solar or fuel-powered dryers to reduce post-harvest moisture	0.4	0.6	0.4	ns	0.9	0.3	ns	0.1	0.5	*
Seed or grain treatment techniques (e.g., botanical pest control agents or phytosanitary irradiation)	0.2	0.1	0.2	ns	0.2	0.2	ns	0.3	0.2	ns
Grain treatment with agro-chemicals	0.7	0.5	0.8	ns	0.9	0.7	ns	0.9	0.7	ns
Triple bags for cowpea grain preservation	0.8	0.8	0.8	ns	1.1	0.7	ns	0.6	0.9	ns
Other post-harvest practices that reduce pre-storage losses	3.1	2.1	3.7	ns	3.0	3.2	ns	2.0	3.4	ns
Number of responding millet farmers who stored their harvest	2,517	808	1,709		542	1,975		357	2,160	
Improved crop management practices										
Use of improved seeds	8.6	5.3	10.9	**	4.0	10.0	*	6.9	9.1	ns
Control of sida cordifolia growth	14.5	15.6	13.8	ns	9.4	16.0	ns	19.9	13.0	ns
Crop association	48.2	39.8	53.9	*	40.9	50.4	ns	37.2	51.2	ns
Crop rotation	1.4	0.4	2.1	ns	0.7	1.6	ns	0.0	1.8	ns
Sowing after useful rain	36.6	35.2	37.5	ns	41.1	35.2	ns	29.0	38.6	ns
Farmer managed natural regeneration (fmnr)	42.9	34.6	48.4	*	20.7	49.4	***	45.1	42.3	ns
Delimitation of animal corridors and pasture areas	36.5	34.9	37.6	ns	43.1	34.6	ns	24.3	39.8	ns
Protection of ponds against silting up	5.4	3.4	6.7	*	6.0	5.2	ns	2.2	6.2	ns
Functional community-based conflict management mechanisms	4.3	2.0	5.9	ns	2.6	4.9	ns	1.3	5.2	ns
Delay of seedlings until third or fourth rains to control pests	5.9	4.4	7.0	ns	1.5	7.2	**	6.5	5.8	ns
Seed treatment with fungicides	2.1	2.3	2.0	ns	1.1	2.4	ns	3.6	1.7	ns
Zai pits	5.1	6.8	3.9	*	7.7	4.3	ns	7.1	4.6	ns
Organic manure	61.1	69.9	55.2	*	68.9	58.8	ns	74.4	57.5	*
Phosphatic manure	8.8	13.5	5.6	*	10.0	8.4	ns	17.1	6.6	**
Compost	27.3	21.8	31.0	ns	16.0	30.6	*	29.5	26.7	ns

	All farmers	Used any agri. financial services			Obtained agri-credit			Participated in agri-saving schemes		
	%	Yes	No	Sig.a	Yes	No	Sig.a	Yes	No	Sig.aq
Microdoses of fertilizer	2.3	3.1	1.8	ns	4.7	1.6	ns	1.7	2.5	ns
Agricultural half-moons	1.3	1.6	1.1	ns	1.8	1.2	ns	2.8	0.9	ns
Use of climate information (rain forecast, disaster risks, etc.)	0.7	1.1	0.4	ns	0.8	0.6	ns	1.2	0.6	ns
Performing at least three weedings	35.1	31.8	37.3	ns	28.5	37.0	ns	35.7	34.9	ns
Number of responding millet farmers	968	378	590		245	723		168	800	
Improved post-harvest practices										
Locally made storage structures such as sheet metal silos	3.7	3.8	3.7	ns	4.1	3.6	ns	2.9	4.0	ns
Sealed/airtight bags	2.0	2.3	1.8	ns	3.3	1.6	ns	2.2	1.9	ns
Community storage facilities, including warehouse receipting	6.6	2.8	9.0	**	3.2	7.6	ns	0.9	8.0	*
Use of solar or fuel-powered dryers to reduce post-harvest moisture	0.5	0.6	0.5	ns	1.1	0.4	ns	0.0	0.7	ns
Seed or grain treatment techniques (e.g., botanical pest control agents or phytosanitary irradiation)	0.2	0.1	0.3	ns	0.1	0.3	ns	0.2	0.3	ns
Grain treatment with agro-chemicals	0.9	0.5	1.2	ns	0.9	0.9	ns	1.0	0.9	ns
Triple bags for cowpea grain preservation	0.1	0.1	0.1	**	0.0	0.1	ns	0.3	0.1	***
Other post-harvest practices that reduce pre-storage losses	3.9	1.8	5.3	*	2.3	4.4	ns	2.1	4.4	ns
Number of responding millet farmers who stored their harvest	954	374	580		245	709		164	790	
Improved crop management practices										
Use of improved seeds	11.7	18.9	9.1	**	21.5	8.9	***	15.9	11.3	ns
Control of sida cordifolia growth	18.9	23.9	17.1	ns	25.8	17.0	ns	14.8	19.2	ns
Crop association	68.7	66.9	69.3	ns	70.6	68.2	ns	68.9	68.7	ns
Crop rotation	7.1	11.2	5.6	*	12.3	5.6	*	3.5	7.4	ns
Sowing after useful rain	41.6	56.0	36.5	**	58.1	37.0	**	53.3	40.7	ns
Farmer managed natural regeneration (fmnr)	18.7	18.8	18.6	ns	17.6	19.0	ns	24.9	18.2	ns
Delimitation of animal corridors and pasture areas	30.4	32.3	29.7	ns	29.9	30.5	ns	55.4	28.4	***
Protection of ponds against silting up	8.4	4.6	9.7	*	3.9	9.7	*	5.9	8.6	ns
Functional community-based conflict management mechanisms	2.2	2.9	2.0	ns	2.7	2.1	ns	2.4	2.2	ns
Delay of seedlings until third or fourth rains to control pests	7.5	4.5	8.5	ns	4.9	8.2	ns	3.4	7.8	ns
Seed treatment with fungicides	11.3	10.0	11.8	ns	9.8	11.8	ns	12.1	11.3	ns
Zai pits	12.8	15.9	11.6	ns	17.5	11.4	ns	9.6	13.0	ns
Organic manure	61.5	52.7	64.7	ns	51.0	64.5	*	59.1	61.7	ns
Phosphatic manure	14.5	23.5	11.3	***	25.4	11.4	***	14.7	14.5	ns
Compost	34.3	38.9	32.7	ns	42.5	32.0	ns	18.6	35.6	**
Microdoses of fertilizer	6.9	11.7	5.2	**	12.0	5.5	**	10.1	6.7	ns
Agricultural half-moons	1.9	2.5	1.8	ns	2.6	1.8	ns	2.1	1.9	ns
Use of climate information (rain forecast, disaster risks, etc.)	1.3	1.0	1.4	ns	0.2	1.6	*	3.1	1.2	ns
Performing at least three weedings	36.2	47.8	32.1	**	49.5	32.5	*	42.8	35.7	ns
Number of responding millet farmers	1,018	269	749		210	808		90	928	
Improved post-harvest practices										
Locally made storage structures such as sheet metal silos	40.5	45.9	38.6	ns	51.4	37.4	ns	24.9	41.8	*
Sealed/airtight bags	7.7	12.2	6.0	*	10.3	6.9	ns	19.7	6.7	**
Community storage facilities, including warehouse receipting	5.5	10.3	3.8	ns	11.5	3.8	*	8.6	5.3	ns
Use of solar or fuel-powered dryers to reduce post-harvest moisture	0.5	0.9	0.4	ns	0.8	0.5	ns	1.1	0.5	ns
Seed or grain treatment techniques (e.g., botanical pest control agents or phytosanitary irradiation)	0.3	0.6	0.2	ns	0.7	0.2	ns	2.1	0.2	*
Grain treatment with agro-chemicals	0.7	1.1	0.5	ns	1.3	0.5	ns	2.6	0.5	ns
Triple bags for cowpea grain preservation	1.2	3.9	0.3	***	4.7	0.2	***	4.5	1.0	ns
Other post-harvest practices that reduce pre-storage losses	3.2	5.8	2.3	ns	6.9	2.2	*	4.4	3.1	ns
Number of responding millet farmers who stored their harvest	973	257	716		201	772		85	888	

	All farmers	Used any agri. financial services			Obtained agri-credit			Participated in agri-saving schemes		
	%	Yes	No	Sig.a	Yes	No	Sig.a	Yes	No	Sig.aq
Improved crop management practices										
Use of improved seeds	0.3	0.5	0.2	***	1.0	0.2	***	0.9	0.2	***
Control of sida cordifolia growth	1.1	1.0	1.1	ns	0.0	1.2	ns	1.6	1.0	ns
Crop association	33.0	29.5	34.3	ns	24.0	34.5	ns	31.4	33.3	ns
Crop rotation	1.2	2.1	0.8	ns	2.1	1.0	ns	2.5	0.9	ns
Sowing after useful rain	20.3	31.0	16.4	**	43.9	16.4	***	25.6	19.3	ns
Farmer managed natural regeneration (fmnr)	36.0	39.7	34.6	ns	29.5	37.1	ns	48.3	33.6	ns
Delimitation of animal corridors and pasture areas	24.5	31.0	22.2	ns	42.2	21.6	*	21.2	25.2	ns
Protection of ponds against silting up	8.0	18.3	4.2	***	23.2	5.5	***	14.9	6.6	*
Functional community-based conflict management mechanisms	1.4	1.9	1.3	ns	3.3	1.1	ns	1.7	1.4	ns
Delay of seedlings until third or fourth rains to control pests	0.0	...	...		...	...		...	...	
Seed treatment with fungicides	8.3	10.7	7.4	ns	3.3	9.1	ns	15.0	7.0	*
Zai pits	1.7	3.0	1.2	**	3.0	1.5	ns	2.4	1.6	ns
Organic manure	57.5	66.3	54.2	ns	76.5	54.3	*	59.9	57.0	ns
Phosphatic manure	7.1	8.9	6.4	ns	3.3	7.7	ns	12.5	6.0	ns
Compost	8.0	7.9	8.0	ns	3.3	8.7	ns	11.9	7.2	ns
Microdoses of fertilizer	0.8	1.3	0.6	ns	1.9	0.6	ns	0.5	0.9	ns
Agricultural half-moons	0.3	0.8	0.1	*	0.0	0.3	ns	1.4	0.0	***
Use of climate information (rain forecast, disaster risks, etc.)	0.0	...	...		...	...		...	...	
Performing at least three weedings	12.2	14.2	11.4	ns	10.1	12.5	ns	17.2	11.2	ns
Number of responding millet farmers	677	198	479		105	572		121	556	
Improved post-harvest practices										
Locally made storage structures such as sheet metal silos	30.4	23.7	32.9	*	18.7	32.4	*	25.6	31.3	ns
Sealed/airtight bags	6.6	8.3	6.0	ns	10.9	5.9	ns	5.5	6.9	ns
Community storage facilities, including warehouse receipting	4.4	7.1	3.4	*	10.2	3.4	*	4.5	4.4	ns
Use of solar or fuel-powered dryers to reduce post-harvest moisture	0.0	...	...		...	...		...	...	
Seed or grain treatment techniques (e.g., botanical pest control agents or phytosanitary irradiation)	0.0	...	...		...	...		...	...	
Grain treatment with agro-chemicals	0.2	0.0	0.3	ns	0.0	0.3	ns	0.0	0.3	ns
Triple bags	2.9	1.0	3.7	ns	1.5	3.2	ns	0.3	3.4	**
Other post-harvest practices that reduce pre-storage losses	0.3	0.4	0.3	ns	0.7	0.3	ns	0.7	0.3	ns
Number of responding millet farmers who stored their harvest	590	177	413		96	494		108	482	

NOTES:

[a] Significance tests were performed to determine whether an association exists between the outcome indicator (use of targeted improved practice) and the disaggregate variables. Associations found to be statistically significant are indicated by level: * p<0.05, ** p<0.01, *** p<0.001; ns=not significant.

Table 63: A7.4. Percentage of cowpea farmers applying targeted improved crop management and post-harvest handling and storage practices by use of agricultural-related financial services [Baseline Study, Niger 2020]

	All farmers	Used any agri. financial services			Obtained agri-credit			Participated in agri-saving schemes		
	%	Yes	No	Sig.a	Yes	No	Sig.a	Yes	No	Sig.aq
Improved crop management practices										
Use of improved seeds	8.4	7.0	9.1	ns	7.6	8.6	ns	6.7	8.8	ns
Control of sida cordifolia growth	12.4	14.4	11.2	ns	10.7	12.8	ns	16.6	11.4	ns
Crop association	49.0	42.5	52.6	*	45.8	49.8	ns	38.5	51.3	*
Crop rotation	1.9	2.0	1.8	ns	2.9	1.6	ns	0.5	2.2	*
Sowing after useful rain	33.4	36.5	31.6	ns	44.4	30.4	*	29.1	34.3	ns
Farmer managed natural regeneration (fmnr)	37.6	33.7	39.8	ns	21.4	42.0	***	44.6	36.1	ns
Delimitation of animal corridors and pasture areas	33.1	34.6	32.2	ns	41.4	30.8	ns	26.6	34.5	ns
Protection of ponds against silting up	6.3	5.7	6.7	ns	7.6	6.0	ns	4.7	6.7	ns
Functional community-based conflict management mechanisms	3.6	2.2	4.3	ns	2.8	3.8	ns	1.4	4.1	ns
Delay of seedlings until third or fourth rains to control pests	6.8	5.6	7.4	ns	3.7	7.6	*	7.7	6.6	ns
Seed treatment with fungicides	5.1	4.7	5.3	ns	3.4	5.5	ns	6.0	4.9	ns
Zai pits	5.2	7.0	4.2	*	8.1	4.4	*	5.9	5.1	ns
Organic manure	59.8	66.4	56.1	*	65.7	58.2	ns	69.7	57.6	*
Phosphatic manure	9.6	13.9	7.2	***	11.9	9.0	ns	15.7	8.2	**
Compost	23.4	22.0	24.2	ns	18.4	24.8	ns	26.7	22.7	ns
Microdoses of fertilizer	2.6	3.6	2.0	ns	5.2	1.9	**	2.9	2.5	ns
Agricultural half-moons	1.6	1.9	1.5	ns	1.9	1.5	ns	2.3	1.4	ns
Use of climate information (rain forecast, disaster risks, etc.)	0.5	0.6	0.5	ns	0.1	0.7	**	1.1	0.4	ns
Performing at least three weedings	29.9	29.9	29.8	ns	28.0	30.4	ns	31.6	29.5	ns
Number of responding cowpea farmers	2,582	846	1,736		552	2,030		387	2,195	
Improved post-harvest practices										
Locally made storage structures such as sheet metal silos	4.7	3.8	5.2	ns	5.8	4.4	ns	1.6	5.4	**
Sealed/airtight bags	8.4	8.7	8.3	ns	11.2	7.7	ns	5.2	9.2	ns
Community storage facilities, including warehouse receipting	1.8	1.9	1.8	ns	2.1	1.8	ns	2.0	1.8	ns
Use of solar or fuel-powered dryers to reduce post-harvest moisture	0.3	0.0	0.5	***	0.0	0.4	***	0.1	0.4	*
Seed or grain treatment techniques (e.g., botanical pest control agents or phytosanitary irradiation)	1.0	0.8	1.2	ns	0.3	1.2	*	1.3	1.0	ns
Grain treatment with agro-chemicals	2.0	1.9	2.1	ns	1.6	2.2	ns	1.9	2.1	ns
Triple bags for cowpea grain preservation	3.3	2.6	3.7	ns	4.1	3.1	ns	1.2	3.8	**
Other post-harvest practices that reduce pre-storage losses	7.2	7.1	7.3	ns	7.6	7.1	ns	6.5	7.4	ns
Number of responding cowpea farmers who stored their harvest	2,367	795	1,572		524	1,843		365	2,002	
Improved crop management practices										
Use of improved seeds	9.9	6.2	12.4	*	5.3	11.3	ns	7.2	10.6	ns
Control of sida cordifolia growth	14.1	15.5	13.2	ns	8.6	15.8	ns	20.5	12.4	*
Crop association	48.9	41.2	54.2	*	43.0	50.7	ns	38.5	51.7	ns
Crop rotation	1.2	0.5	1.7	ns	0.9	1.3	ns	0.0	1.5	ns
Sowing after useful rain	35.4	35.1	35.7	ns	41.7	33.5	ns	27.9	37.4	ns
Farmer managed natural regeneration (fmnr)	42.5	34.3	48.2	*	20.4	49.2	***	45.0	41.9	ns
Delimitation of animal corridors and pasture areas	36.5	35.7	37.0	ns	44.1	34.2	ns	24.7	39.7	ns
Protection of ponds against silting up	5.2	3.3	6.5	ns	5.9	5.0	ns	2.2	6.0	ns
Functional community-based conflict management mechanisms	4.4	2.0	6.1	*	2.5	5.0	ns	1.2	5.3	*
Delay of seedlings until third or fourth rains to control pests	7.5	6.0	8.5	ns	2.9	8.9	*	8.8	7.1	ns
Seed treatment with fungicides	2.1	2.7	1.7	ns	1.6	2.2	ns	3.9	1.6	ns
Zai pits	4.0	6.1	2.6	***	6.5	3.3	ns	6.4	3.4	ns
Organic manure	60.0	68.8	53.9	*	67.5	57.7	ns	72.9	56.5	*
Phosphatic manure	8.7	12.8	5.9	*	9.1	8.6	ns	16.6	6.6	**
Compost	25.8	21.9	28.5	ns	14.9	29.0	ns	30.8	24.4	ns

	All farmers	Used any agri. financial services			Obtained agri-credit			Participated in agri-saving schemes		
	%	Yes	No	Sig.a	Yes	No	Sig.a	Yes	No	Sig.aq
Microdoses of fertilizer	2.2	2.7	1.8	ns	4.0	1.6	ns	2.7	2.0	ns
Agricultural half-moons	2.0	2.1	1.9	ns	2.3	1.9	ns	2.5	1.8	ns
Use of climate information (rain forecast, disaster risks, etc.)	0.5	0.6	0.4	*	0.0	0.6	ns	1.1	0.3	***
Performing at least three weedings	33.3	29.6	35.9	ns	24.9	35.9	ns	34.0	33.2	ns
Number of responding cowpea farmers	961	387	574		250	711		172	789	
Improved post-harvest practices										
Locally made storage structures such as sheet metal silos	1.7	2.4	1.2	ns	4.0	1.0	ns	0.9	1.9	ns
Sealed/airtight bags	4.0	2.9	4.7	ns	3.2	4.2	ns	2.0	4.5	ns
Community storage facilities, including warehouse receipting	0.7	0.6	0.7	ns	0.0	0.9	ns	1.2	0.5	ns
Use of solar or fuel-powered dryers to reduce post-harvest moisture	0.3	0.0	0.5	ns	0.0	0.4	ns	0.0	0.4	ns
Seed or grain treatment techniques (e.g., botanical pest control agents or phytosanitary irradiation)	1.3	1.0	1.6	ns	0.3	1.7	*	1.7	1.2	ns
Grain treatment with agro-chemicals	1.4	0.8	1.9	ns	0.0	1.8	ns	1.4	1.4	ns
Triple bags for cowpea grain preservation	1.1	0.6	1.5	ns	1.1	1.2	ns	0.0	1.5	ns
Other post-harvest practices that reduce pre-storage losses	9.7	8.2	10.8	ns	9.4	9.8	ns	6.6	10.5	ns
Number of responding cowpea farmers who stored their harvest	951	384	567		248	703		171	780	
Improved crop management practices										
Use of improved seeds	12.4	19.1	9.8	*	21.8	9.5	**	14.3	12.2	ns
Control of sida cordifolia growth	20.1	24.8	18.2	ns	26.8	18.0	ns	15.3	20.5	ns
Crop association	71.1	68.5	72.2	ns	73.6	70.4	ns	66.3	71.6	ns
Crop rotation	5.7	10.7	3.8	*	11.7	3.9	**	3.6	5.9	ns
Sowing after useful rain	41.1	52.3	36.8	*	56.4	36.5	*	45.8	40.7	ns
Farmer managed natural regeneration (fmnr)	18.8	20.2	18.2	ns	19.1	18.7	ns	25.6	18.1	ns
Delimitation of animal corridors and pasture areas	30.8	32.7	30.0	ns	30.0	31.0	ns	56.4	28.5	***
Protection of ponds against silting up	8.9	4.4	10.7	**	3.6	10.5	*	6.0	9.2	ns
Functional community-based conflict management mechanisms	2.6	3.6	2.2	ns	3.5	2.3	ns	2.5	2.6	ns
Delay of seedlings until third or fourth rains to control pests	11.9	9.8	12.7	ns	8.8	12.8	ns	14.5	11.7	ns
Seed treatment with fungicides	13.5	10.1	14.9	ns	9.6	14.7	ns	10.9	13.8	ns
Zai pits	15.2	18.3	14.0	ns	19.6	13.8	ns	9.9	15.6	ns
Organic manure	61.5	54.3	64.3	*	53.0	64.1	ns	60.1	61.6	ns
Phosphatic manure	15.7	25.2	12.0	**	27.6	12.2	***	15.9	15.7	ns
Compost	34.5	40.1	32.3	ns	43.4	31.8	ns	21.1	35.7	ns
Microdoses of fertilizer	5.9	10.5	4.1	**	11.5	4.2	**	9.3	5.6	ns
Agricultural half-moons	1.7	1.3	1.9	ns	1.6	1.7	ns	1.0	1.8	ns
Use of climate information (rain forecast, disaster risks, etc.)	1.5	1.2	1.6	ns	0.5	1.8	ns	3.0	1.3	ns
Performing at least three weedings	37.4	49.0	32.9	**	51.9	33.0	**	41.3	37.1	ns
Number of responding cowpea farmers	909	251	658		194	715		88	821	
Improved post-harvest practices										
Locally made storage structures such as sheet metal silos	7.1	6.5	7.4	ns	7.3	7.1	ns	1.3	7.7	*
Sealed/airtight bags	28.9	39.2	24.6	**	41.8	24.7	**	28.7	28.9	ns
Community storage facilities, including warehouse receipting	5.2	6.9	4.4	ns	7.3	4.5	ns	11.1	4.6	*
Use of solar or fuel-powered dryers to reduce post-harvest moisture	0.5	0.3	0.6	ns	0.1	0.7	*	1.2	0.5	ns
Seed or grain treatment techniques (e.g., botanical pest control agents or phytosanitary irradiation)	1.0	0.6	1.1	ns	0.7	1.0	ns	0.0	1.0	ns
Grain treatment with agro-chemicals	5.1	8.5	3.7	ns	10.0	3.5	*	2.2	5.4	ns
Triple bags for cowpea grain preservation	11.8	17.5	9.4	ns	20.7	8.9	**	14.6	11.5	ns
Other post-harvest practices that reduce pre-storage losses	2.5	4.4	1.6	ns	5.3	1.5	*	4.6	2.3	ns
Number of responding cowpea farmers who stored their harvest	779	220	559		171	608		79	700	

	All farmers	Used any agri. financial services			Obtained agri-credit			Participated in agri-saving schemes		
	%	Yes	No	Sig.a	Yes	No	Sig.a	Yes	No	Sig.aq
Improved crop management practices										
Use of improved seeds	0.4	1.0	0.2	ns	0.3	0.4	ns	1.4	0.2	ns
Control of sida cordifolia growth	0.5	0.3	0.5	ns	0.0	0.5	ns	0.5	0.5	ns
Crop association	31.3	26.9	32.9	ns	23.7	32.5	ns	27.5	32.0	ns
Crop rotation	0.9	1.8	0.5	ns	1.7	0.7	ns	1.5	0.7	ns
Sowing after useful rain	20.7	30.4	17.3	**	42.2	17.3	***	27.1	19.5	ns
Farmer managed natural regeneration (fmnr)	37.0	41.7	35.3	ns	30.0	38.2	ns	50.7	34.4	ns
Delimitation of animal corridors and pasture areas	24.2	31.3	21.5	ns	42.8	21.1	*	22.4	24.5	ns
Protection of ponds against silting up	7.8	18.2	4.0	***	22.3	5.4	***	14.6	6.5	*
Functional community-based conflict management mechanisms	1.6	1.8	1.5	ns	3.2	1.4	ns	1.6	1.6	ns
Delay of seedlings until third or fourth rains to control pests	0.5	0.5	0.5	ns	0.9	0.4	ns	0.0	0.6	ns
Seed treatment with fungicides	7.8	9.5	7.2	ns	4.3	8.4	ns	13.1	6.8	ns
Zai pits	1.0	2.2	0.6	*	1.6	1.0	ns	2.3	0.8	ns
Organic manure	57.8	64.5	55.4	ns	73.6	55.3	ns	59.9	57.4	ns
Phosphatic manure	7.4	9.4	6.7	ns	5.6	7.7	ns	11.6	6.7	ns
Compost	7.0	7.6	6.8	ns	3.3	7.6	ns	11.5	6.1	ns
Microdoses of fertilizer	1.3	2.3	0.9	ns	3.2	1.0	ns	1.1	1.3	ns
Agricultural half-moons	0.3	1.2	0.1	**	0.0	0.4	ns	1.9	0.0	***
Use of climate information (rain forecast, disaster risks, etc.)	0.0	...	...		...	...		...	...	
Performing at least three weedings	12.8	15.6	11.8	ns	12.4	12.9	ns	17.7	11.9	ns
Number of responding cowpea farmers	712	208	504		108	604		127	585	
Improved post-harvest practices										
Locally made storage structures such as sheet metal silos	13.1	9.1	14.5	ns	13.4	13.0	ns	5.1	14.6	*
Sealed/airtight bags	8.7	14.3	6.6	*	16.9	7.3	*	10.1	8.4	ns
Community storage facilities, including warehouse receipting	3.4	4.3	3.1	ns	6.9	2.8	ns	2.0	3.7	ns
Use of solar or fuel-powered dryers to reduce post-harvest moisture	0.4	0.0	0.5	ns	0.0	0.4	ns	0.0	0.4	ns
Seed or grain treatment techniques (e.g., botanical pest control agents or phytosanitary irradiation)	0.0	...	...		...	...		...	...	
Grain treatment with agro-chemicals	1.9	2.5	1.6	ns	0.0	2.2	ns	4.2	1.4	*
Triple bags	4.4	0.6	5.8	*	0.0	5.2	ns	1.1	5.1	ns
Other post-harvest practices that reduce pre-storage losses	2.2	3.9	1.6	ns	1.3	2.3	ns	6.6	1.3	*
Number of responding cowpea farmers who stored their harvest	637	191	446		105	532		115	522	

NOTES:

[a] Significance tests were performed to determine whether an association exists between the outcome indicator (use of targeted improved practice) and the disaggregate variables. Associations found to be statistically significant are indicated by level: * p<0.05, ** p<0.01, *** p<0.001; ns=not significant.

Table 64: A7.5. Percentage of peanut farmers applying targeted improved crop management and post-harvest handling and storage practices by use of agricultural-related financial services [Baseline Study, Niger 2020]

	All farmers	Used any agri. financial services			Obtained agri-credit			Participated in agri-saving schemes		
	%	Yes	No	Sig.a	Yes	No	Sig.a	Yes	No	Sig.aq
Combined RFSA Areas										
Improved crop management practices										
Use of improved seeds	10.4	7.0	12.5	*	7.9	11.1	ns	8.0	10.9	ns
Control of sida cordifolia growth	13.6	14.6	13.0	ns	11.2	14.3	ns	18.2	12.5	ns
Crop association	48.4	38.2	54.8	**	42.2	50.2	ns	37.7	51.0	ns
Crop rotation	2.4	2.6	2.2	ns	4.2	1.8	ns	0.5	2.8	*
Sowing after useful rain	33.2	30.0	35.1	ns	33.6	33.0	ns	29.1	34.2	ns
Farmer managed natural regeneration (fmnr)	40.0	36.3	42.2	ns	23.8	44.5	**	47.1	38.2	ns
Delimitation of animal corridors and pasture areas	37.8	30.8	42.1	ns	31.2	39.6	ns	31.9	39.2	ns
Protection of ponds against silting up	8.2	6.6	9.2	ns	9.0	8.0	ns	7.6	8.4	ns
Functional community-based conflict management mechanisms	5.2	3.2	6.5	ns	4.2	5.5	ns	2.0	6.0	ns
Delay of seedlings until third or fourth rains to control pests	10.6	9.0	11.6	ns	8.5	11.2	ns	10.5	10.6	ns
Seed treatment with fungicides	5.1	2.9	6.5	**	2.8	5.8	*	2.9	5.7	ns
Zai pits	6.2	9.9	3.9	**	10.2	5.1	ns	9.1	5.5	ns
Organic manure	67.5	75.4	62.6	***	75.0	65.4	ns	74.7	65.7	**
Phosphatic manure	11.0	14.6	8.8	*	12.1	10.7	ns	16.9	9.5	*
Compost	27.3	25.6	28.3	ns	21.8	28.8	ns	28.6	26.9	ns
Microdoses of fertilizer	3.2	3.3	3.1	ns	5.5	2.6	ns	0.8	3.8	*
Agricultural half-moons	1.7	2.2	1.4	ns	1.8	1.7	ns	2.8	1.5	ns
Use of climate information (rain forecast, disaster risks, etc.)	0.4	0.2	0.5	ns	0.1	0.5	ns	0.4	0.4	ns
Performing at least three weedings	25.7	20.9	28.8	*	19.9	27.4	ns	21.6	26.7	ns
Number of responding peanut farmers	1,132	384	748		253	879		174	958	
Improved post-harvest practices										
Locally made storage structures such as sheet metal silos	3.5	3.0	3.9	ns	4.8	3.2	ns	1.7	4.0	ns
Sealed/airtight bags	17.0	13.5	19.2	ns	17.3	16.9	ns	9.2	18.9	*
Community storage facilities, including warehouse receipting	2.1	2.3	2.0	ns	3.4	1.8	ns	2.2	2.1	ns
Use of solar or fuel-powered dryers to reduce post-harvest moisture	0.7	0.0	1.1	ns	0.0	0.9	ns	0.0	0.8	ns
Seed or grain treatment techniques (e.g., botanical pest control agents or phytosanitary irradiation)	0.5	0.7	0.3	ns	0.2	0.5	ns	1.4	0.2	ns
Grain treatment with agro-chemicals	0.5	1.0	0.2	ns	0.2	0.6	ns	1.8	0.2	*
Triple bags for peanut grain preservation	2.4	3.1	2.0	ns	3.4	2.1	ns	2.8	2.3	ns
Other post-harvest practices that reduce pre-storage losses	5.0	4.0	5.6	ns	6.8	4.4	ns	0.4	6.1	***
Number of responding peanut farmers who stored their harvest	998	342	656		231	767		153	845	
Girma										
Improved crop management practices										
Use of improved seeds	9.9	4.3	13.9	**	3.5	11.7	ns	6.3	11.0	ns
Control of sida cordifolia growth	12.3	13.6	11.4	ns	6.8	13.8	ns	20.5	9.9	*
Crop association	44.8	33.3	53.1	*	33.1	48.0	ns	36.7	47.2	ns
Crop rotation	1.0	0.7	1.2	ns	1.3	0.9	ns	0.0	1.3	ns
Sowing after useful rain	31.3	25.4	35.6	*	27.0	32.6	ns	25.6	33.0	ns
Farmer managed natural regeneration (fmnr)	46.0	39.5	50.6	ns	24.8	51.8	**	50.5	44.6	ns
Delimitation of animal corridors and pasture areas	38.6	30.1	44.8	ns	32.4	40.3	ns	28.5	41.6	ns
Protection of ponds against silting up	6.3	4.1	7.9	ns	8.0	5.8	ns	3.9	7.0	ns
Functional community-based conflict management mechanisms	6.2	2.8	8.6	ns	3.7	6.8	ns	1.6	7.5	ns
Delay of seedlings until third or fourth rains to control pests	12.0	10.5	13.1	ns	10.3	12.5	ns	12.2	11.9	ns
Seed treatment with fungicides	2.2	1.5	2.6	ns	0.6	2.6	ns	2.3	2.2	ns
Zai pits	4.3	9.0	1.0	***	8.8	3.1	ns	9.6	2.8	*
Organic manure	65.5	78.5	56.0	***	79.8	61.5	*	75.5	62.5	***
Phosphatic manure	9.3	12.6	6.9	ns	6.8	10.0	ns	18.1	6.7	**

	All farmers	Used any agri. financial services			Obtained agri-credit			Participated in agri-saving schemes		
	%	Yes	No	Sig.a	Yes	No	Sig.a	Yes	No	Sig.aq
Compost	27.2	24.1	29.4	ns	15.8	30.4	ns	31.2	26.0	ns
Microdoses of fertilizer	2.5	2.1	2.8	ns	4.0	2.1	ns	0.0	3.2	ns
Agricultural half-moons	1.8	2.1	1.6	ns	2.0	1.7	ns	2.4	1.6	ns
Use of climate information (rain forecast, disaster risks, etc.)										
Performing at least three weedings	24.4	17.7	29.2	**	12.8	27.6	*	22.2	25.0	ns
Number of responding peanut farmers	444	177	267		103	341		86	358	
Improved post-harvest practices										
Locally made storage structures such as sheet metal silos	2.2	1.3	2.9	ns	2.4	2.2	ns	0.0	2.9	ns
Sealed/airtight bags	12.8	7.8	16.4	**	7.6	14.3	ns	7.6	14.4	ns
Community storage facilities, including warehouse receipting	0.9	0.9	0.8	ns	1.7	0.6	**	0.0	1.1	ns
Use of solar or fuel-powered dryers to reduce post-harvest moisture	0.7	0.0	1.2	ns	0.0	0.9	ns	0.0	0.9	ns
Seed or grain treatment techniques (e.g., botanical pest control agents or phytosanitary irradiation)	0.3	0.8	0.0	ns	0.0	0.4	ns	1.4	0.0	ns
Grain treatment with agro-chemicals	0.5	1.2	0.0	ns	0.0	0.6	ns	2.1	0.0	ns
Triple bags for peanut grain preservation	1.1	1.2	1.1	ns	0.0	1.5	ns	2.1	0.8	ns
Other post-harvest practices that reduce pre-storage losses	6.1	4.5	7.2	ns	8.5	5.4	ns	0.5	7.7	**
Number of responding peanut farmers who stored their harvest	422	166	256		99	323		81	341	
							Hamzari			
Improved crop management practices										
Use of improved seeds	14.6	21.1	12.0	*	23.7	11.9	**	23.6	13.7	ns
Control of sida cordifolia growth	21.5	25.5	19.9	ns	28.1	19.5	*	12.1	22.4	ns
Crop association	69.9	69.7	70.0	ns	75.2	68.3	ns	65.5	70.4	ns
Crop rotation	7.2	13.0	4.9	ns	14.2	5.1	*	4.7	7.5	ns
Sowing after useful rain	43.2	52.4	39.6	ns	55.6	39.6	ns	44.8	43.1	ns
Farmer managed natural regeneration (fmnr)	18.5	19.9	18.0	ns	17.4	18.9	ns	24.0	18.0	ns
Delimitation of animal corridors and pasture areas	32.6	31.3	33.1	ns	26.0	34.6	ns	58.3	30.1	**
Protection of ponds against silting up	9.3	5.7	10.8	ns	4.3	10.8	ns	8.4	9.4	ns
Functional community-based conflict management mechanisms	3.4	4.5	3.0	ns	4.8	3.0	ns	1.9	3.6	ns
Delay of seedlings until third or fourth rains to control pests	9.6	6.0	11.1	ns	5.9	10.7	ns	4.9	10.1	ns
Seed treatment with fungicides	15.6	10.5	17.6	ns	10.4	17.1	ns	10.1	16.1	ns
Zai pits	13.3	16.6	12.0	ns	17.6	12.0	ns	7.1	13.9	ns
Organic manure	68.5	58.6	72.5	**	58.8	71.5	*	60.0	69.4	ns
Phosphatic manure	17.2	26.1	13.7	**	30.8	13.2	***	10.1	17.9	ns
Compost	35.4	40.0	33.6	ns	45.2	32.5	*	19.3	37.0	*
Microdoses of fertilizer	6.1	10.3	4.4	*	11.4	4.5	*	6.8	6.0	ns
Agricultural half-moons	1.8	2.4	1.5	ns	1.9	1.7	ns	2.9	1.6	ns
Use of climate information (rain forecast, disaster risks, etc.)	1.9	1.4	2.1	ns	0.5	2.3	ns	3.5	1.7	ns
Performing at least three weedings	37.7	44.8	34.9	ns	48.0	34.6	ns	34.4	38.0	ns
Number of responding peanut farmers	571	163	408		122	449		64	507	
Improved post-harvest practices										
Locally made storage structures such as sheet metal silos	8.0	12.1	6.3	ns	12.6	6.5	ns	17.9	7.0	*
Sealed/airtight bags	35.4	45.2	31.1	ns	51.4	29.9	*	26.2	36.3	ns
Community storage facilities, including warehouse receipting	4.0	6.7	2.8	ns	6.8	3.0	ns	16.6	2.7	**
Use of solar or fuel-powered dryers to reduce post-harvest moisture	0.3	0.0	0.4	ns	0.0	0.4	ns	0.0	0.3	ns
Seed or grain treatment techniques (e.g., botanical pest control agents or phytosanitary irradiation)	0.8	0.8	0.7	ns	1.0	0.7	ns	2.7	0.6	ns
Grain treatment with agro-chemicals	0.7	0.7	0.7	ns	0.8	0.7	ns	0.0	0.8	ns
Triple bags for peanut grain preservation	7.8	13.7	5.2	***	14.9	5.3	**	10.6	7.5	ns
Other post-harvest practices that reduce pre-storage losses	2.7	3.0	2.5	ns	3.6	2.3	ns	0.0	2.9	ns
Number of responding peanut farmers who stored their harvest	479	142	337		110	369		53	426	

	All farmers	Used any agri. financial services			Obtained agri-credit			Participated in agri-saving schemes		
	%	Yes	No	Sig.a	Yes	No	Sig.a	Yes	No	Sig.aq
							Wadata			
Improved crop management practices										
Use of improved seeds	2.1	3.5	1.3	ns	0.0	2.7	ns	5.9	1.0	ns
Control of sida cordifolia growth	2.2	0.6	3.1	ns	0.0	2.8	ns	1.1	2.5	ns
Crop association	17.8	18.9	17.2	ns	24.7	15.7	ns	11.6	19.5	ns
Crop rotation	1.1	0.0	1.7	ns	0.0	1.4	ns	0.0	1.4	ns
Sowing after useful rain	20.2	29.3	14.9	ns	27.6	18.0	ns	44.6	13.5	*
Farmer managed natural regeneration (fmnr)	46.6	39.0	50.9	ns	34.6	50.2	ns	40.9	48.1	ns
Delimitation of animal corridors and pasture areas	45.1	37.1	49.7	ns	35.9	47.9	ns	34.4	48.1	ns
Protection of ponds against silting up	23.6	37.0	15.8	ns	31.9	21.1	ns	44.8	17.7	**
Functional community-based conflict management mechanisms	1.7	4.1	0.4	*	6.5	0.3	**	5.9	0.6	*
Delay of seedlings until third or fourth rains to control pests	0.0	...	...		...	...		...	...	
Seed treatment with fungicides	2.2	0.0	3.4	ns	0.0	2.8	ns	0.0	2.8	ns
Zai pits	2.6	3.5	2.0	ns	0.0	3.3	ns	5.9	1.6	***
Organic manure	84.5	79.7	87.3	ns	80.6	85.6	ns	84.9	84.4	ns
Phosphatic manure	8.7	9.2	8.4	ns	3.6	10.2	ns	13.0	7.5	ns
Compost	3.1	8.3	0.0	*	5.5	2.3	ns	14.1	0.0	***
Microdoses of fertilizer	1.8	1.2	2.1	ns	1.0	2.0	ns	1.1	2.0	ns
Agricultural half-moons	1.3	3.5	0.0	ns	0.0	1.7	ns	5.9	0.0	*
Use of climate information (rain forecast, disaster risks, etc.)	0.0	...	...		...	...		...	...	
Performing at least three weedings	2.4	0.0	3.8	ns	0.0	3.1	ns	0.0	3.0	ns
Number of responding peanut farmers	117	44	73		28	89		24	93	
Improved post-harvest practices										
Locally made storage structures such as sheet metal silos	4.1	1.8	5.3	ns	2.9	4.4	ns	0.0	5.2	ns
Sealed/airtight bags	5.9	3.5	7.1	ns	1.3	7.1	ns	4.5	6.2	ns
Community storage facilities, including warehouse receipting	10.5	8.5	11.5	ns	9.0	10.9	ns	9.4	10.8	ns
Use of solar or fuel-powered dryers to reduce post-harvest moisture	1.2	0.0	1.8	ns	0.0	1.5	ns	0.0	1.5	ns
Seed or grain treatment techniques (e.g., botanical pest control agents or phytosanitary irradiation)	1.3	0.0	2.0	ns	0.0	1.7	ns	0.0	1.7	ns
Grain treatment with agro-chemicals	0.0	...	...		...	...		...	...	
Triple bags	0.0	...	...		...	...		...	...	
Other post-harvest practices that reduce pre-storage losses	0.0	...	...		...	...		...	...	
Number of responding peanut farmers who stored their harvest	97	34	63		22	75		19	78	

NOTES:

[a] Significance tests were performed to determine whether an association exists between the outcome indicator (use of targeted improved practice) and the disaggregate variables. Associations found to be statistically significant are indicated by level:

* p<0.05, ** p<0.01, *** p<0.001; ns=not significant.

Table 65: Table A7.6. Percentage of goat farmers applying targeted improved livestock management practices by use of agricultural-related financial services [Baseline Study, Niger 2020]

	All Farmers	Used any agri-related financialservices			Obtained agri-credit			Participated in agri-savingschemes		
	%	Yes	No	Sig.a	Yes	No	Sig.a	Yes	No	Sig.a
Combined RFSA Areas										
Improved livestock management practices										
Improved fodder production	9.3	16.0	6.1	**	10.4	9.1	ns	21.6	6.1	***
Use of licking and/or multi-nutritional block	7.5	11.9	5.5	*	12.9	6.6	ns	11.3	6.6	ns
Animal selection	10.8	13.1	9.7	*	7.4	11.4	ns	16.9	9.2	**
Vaccinations	36.6	40.7	34.6	ns	42.5	35.5	ns	40.4	35.6	ns
Antiparasitic treatments	35.7	37.0	35.2	ns	36.5	35.6	ns	35.3	35.9	ns
Veterinary monitoring of food quality and quantity over time	1.5	1.8	1.3	ns	2.9	1.2	ns	1.7	1.4	ns
Weight monitoring	3.4	3.0	3.5	ns	6.0	2.9	ns	1.9	3.7	ns
Optimum weight-market price criteria for the sale decision	0.5	1.2	0.1	***	0.7	0.4	ns	1.4	0.2	*
Use of para-veterinary services for goats and sheep	4.9	5.9	4.4	ns	2.4	5.3	ns	7.5	4.2	ns
Number of responding goat herders	1,316	341	975		177	1,139		206	1,110	
Girma										
Improved livestock management practices										
Improved fodder production	11.0	16.4	7.9	ns	8.6	11.5	ns	22.4	7.5	*
Use of licking and/or multi-nutritional block	7.4	12.7	4.3	*	14.3	6.0	ns	11.6	6.0	ns
Animal selection	12.2	13.6	11.4	ns	7.1	13.2	ns	17.9	10.4	*
Vaccinations	37.5	44.8	33.2	ns	48.8	35.3	ns	42.5	35.9	ns
Antiparasitic treatments	38.2	38.2	38.1	ns	38.8	38.1	ns	35.7	39.0	ns
Veterinary monitoring of food quality and quantity over time	1.2	1.5	1.0	ns	3.3	0.8	ns	1.3	1.2	ns
Weight monitoring	4.0	2.9	4.7	ns	6.6	3.5	ns	1.8	4.7	ns
Optimum weight-market price criteria for the sale decision	0.3	0.8	0.0	ns	0.0	0.4	ns	1.3	0.0	ns
Use of para-veterinary services for goats and sheep	6.5	6.7	6.3	ns	2.1	7.3	ns	8.7	5.7	ns
Number of responding goat herders	526	169	357		82	444		103	423	
Hamzari										
Improved livestock management practices										
Improved fodder production	4.6	17.6	1.8	***	19.9	2.5	***	26.8	2.6	***
Use of licking and/or multi-nutritional block	3.9	10.3	2.5	***	11.4	2.8	**	10.4	3.3	*
Animal selection	7.0	16.1	5.0	**	11.3	6.4	ns	22.9	5.5	**
Vaccinations	48.2	41.9	49.6	ns	37.3	49.7	ns	51.7	47.9	ns
Antiparasitic treatments	33.8	27.7	35.2	ns	27.0	34.8	ns	21.9	34.9	ns
Veterinary monitoring of food quality and quantity over time	2.2	6.3	1.3	***	3.6	2.0	ns	8.9	1.6	***
Weight monitoring	3.3	6.6	2.5	*	8.2	2.6	*	2.8	3.3	ns
Optimum weight-market price criteria for the sale decision	1.5	5.3	0.7	***	4.5	1.1	***	4.7	1.2	**
Use of para-veterinary services for goats and sheep	2.1	7.1	1.0	***	6.2	1.6	***	6.8	1.7	*
Number of responding goat herders	530	97	433		57	473		55	475	
Wadata										
Improved livestock management practices										
Improved fodder production	6.8	12.0	4.8	*	9.6	6.3	ns	13.3	5.4	ns
Use of licking and/or multi-nutritional block	13.1	8.1	15.0	ns	6.4	14.2	ns	9.8	13.8	ns
Animal selection	8.7	7.5	9.1	ns	4.2	9.4	ns	6.9	9.1	ns
Vaccinations	17.3	13.4	18.7	ns	13.1	17.9	ns	19.6	16.8	ns
Antiparasitic treatments	26.6	36.8	22.7	ns	34.8	25.2	ns	40.9	23.5	ns
Veterinary monitoring of food quality and quantity over time	1.8	0.0	2.5	ns	0.0	2.1	ns	0.0	2.2	ns
Weight monitoring	0.3	1.0	0.0	ns	0.0	0.3	ns	1.5	0.0	*
Optimum weight-market price criteria for the sale decision	0.0	...	...		...	...		...	...	
Use of para-veterinary services for goats and sheep	0.8	0.0	1.1	ns	0.0	0.9	ns	0.0	1.0	ns
Number of responding goat herders	260	75	185		38	222		48	212	

NOTES:

[a] Significance tests were performed to determine whether an association exists between the outcome indicator (use of targeted improved practice) and the disaggregate variables. Associations found to be statistically significant are indicated by level: * p<0.05, ** p<0.01, *** p<0.001; ns=not significant.

Table 66: A7.7. Percentage of sheep farmers applying targeted improved livestock management practices by use of agricultural-related financial services [Baseline Study, Niger 2020]

	All Farmers	Used any agri-related financialservices			Obtained agri-credit			Participated in agri-savingschemes		
	%	Yes	No	Sig.a	Yes	No	Sig.a	Yes	No	Sig.a
Combined RFSA Areas										
Improved livestock management practices										
Improved fodder production	9.6	17.8	4.7	*	16.3	8.5	ns	19.2	5.6	*
Use of licking and/or multi-nutritional block	7.6	9.4	6.6	ns	7.7	7.6	ns	8.7	7.1	ns
Animal selection	13.6	18.5	10.6	*	13.6	13.6	ns	21.1	10.4	**
Vaccinations	38.0	43.0	35.0	ns	34.0	38.6	ns	40.9	36.7	ns
Antiparasitic treatments	39.2	44.7	35.9	ns	38.0	39.4	ns	44.4	37.0	ns
Veterinary monitoring of food quality and quantity over time	2.4	3.3	1.9	ns	4.6	2.1	ns	3.8	1.9	ns
Weight monitoring	3.0	2.6	3.2	ns	4.3	2.8	ns	2.5	3.2	ns
Optimum weight-market price criteria for the sale decision	0.1	0.1	0.0	ns	0.0	0.1	ns	0.1	0.0	ns
Use of para-veterinary services for sheeps and sheep	8.3	12.2	5.9	ns	4.5	8.9	ns	13.3	6.1	ns
Number of responding sheep herders	523	160	363		81	442		111	412	
Girma										
Improved livestock management practices										
Improved fodder production	11.5	18.1	6.0	ns	17.1	10.6	ns	17.2	7.8	ns
Use of licking and/or multi-nutritional block	7.4	9.3	5.8	ns	9.2	7.1	ns	7.5	7.3	ns
Animal selection	16.7	20.5	13.5	ns	16.4	16.8	ns	22.3	13.2	ns
Vaccinations	37.8	43.3	33.2	ns	25.7	39.8	ns	42.4	34.9	ns
Antiparasitic treatments	43.2	50.3	37.2	ns	48.6	42.3	ns	47.0	40.7	ns
Veterinary monitoring of food quality and quantity over time	2.3	3.1	1.7	ns	5.6	1.8	ns	3.6	1.5	ns
Weight monitoring	3.5	1.4	5.3	ns	3.5	3.5	ns	1.7	4.7	ns
Optimum weight-market price criteria for the sale decision	0.0	...	...		...	...		...	...	
Use of para-veterinary services for sheeps and sheep	11.7	15.3	8.8	ns	6.2	12.7	ns	15.6	9.3	ns
Number of responding sheep herders	197	80	117		29	168		63	134	
Hamzari										
Improved livestock management practices										
Improved fodder production	5.4	21.7	1.0	***	21.5	1.8	***	55.5	1.1	***
Use of licking and/or multi-nutritional block	4.8	9.5	3.5	*	7.4	4.2	ns	20.0	3.5	**
Animal selection	5.9	13.8	3.8	ns	12.5	4.5	ns	19.8	4.7	ns
Vaccinations	51.9	60.8	49.6	ns	62.9	49.5	ns	39.3	53.0	ns
Antiparasitic treatments	33.8	23.3	36.6	*	19.9	36.9	*	22.3	34.8	ns
Veterinary monitoring of food quality and quantity over time	4.1	8.2	3.0	ns	4.1	4.1	ns	13.7	3.2	*
Weight monitoring	3.6	13.2	1.0	***	8.3	2.5	***	20.7	2.1	***
Optimum weight-market price criteria for the sale decision	0.3	1.0	0.1	*	0.0	0.3	ns	2.6	0.1	***
Use of para-veterinary services for sheeps and sheep	2.9	1.8	3.2	ns	2.1	3.1	ns	1.6	3.0	ns
Number of responding sheep herders	215	50	165		40	175		26	189	
Wadata										
Improved livestock management practices										
Improved fodder production	7.4	11.4	6.0	ns	0.0	8.3	ns	15.9	5.5	ns
Use of licking and/or multi-nutritional block	12.5	10.0	13.4	ns	0.0	14.0	ns	13.9	12.2	ns
Animal selection	10.5	8.3	11.3	ns	0.0	11.7	ns	11.5	10.3	ns
Vaccinations	20.1	20.6	19.9	ns	14.2	20.8	ns	28.6	18.2	ns
Antiparasitic treatments	29.6	26.3	30.7	ns	19.6	30.7	ns	33.9	28.6	ns
Veterinary monitoring of food quality and quantity over time	0.8	0.0	1.1	ns	0.0	0.9	ns	0.0	1.0	ns
Weight monitoring	0.0	...	...		...	...		...	...	
Optimum weight-market price criteria for the sale decision	0.0	...	...		...	...		...	...	
Use of para-veterinary services for sheeps and sheep	0.8	0.0	1.1	ns	0.0	0.9	ns	0.0	1.0	ns
Number of responding sheep herders	111	30	81		12	99		22	89	

NOTES:

[a] Significance tests were performed to determine whether an association exists between the outcome indicator (use of targeted improved practice) and the disaggregate variables. Associations found to be statistically significant are indicated by level: * p<0.05, ** p<0.01, *** p<0.001; ns=not significant.

Table 67: A7.8. Percentage of poultry farmers applying targeted improved livestock management practices by use of agricultural-related financial services [Baseline Study, Niger 2020]

	All Farmers	Used any agri-related financialservices			Obtained agri-credit			Participated in agri-savingschemes		
	%	Yes	No	Sig.a	Yes	No	Sig.a	Yes	No	Sig.a
Combined RFSA Areas										
Improved livestock management practices										
Use of improved poultry variety/breed	10.3	11.8	9.6	ns	18.1	8.9	*	11.5	10.0	ns
Use of improved feed	9.7	14.1	7.4	*	13.0	9.1	ns	13.9	8.5	ns
Use of improved shelters	9.6	12.8	8.0	ns	8.8	9.8	ns	14.3	8.3	*
Vaccinations	17.4	18.8	16.6	ns	25.1	15.9	ns	17.1	17.4	ns
Use of veterinary products and services (antibiotics, vitamins, etc.)	9.8	13.0	8.2	ns	22.8	7.4	**	8.9	10.0	ns
Number of responding poultry farmers	547	172	375		93	454		107	440	
Girma										
Improved livestock management practices										
Use of improved poultry variety/breed	improv	12.2	10.7	ns	22.1	9.4	*	10.4	11.5	ns
Use of improved feed	10.7	16.6	7.4	*	14.5	10.1	ns	15.7	9.0	ns
Use of improved shelters	10.7	13.8	8.9	ns	7.8	11.1	ns	15.1	9.1	ns
Vaccinations	18.8	18.0	19.3	ns	25.0	17.8	ns	18.2	19.1	ns
Use of veterinary products and services (antibiotics, vitamins, etc.)	9.8	14.8	6.9	ns	29.3	6.4	***	9.7	9.8	ns
Number of responding poultry farmers	223	70	153		33	190		47	176	
Hamzari										
Improved livestock management practices										
Use of improved poultry variety/breed	8.8	10.9	7.8	ns	9.3	8.6	ns	26.4	6.1	**
Use of improved feed	8.6	9.5	8.2	ns	10.7	8.0	ns	10.7	8.3	ns
Use of improved shelters	11.1	15.0	9.2	ns	14.1	10.1	ns	19.1	9.8	ns
Vaccinations	30.7	34.4	28.9	ns	41.1	27.4	ns	16.4	33.0	*
Use of veterinary products and services (antibiotics, vitamins, etc.)	veterin	14.2	16.1	ns	16.2	15.3	ns	12.8	16.0	ns
Number of responding poultry farmers	178	59	119		39	139		30	148	
Wadata										
Improved livestock management practices										
Vaccinations	8.6	10.8	7.8	ns	15.6	7.5	ns	8.6	8.6	ns
Use of improved poultry variety/breed	7.2	8.1	6.9	ns	10.8	6.7	ns	7.6	7.1	ns
Use of veterinary products and services (antibiotics, vitamins, etc.)	5.5	7.2	4.9	ns	5.0	5.6	ns	8.1	4.9	ns
Use of improved feed	3.5	8.7	1.6	*	4.7	3.3	ns	12.7	1.4	**
Use of improved shelters	5.9	4.3	6.4	ns	8.8	5.4	ns	3.6	6.4	ns
Number of responding poultry farmers	146	43	103		21	125		30	116	

NOTES:

^ Results not statistically reliable, n<30.

[a] Significance tests were performed to determine whether an association exists between the outcome indicator (use of targeted improved practice) and the disaggregate variables. Associations found to be statistically significant are indicated by level: * p<0.05, ** p<0.01, *** p<0.001; ns=not significant.

Table 68: A7.9. Percentage of women 15-49 years achieving a diet of minimum diversity by individual and household characteristics [Baseline Study, Niger 2020]

	Combined RFSA Areas			Girma			Hamzari			Wadata		
	No. of women	%	Sig.a	No. of women	%	Sig.a	No. of women	%	Sig.a	No. of women	%	Sig.a
All women 15-49 years	**2,452**	**45**		**715**	**46**		**1,155**	**50**		**582**	**38**	
Women's characteristics												
Age												
15-19 years	565	50.0	*	131	55.4	*	279	47.5	ns	155	42.2	ns
20 - 29 years	859	47.7		268	49.1		382	54.3		209	35.7	
30-49 years	1,028	41.1		316	39.8		494	47.4		218	36.4	
Educational level												
Never attended school	1,863	44.2	ns	589	45.3	ns	817	50.0	ns	457	34.7	ns
Preschool	6	72.9					5	96.7		1	0.0	
Primary	339	47.4		91	48.6		177	43.8		71	48.8	
Secondary 1st cycle	226	51.8		35	52.6		142	50.4		49	53.2	
Secondary 2nd cycle	14	66.5					12	70.1		2	50.0	
Higher education	4	16.6					2	33.6		2	0.0	
Pregnancy status												
Currently pregnant	365	41.9	ns	121	39.6	ns	163	48.3	ns	81	41.3	ns
Ever pregnant but not currently	1,622	44.9		503	46.0		735	50.0		384	35.8	
Never pregnant	465	50.7		91	56.5		257	49.7		117	41.4	
Participation in income-generating activities												
Cash or combination of cash & in-kind	881	46.5	ns	308	44.6	ns	406	54.9	ns	167	39.9	ns
In-kind or unpaid	201	36.3		58	41.7		64	42.0		79	25.7	
Does not work	1,370	46.2		349	48.2		685	47.3		336	40.0	
Participation in income generating activities												
Does not participate in cash earning activities	1,571	44.8	ns	407	47.2	ns	749	47.0	*	415	36.9	ns
Participates in cash earning activities	881	46.5		308	44.6		406	54.9		167	39.9	
Household socio-demographic characteristics												
Gendered household type												
Both	2,293	45.0	ns	664	45.5	ns	1114	49.3	ns	515	37.6	ns
Female Only	96	47.0		33	46.7		25	60.9		38	39.2	
Male Only	60	57.9		17	74.1		15	48.9		28	37.5	
Child Only	3	9.2		1	0.0		1	100.0		1	0.0	
Household head sex												
Male	2,300	45.8	ns	671	46.2	ns	1108	50.1	ns	521	38.7	ns
Female	152	40.2		44	46.2		47	42.3		61	29.2	
Household head age												
17-24 years	102	45.9	ns	36	47.9	*	36	47.6	ns	30	37.6	ns
25-34 years	428	52.4		171	56.7		141	52.9		116	36.5	
35-44 years	743	43.1		206	42.8		339	51.5		198	34.5	
45+ years	1,179	43.6		302	41.8		639	48.1		238	40.9	
Household head educational level												
Never attended school	1,879	43.6	ns	570	45.2	ns	831	47.6	ns	478	34.8	ns
Preschool	28	45.8		2	100.0		25	33.5		1	0.0	
Primary	334	51.0		84	45.6		186	61.3		64	51.1	
Secondary 1st cycle	190	52.0		58	53.1		97	46.6		35	56.4	
Secondary 2nd cycle	16	81.9					13	89.2		3	66.5	
Higher education	5	62.6		1	100.0		3	20.2		1	0.0	
Number of adult females (18+) in household other than woman												
No other adult woman	941	44.6	ns	363	46.5	ns	265	51.1	ns	313	35.9	ns
One other adult female	882	46.4		242	47.6		464	48.7		176	38.5	
Two other adult females	416	44.4		84	39.6		265	48.8		67	47.0	
Three other adult females	133	49.3		23	56.9		89	47.8		21	36.4	

	Combined RFSA Areas			Girma			Hamzari			Wadata		
	No. of women	%	Sig.a	No. of women	%	Sig.a	No. of women	%	Sig.a	No. of women	%	Sig.a
Four or more other adult females	80	44.5		3	0.0		72	56.0		5	0.0	
Number of adult males in household												
No adult males	99	46.2	ns	34	45.5	ns	26	61.4	ns	39	38.5	ns
One adult male	1,609	46.0		521	47.0		661	50.9		427	38.5	
Two adult males	462	40.9		107	40.6		274	45.0		81	31.8	
Three adult males	178	49.3		38	46.5		113	50.6		27	53.9	
Four or more adult males	104	48.6		15	55.3		81	52.4		8	0.0	
Number of children under five												
None	368	51.7	ns	92	60.1	ns	155	51.3	ns	121	34.5	ns
One	701	46.6		213	45.4		271	56.9		217	40.8	
Two	732	43.7		243	42.3		318	52.9		171	37.0	
Three	333	45.3		92	49.5		197	43.9		44	29.0	
Four	189	38.1		46	36.5		123	41.2		20	34.1	
Five or more	129	38.3		29	37.0		91	36.8		9	63.3	
Number of children 5-17 years												
None	198	44.1	ns	79	45.6	ns	62	52.3	ns	57	33.9	ns
One	261	42.0		86	46.4		83	42.0		92	32.5	
Two	295	47.7		121	48.4		93	56.7		81	38.7	
Three	322	47.2		116	48.8		121	59.6		85	33.0	
Four	387	50.6		103	46.2		185	60.6		99	47.7	
Five or more	989	43.2		210	44.0		611	44.4		168	37.5	
Household food security												
Food consumption score groups												
Poor food consumption (0-21)	93	23.7	***	23	37.0	*	57	11.4	***	13	0.0	**
Borderline food consumption (21.5-35)	354	18.9		111	22.8		187	16.0		56	8.3	
Acceptable food consumption (35.5-112)	2,005	51.2		581	51.1		911	58.9		513	42.5	
Percent of harvest completed in the current season												
Did not harvest any crops in the current season	262	33.2	ns	27	24.8	ns	119	42.0	ns	116	31.3	ns
Less than 25 percent	1,221	46.2		333	47.3		537	47.9		351	42.4	
25 - 50 percent	630	47.0		211	46.9		313	58.9		106	29.4	
More than 50 percent	339	45.9		144	46.4		186	46.8		9	15.2	
Household agricultural status[1]												
Accessed at least one ag-related financial service (credit, savings, insurance)												
No	1,494	42.8	ns	369	43.9	ns	739	44.7	***	386	38.1	ns
Yes	958	49.1		346	48.7		416	58.5		196	36.8	
Took out a loan (ag credit, in cash or in-kind)												
No	1,782	44.9	ns	481	47.5	ns	826	45.7	**	475	37.5	ns
Yes	670	46.9		234	42.8		329	59.0		107	38.3	
Participated in ag-related savings scheme												
No	2,019	43.0	**	561	42.6	*	987	47.5	*	471	37.8	ns
Yes	433	54.6		154	56.7		168	65.5		111	36.9	
Insured ag production against loss (insurance)												
No	2,416	45.4	ns	703	46.3	ns	1140	49.8	ns	573	37.2	ns
Yes	36	44.7		12	39.0		15	36.8		9	66.2	
Raised at least one type of livestock[2]												
No	1,008	41.6	ns	256	42.8	ns	428	47.0	ns	324	35.2	ns
Yes	1,444	47.7		459	47.9		727	51.1		258	40.6	
Raised goats												
No	1,198	43.0	ns	293	45.1	ns	535	44.8	ns	370	37.8	ns
Yes	1,254	47.3		422	46.8		620	54.0		212	37.3	
Raised sheep												
No	1,816	40.4	***	538	39.6	***	798	46.8	ns	480	35.7	ns
Yes	636	58.9		177	64.2		357	55.0		102	46.3	
Raised poultry												
No	1,859	43.2	*	525	43.4	ns	875	47.0	*	459	37.6	ns

	Combined RFSA Areas			Girma			Hamzari			Wadata		
	No. of women	%	Sig.a	No. of women	%	Sig.a	No. of women	%	Sig.a	No. of women	%	;.a
Yes	593	52.2		190	54.2		280	57.7		123	38.0	
Used at least one improved crop management practice[3]												
No	140	35.9	ns	40	34.4	ns	27	14.5	*	73	43.7	ns
Yes	2,312	46.1		675	47.1		1128	50.5		509	36.8	
Dug zai pits												
No	2,250	44.1	*	676	46.0	ns	1004	45.4	**	570	37.5	ns
Yes	202	60.0		39	49.2		151	71.3		12	43.2	
Dug agri half-moons												
No	2,380	45.7	ns	694	46.9	*	1112	49.2	ns	574	37.7	ns
Yes	72	35.8		21	19.4		43	61.3		8	33.3	
Applied organic manure												
No	861	35.4	**	273	32.9	*	363	40.1	**	225	37.3	ns
Yes	1,591	50.6		442	53.5		792	53.6		357	37.8	
Applied phosphatic manure												
No	2,089	42.3	** *	620	43.8	**	939	43.8	**	530	36.8	ns
Yes	363	63.9		95	62.8		216	69.7		52	47.5	
Applied compost												
No	1,757	43.7	ns	467	46.8	ns	770	43.9	*	520	37.3	ns
Yes	695	49.4		248	45.1		385	58.6		62	41.4	
Applied microdoses of fertilizer												
No	2,268	44.8	ns	682	45.4	ns	1018	49.5	ns	568	37.7	ns
Yes	184	55.6		33	64.4		137	50.8		14	33.7	
Controlled sida cordifolia growth												
No	2,045	43.9	ns	562	47.8	ns	913	41.2	***	570	37.3	ns
Yes	407	53.4		153	39.3		242	79.4		12	56.2	
Performed at least three weedings												
No	1,641	47.2	ns	406	54.8	***	746	41.0	**	489	37.3	ns
Yes	811	42.1		309	33.1		409	62.6		93	39.4	
Delayed seedlings until 3rd/4th rains to control pests												
No	2,174	46.1	ns	632	48.2	ns	964	49.0	ns	578	37.8	ns
Yes	278	39.5		83	33.2		191	54.1		4	23.5	
Sowed after useful rain												
No	1,448	43.5	ns	352	49.1	ns	655	36.4	***	441	38.2	ns
Yes	1,004	48.3		363	42.3		500	66.4		141	35.8	
Performed crop association												
No	1,016	44.4	ns	309	47.7	ns	300	40.6	ns	407	39.5	ns
Yes	1,436	46.2		406	44.8		855	52.8		175	34.0	
Performed crop rotation												
No	2,289	45.1	ns	687	46.6	ns	1035	47.3	*	567	38.2	ns
Yes	163	51.5		28	34.2		120	66.1		15	16.0	
Used seed treatment w/fungicides												
No	2,148	43.4	** *	674	44.7	**	937	43.8	***	537	39.2	ns
Yes	304	63.2		41	69.9		218	74.1		45	23.7	
Used improved seeds												
No	2,190	44.8	ns	630	47.0	ns	987	45.8	***	573	38.1	ns
Yes	262	49.8		85	41.6		168	67.7		9	9.8	
Used climate information												
No	2,406	45.3	ns	709	46.5	*	1115	48.9	*	582	37.6	ns
Yes	46	49.6		6	27.2		40	80.9				
Used at least one type of improved post harvest practice/technique[4]												
No	1,171	40.3	*	461	44.2	ns	372	31.1	***	338	34.6	ns
Yes	1,281	51.7		254	50.1		783	59.0		244	41.2	
Used local made storage												
No	1,763	43.7	ns	640	46.2	ns	685	41.7	*	438	36.7	ns

	Combined RFSA Areas			Girma			Hamzari			Wadata		
	No. of women	%	Sig.a	No. of women	%	Sig.a	No. of women	%	Sig.a	No. of women	%	;.a
Yes	689	51.6		75	46.2		470	59.4		144	40.0	
Used sealed/airtight bags												
No	1,724	42.2	**	627	44.0	*	611	40.1	**	486	38.5	ns
Yes	728	57.0		88	60.8		544	61.3		96	33.6	
Used community storage facility												
No	2,271	44.2	ns	674	45.7	ns	1050	47.0	*	547	36.4	
Yes	181	59.1		41	52.1		105	69.5		35	58.6	
Used solar/fuel-powered dryers												
No	2,410	45.0	***	704	45.8	**	1131	49.4	ns	575	37.1	
Yes	42	73.1		11	67.6		24	78.5		7	91.4	
Used seed/grain treatment pest control tech.												
No	2,417	45.4	ns	700	46.5	ns	1136	49.5	ns	581	37.5	
Yes	35	43.2		15	32.9		19	58.9		1	100.0	
Used agrochemical grain treatment												
No	2,366	45.4	ns	701	46.2	ns	1095	49.2	ns	570	38.7	
Yes	86	45.0		14	47.1		60	56.4		12	6.9	
Used triple bags												
No	2,272	44.7	ns	706	45.3	*	1012	48.2	ns	554	38.5	
Yes	180	57.1		9	86.5		143	59.0		28	25.6	
Used other post-harvest handling/storage practices												
No	2,244	44.9	ns	597	45.3	ns	1090	49.5	ns	557	38.3	
Yes	208	48.9		118	50.6		65	52.3		25	19.8	
Used at least one improved livestock mgmt. practice [5]												
No	1,483	41.9	**	395	43.1	ns	649	44.4	*	439	36.9	
Yes	969	50.2		320	49.6		506	56.3		143	39.7	
Impact of COVID-19 on household livelihood/food security												
Household livelihood was impacted by COVID-19												
No	443	32.8	***	137	38.5	ns	139	26.9	***	167	24.2	
Yes	2,009	48.8		578	48.3		1016	53.9		415	42.7	
Household food security was impacted by COVID-19												
No	320	33.4	***	108	40.6	ns	67	28.7	**	145	21.6	
Yes	2,132	47.5		607	47.2		1088	51.3		437	42.5	
Household resilience capacities												
Participation in group-based savings, microfinance or lending programs												
No	2,290	44.0	**	629	44.0	*	1094	49.1	ns	567	37.3	
Yes	162	57.7		86	57.4		61	63.0		15	51.3	
Participation in group-based savings programs												
No	2,329	44.1	ns	643	44.4	ns	1116	48.9	*	570	37.3	
Yes	123	59.2		72	57.9		39	78.4		12	53.9	
Participation in group-based credit programs												
No	2,382	44.7	ns	684	45.1	ns	1122	49.6	ns	576	37.5	
Yes	70	60.0		31	61.9		33	51.6		6	51.6	
Participation in social assistance programs												
Participation in BHA RFSAs												
No (indirect participant)	1,145	41.5	ns	394	43.4	ns	526	47.1	ns	225	24.9	
Yes (direct participant)	1,307	49.8		321	50.0		629	52.5		357	46.5	

	Combined RFSA Areas			Girma			Hamzari			Wadata		
	No. of women	%	Sig.a	No. of women	%	Sig.a	No. of women	%	Sig.a	No. of women	%	Sig.a
Receipt of food rations (any donor/program)												
No	1,823	43.2	*	615	43.5	*	862	48.8	ns	346	32.7	**
Yes	629	52.7		100	57.2		293	53.1		236	45.8	
Participation in nutrition trainings/meetings (any donor/program)												
No	1,740	42.6	*	473	45.4	ns	888	47.2	ns	379	27.9	***
Yes	712	51.7		242	47.7		267	58.3		203	57.2	
Participation in agriculture-related trainings/meetings (any donor/program)												
No	1,621	41.7	*	441	42.4	ns	793	46.5	ns	387	33.4	*
Yes	831	51.8		274	51.5		362	57.3		195	46.3	
Food rations by RFSA participation status												
Did not receive any food rations	1,823	43.2	*	615	43.5	ns	862	48.8	ns	346	32.7	ns
Received food rations - direct RFSA participant[6]	467	51.6		49	59.4		211	50.6		207	46.6	
Received food rations - indirect RFSA participant[7]	162	54.4		51	55.5		82	56.8		29	39.3	
Nutrition trainings/meetings by RFSA participation status												
Did not participate in any nutrition trainings/meetings	1,740	42.6	ns	473	45.4	ns	888	47.2	ns	379	27.9	***
Participated in nutrition trainings/meetings - direct RFSA participant[6]	589	51.4		168	45.0		231	59.3		190	58.5	
Participated in nutrition trainings/meetings -indirect RFSA participant[7]	123	52.5		74	53.2		36	54.4		13	36.2	
Agriculture trainings/meetings by RFSA participation status												
Did not participate in any ag trainings/meetings	1,621	41.7	ns	441	42.4	ns	793	46.5	ns	387	33.4	*
Participated in agri. trainings and meetings - direct RFSA participant[6]	653	51.2		193	49.8		288	56.4		172	49.5	
Participated in agri. trainings/meetings -indirect RFSA participant[7]	178	53.3		81	54.9		74	60.3		23	23.4	

NOTES: A woman of reproductive age is considered to consume a minimum dietary diversity if she consumed at least five of 10 specific food groups during the previous day and night. Sample restricted to women with data available across all

Results not statistically reliable where n<30. Provided for illustrative purposes.

[1] Household agriculture status measures were calculated by aggregating the results of farmers to the household level. A household is considered to adopt a practice if at least one farmer in the household reported the practice.

[2] A household is considered to raise at least one livestock if at least one farmer reported raising any of the three livestock of interest (goats, sheep, and poultry).

[3] A household is considered to be using at least one improved crop management practices if at least one farmer reported using any of the promoted practices for any one of the three crops of interest (sorghum, millet, cowpeas and peanuts).

[4] A household is considered to be using at least one improved post-harvest practice if at least one farmer reported using any of the promoted practices for any one of the three crops of interest (sorghum, millet, cowpeas and peanuts).

[5] A household is considered to be using at least one improved livestock management practices if at least one farmer reported using any of the promoted practices for any one of the three livestock of interest (goats, sheep, or poultry).

[6] Includes households that reported participating in BHA RFSA activities and also reported receiving food rations. Because households that participated in RFSA activities may also be participating in other donor activities, these estimates are only proxy measures of participation in sector-specific RFSA interventions.

[7] Includes households that reported participating in BHA RFSA activities and also reported participating in nutrition trainings/meetings. Because households that participated in RFSA activities may also be participating in other donor activities, these estimates are only proxy measures of participation in sector-specific RFSA interventions.

[8] Includes households that reported participating in BHA RFSA activities and also reported participating in agriculture trainings or meetings. Because households that participated in RFSA activities may also be participating in other donor activities, these estimates are only proxy measures of participation in sector-specific RFSA interventions.

Table 69: A7.10a. Multivariate logistic regression of women's minimum dietary diversity (MDD-W), combined RFSA areas [Baseline Study, Niger 2020]

Variables	Model 1 OR	Model 2 OR	Model 3 OR	Model 4 OR
Women's characteristics				
Women's age (ref.: 15-19 years)				
20 - 29 years	1.053	1.056	1.087	1.097
30-49 years	0.792	0.806	0.784	0.775
Women's education (ref.: none or less than primary)				
Primary	0.884	0.877	0.954	0.940
Secondary or higher	0.842	0.848	0.884	0.864
Pregnancy status (ref.: currently pregnant)				
Ever pregnant but not currently	1.519*	1.516*	1.454+	1.410
Never pregnant	1.749*	1.755*	1.619+	1.560+
Participation in income generating activities (ref.: does not participate in cash-earning activities)	1.049	1.038	1.132	1.143
Household socio-demographic characteristics				
Gendered household type (ref.: Female and Male Adults)				
Female Adult Only	2.627*	2.719*	4.037**	3.675**
Male Adult Only	2.000	2.031	2.265	2.335
Female-headed household (ref.: male-headed household)	0.493	0.486+	0.378*	0.417*
Age of household head (ref.: 18-24 years)				
25-34 years	1.340	1.313	1.370	1.373
35-44 years	1.173	1.145	1.382	1.385
45+ years	1.297	1.256	1.472	1.438
Education of household head				
Primary or higher (ref.: primary or none)	1.218	1.202	1.375	1.354
Household size (1-32)	0.973	0.975	0.976	0.976
COVID-19 impact on household (ref.: was not impacted)				
HH livelihood impacted by COVID-19	2.788***	2.809***	2.430**	2.507**
HH food security impacted by COVID-19	0.834	0.846	0.775	0.696
Household food consumption				
Food consumption score group (ref.: poor FCS)				
Borderline food consumption (21.5-35)	0.640	0.653	0.506	0.531
Acceptable food consumption (35.5-112)	2.839	2.860+	2.423+	2.465+
Household harvested crops in current season (ref.: did not harvest any crops)				
Harvested less than 25 percent	1.537	1.500	1.554	1.502
Harvest 25 - 50 percent	1.408	1.374	1.362	1.325
Harvest more than 50 percent	1.057	1.055	1.103	1.093
Household livestock holdings (ref.: did not raise livestock)				
Raised goats	0.888	0.865	0.778	0.798
Raised sheep	1.760*	1.720*	1.690*	1.676*
Raised poultry	1.395+	1.367	1.285	1.317
Household use of or access to financial services				
Took out an agricultural loan (ref.: did not take out an ag-loan)		1.027	1.001	0.956
Participated in an agricultural savings scheme (ref.: did not participate in ag-savings scheme)		1.291	1.404	1.359
Participated in group-based saving programs (ref.: did not participate)		1.166	0.844	0.817
Participated in group-based credit programs (ref.: did not participate)		0.919	1.284	1.249
Household adoption of targeted improved crop practices[1]				
Dug zai pits			1.369	1.364
Dug agri half-moons			0.435*	0.457+
Applied organic manure			1.677**	1.675**
Applied phosphatic manure			1.233	1.180
Applied compost			0.944	0.917
Applied microdoses of fertilizer			0.898	0.920
Controlled sida cordifolia growth			1.281	1.253
Performed at least 3 weedings			0.437**	0.440**
Delayed seedlings until 3rd/4th rains to control pests			0.712	0.769
Sowed after useful rain			1.301	1.277
Performed crop association			0.840	0.824
Performed crop rotation			0.965	0.986
Used Seed treatment w/fungicides			2.151+	2.246*
Used improved seeds			0.764	0.789
Used climate information			1.332	1.348
Household adoption of targeted improved post-harvest handling and storage practices[1]				
Used local made storage			0.683	0.680
Used sealed/airtight bags			1.479	1.451
Used community storage facility			1.443	1.406
Used solar/fuel-powered dryers			2.745+	2.831*
Used seed/grain treatment pest control technique			0.795	0.797
Used agrochemical grain treatment			0.521+	0.536
Used triple bags			1.086	1.089
Household adoption of targeted improved post-harvest handling and storage practices[1]				
Used at least one improved livestock mgmt practice			1.159	1.136
Household participation in social assistance programs				
Participated in a BHA RFSA (ref.: HH did not participate in a RFSA)				1.175
Received food rations - any donor (ref.: did not receive food rations)				1.116
Participated in nutrition trainings/meetings - any donor (ref.: did not participate)				1.324
Participated in agriculture-related trainings/meetings - any donor (ref.: did not participate)				1.028
Constant	0.156**	0.135**	0.187**	0.170**
Number of women 15-49 years	2,449	2,449	2,449	2,449

* p<0.05, ** p<0.01, *** p<0.001; † < 0.1

NOTES: Analytical sample was restricted to women 15-49 with data available across all covariates. Child-only households (i.e., where there are no members 18years or older; n=3) are excluded.

All models include village dummies. Coefficients not shown. The model for the combined RFSA areas does not pass the misspecification and goodness of fittests.

[1] Reference category includes households that did not adopt the targeted improved practice.

Table 70: A7.10b. Multivariate logistic regression of women's minimum dietary diversity (MDD-W), Girma RFSA areas [Baseline Study, Niger 2020]

Variables	Model 1 OR	Model 2 OR	Model 3 OR	Model 4 OR
Women's characteristics				
Women's age (ref.: 15-19 years)				
20 - 29 years	1.049	1.055	1.301	1.269
30-49 years	0.808	0.819	0.837	0.796
Women's education (ref.: none or less than primary)				
Primary	0.829	0.835	0.868	0.872
Secondary or higher	0.942	0.942	1.019	1.020
Pregnancy status (ref.: currently pregnant)				
Ever pregnant but not currently	2.057*	2.041*	2.083+	2.067+
Never pregnant	3.060*	3.103*	2.931*	2.781*
Participation in income generating activities (ref.: does not participate in cash-earning activities)	1.091	1.096	1.251	1.239
Household socio-demographic characteristics				
Gendered household type (ref.: Female and Male Adults)				
Female Adult Only	2.812	2.963	3.175	3.386
Male Adult Only	6.414	6.535	6.559	6.091
Female-headed household (ref.: male-headed household)	0.604	0.601	0.463	0.432
Age of household head (ref.: 18-24 years)				
25-34 years	2.113	2.029	1.656	1.735
35-44 years	1.290	1.260	1.283	1.365
45+ years	1.488	1.407	1.486	1.548
Education of household head				
Primary or higher (ref.: primary or none)	1.011	0.986	1.243	1.240
Household size (1-28)	1.003	1.005	0.988	0.984
COVID-19 impact on household (ref.: was not impacted)				
HH livelihood impacted by COVID-19	3.482**	3.615*	2.763*	2.619*
HH food security impacted by COVID-19	0.670	0.661	0.523*	0.521+
Household food consumption				
Food consumption score group (ref.: poor FCS)				
Borderline food consumption (21.5-35)	0.417	0.429	0.390	0.395
Acceptable food consumption (35.5-112)	1.444	1.468	1.658	1.610
Household harvested crops in current season (ref.: did not harvest any crops)				
Harvested less than 25 percent	1.736	1.581	1.590	1.554
Harvest 25 - 50 percent	1.222	1.086	1.217	1.181
Harvest more than 50 percent	0.874	0.837	0.949	0.906
Household livestock holdings (ref.: did not raise livestock)				
Raised goats	0.752	0.729	0.574	0.602
Raised sheep	2.417*	2.352*	2.322**	2.334**
Raised poultry	1.526	1.503	1.337	1.276
Household use of or access to financial services				
Took out an agricultural loan (ref.: did not take out an ag-loan)		1.152	1.051	1.007
Participated in an agricultural savings scheme (ref.: did not participate in ag-savings scheme)		1.261	1.387	1.369
Participated in group-based saving programs (ref.: did not participate)		1.129	1.055	1.039
Participated in group-based credit programs (ref.: did not participate)		0.795	1.562	1.488
Household adoption of targeted improved crop practices[1]				
Dug zai pits			1.576	1.524
Dug agri half-moons			0.121**	0.133**
Applied organic manure			2.038*	1.997*
Applied phosphatic manure			0.859	0.818
Applied compost			0.776	0.738
Applied microdoses of fertilizer			2.768	2.851
Controlled sida cordifolia growth			0.937	0.959
Performed at least 3 weedings			0.327**	0.341**
Delayed seedlings until 3rd/4th rains to control pests			0.593	0.593
Sowed after useful rain			1.037	1.039
Performed crop association			0.946	0.918
Performed crop rotation			1.198	1.182
Used Seed treatment w/fungicides			5.972*	6.174*
Used improved seeds			0.595	0.587
Used climate information			2.250	2.220
Household adoption of targeted improved post-harvest handling and storage practices[1]				
Used local made storage			0.245**	0.239**
Used sealed/airtight bags			3.712***	3.806***
Used community storage facility			0.400	0.373
Used solar/fuel-powered dryers			1.170	1.136
Used seed/grain treatment pest control technique			0.211	0.202+
Used agrochemical grain treatment			0.345	0.390
Used triple bags			31.884***	40.214***
Household adoption of targeted improved post-harvest handling and storage practices[1]				
Used at least one improved livestock mgmt practice			1.473	1.477
Household participation in social assistance				
Participated in a BHA RFSA (ref.: HH did not participate in a RFSA)				1.276
Received food rations - any donor (ref.: did not receive food rations)				0.932
Participated in nutrition trainings/meetings - any donor (ref.: did not participate)				0.861
Participated in agriculture-related trainings/meetings - any donor (ref.: did not participate)				1.295
Constant	0.122*	0.115*	0.237	0.230
Number of women 15-49 years	714	714	714	714

Table 71: A7.10c. Multivariate logistic regression of women's minimum dietary diversity (MDD-W), Hamzari RFSA areas [Baseline Study, Niger 2020]

Variables	Model 1 OR	Model 2 OR	Model 3 OR	Model 4 OR
Women's characteristics				
Women's age (ref.: 15-19 years)				
20 - 29 years	1.142	1.146	0.958	0.930
30-49 years	0.652+	0.663+	0.586*	0.563*
Women's education (ref.: none or less than primary)				
Primary	0.686	0.686	0.612+	0.600+
Secondary or higher	0.570	0.579	0.515	0.495
Pregnancy status (ref.: currently pregnant)				
Ever pregnant but not currently	1.238	1.194	1.259	1.224
Never pregnant	1.159	1.146	1.125	1.043
Participation in income generating activities (ref.: does not participate in cash-earning activities)	1.081	1.074	1.290	1.270
Household socio-demographic characteristics				
Gendered household type (ref.: Female and Male Adults)				
Female Adult Only	2.651	2.790	1.901	1.799
Male Adult Only	1.060	1.098	1.823	1.987
Female-headed household (ref.: male-headed household)	0.427	0.429	0.453	0.471
Age of household head (ref.: 18-24 years)				
25-34 years	0.857	0.889	1.435	1.449
35-44 years	1.355	1.348	2.086	2.028
45+ years	1.399	1.336	1.931	1.941
Education of household head				
Primary or higher (ref.: primary or none)	1.660	1.567	1.655	1.636
Household size (1-32)	0.956*	0.961+	0.934*	0.930**
COVID-19 impact on household (ref.: was not impacted)				
HH livelihood impacted by COVID-19	2.655*	2.721*	1.735	1.817
HH food security impacted by COVID-19	1.162	1.135	1.127	1.066
Household food consumption				
Food consumption score group (ref.: poor FCS)				
Borderline food consumption (21.5-35)	1.569	1.438	1.134	1.198
Acceptable food consumption (35.5-112)	8.894***	8.302**	8.089***	8.090***
Household harvested crops in current season (ref.: did not harvest any crops)				
Harvested less than 25 percent	0.884	0.876	1.111	1.147
Harvest 25 - 50 percent	1.605	1.576	1.494	1.529
Harvest more than 50 percent	1.330	1.287	1.117	1.175
Household livestock holdings (ref.: did not raise livestock)				
Raised goats	1.333	1.291	1.165	1.193
Raised sheep	0.976	0.969	0.963	0.983
Raised poultry	1.141	1.146	1.006	0.985
Household use of or access to financial services				
Took out an agricultural loan (ref.: did not take out an ag-loan)		0.765	1.104	1.067
Participated in an agricultural savings scheme (ref.: did not participate in ag-savings scheme)		1.543	1.194	1.162
Participated in group-based saving programs (ref.: did not participate)		1.966	2.631	2.649
Participated in group-based credit programs (ref.: did not participate)		1.437	1.882	1.321
Household adoption of targeted improved crop practices[1]				
Dug zai pits			1.281	1.311
Dug agri half-moons			1.486	1.456
Applied organic manure			2.072**	2.069**
Applied phosphatic manure			1.358	1.357
Applied compost			1.365	1.278
Applied microdoses of fertilizer			0.360+	0.380+
Controlled sida cordifolia growth			3.580***	3.637***
Performed at least 3 weedings			0.395+	0.364*
Delayed seedlings until 3rd/4th rains to control pests			0.941	1.072
Sowed after useful rain			1.959+	1.995+
Performed crop association			1.188	1.136
Performed crop rotation			0.917	0.835
Used Seed treatment w/fungicides			2.903**	3.050**
Used improved seeds			0.498+	0.521
Used climate information			1.614	1.606
Household adoption of targeted improved post-harvest handling and storage practices[1]				
Used local made storage			0.683	0.657
Used sealed/airtight bags			0.843	0.836
Used community storage facility			3.334**	3.008*
Used solar/fuel-powered dryers			6.658**	6.893**
Used seed/grain treatment pest control technique			0.809	0.736
Used agrochemical grain treatment			0.938	0.904
Used triple bags			0.937	0.990
Household adoption of targeted improved post-harvest handling and storage practices[1]				
Used at least one improved livestock mgmt practice			1.333	1.284
Household participation in social assistance				
Participated in a BHA RFSA (ref.: HH did not participate in a RFSA)				1.119
Received food rations - any donor (ref.: did not receive food rations)				1.534
Participated in nutrition trainings/meetings - any donor (ref.: did not participate)				1.089
Participated in agriculture-related trainings/meetings - any donor (ref.: did not participate)				1.188
Constant	0.066*	0.073+	0.018**	0.015**
Number of women 15-49 years	1,154	1,154	1,154	1,154

* p<0.05, ** p<0.01, *** p<0.001; † < 0.1

NOTES: Analytical sample was restricted to women 15-49 with data available across all covariates. Child-only households (i.e., where there are no members 18 years or older; n=3) are excluded.

All models include village dummies. Coefficients not shown.

[1] Reference category includes households that did not adopt the targeted improved practice.

Table 72: Table A7.10d. Multivariate logistic regression of women's minimum dietary diversity (MDD-W), Wadata RFSA areas [Baseline Study, Niger 2020]

Variables	Model 1 OR	Model 2 OR	Model 3 OR	Model 4 OR
Women's characteristics				
Women's age (ref.: 15-19 years)				
20 - 29 years	0.749	0.74	0.645	0.646
30-49 years	0.743	0.745	0.698	0.636
Women's education (ref.: none or less than primary)				
Primary	1.356	1.357	1.187	1.247
Secondary or higher	1.341	1.34	1.528	1.531
Pregnancy status (ref.: currently pregnant)				
Ever pregnant but not currently	0.933	0.926	1.046	1.006
Never pregnant	0.709	0.708	0.602	0.512
Participation in income generating activities (ref.: does not participate in cash-earning activities)	1.131	1.151	0.939	1.002
Household socio-demographic characteristics				
Gendered household type (ref.: Female and Male Adults)				
Female Adult Only	3.546	3.849	5.001+	5.760+
Male Adult Only	0.765	0.768	0.692	0.843
Female-headed household (ref.: male-headed household)	0.316+	0.306+	0.259+	0.231+
Age of household head (ref.: 18-24 years)				
25-34 years	0.75	0.769	0.459	0.45
35-44 years	1.014	1.029	0.635	0.689
45+ years	1.125	1.142	0.704	0.88
Education of household head				
Primary or higher (ref.: primary or none)	1.408	1.434	1.666	1.566
Household size (2-22)	0.974	0.975	1.007	1.001
COVID-19 impact on household (ref.: was not impacted)				
HH livelihood impacted by COVID-19	1.422	1.347	1.249	1.34
HH food security impacted by COVID-19	1.549	1.628	1.556	1.434
Household food consumption				
Food consumption score group (ref.: poor FCS)				
Borderline food consumption (21.5-35)	0.103***	0.101***	0.078***	0.074***
Acceptable food consumption (35.5-112)	-	-	-	-
Household harvested crops in current season (ref.: did not harvest any crops)				
Harvested less than 25 percent	1.883	1.889	2.012	1.836
Harvest 25 - 50 percent	1.288	1.292	0.998	1.091
Harvest more than 50 percent	0.524	0.516	0.601	0.484
Household livestock holdings (ref.: did not raise livestock)				
Raised goats	0.711	0.709	0.588	0.602
Raised sheep	1.578	1.6	2.164+	2.030+
Raised poultry	1.201	1.202	1.092	1.054
Household use of or access to financial services				
Took out an agricultural loan (ref.: did not take out an ag-loan)		1.031	1.039	1.17
Participated in an agricultural savings scheme (ref.: did not participate in ag-savings scheme)		1.091	1.396	1.453
Participated in group-based saving programs (ref.: did not participate)		0.812	1.177	0.992
Participated in group-based credit programs (ref.: did not participate)		0.689	0.228	0.223
Household adoption of targeted improved crop practices[2]				
Dug zai pits			3.245+	2.991+
Dug agri half-moons			0.844	0.949
Applied organic manure			1.669	1.807
Applied phosphatic manure			1.495	1.29
Applied compost			1.399	1.295
Applied microdoses of fertilizer			0.459	0.441
Controlled sida cordifolia growth			1.55	1.23
Performed at least 3 weedings			3.233*	3.348*
Delayed seedlings until 3rd/4th rains to control pests			0.17	0.244
Sowed after useful rain			2.267+	1.85
Performed crop association			0.723	0.73
Performed crop rotation			0.32	0.337
Used Seed treatment w/fungicides			0.132***	0.161***
Used improved seeds			0.068+	0.054+
Used climate information			-	-
Household adoption of targeted improved post-harvest handling and storage practices[2]				
Used local made storage			1.466	1.701
Used sealed/airtight bags			0.390*	0.342*
Used community storage facility			1.883	1.526
Used solar/fuel-powered dryers			141.804*	169.686*
Used seed/grain treatment pest control technique			-	-
Used agrochemical grain treatment			0.293	0.321
Used triple bags			0.402	0.433
Household adoption of targeted improved post-harvest handling and storage practices[2]				
Used at least one improved livestock mgmt practice			1.559	1.677
Household participation in social assistance				
Participated in a BHA RFSA (ref.: HH did not participate in a RFSA)				1.897
Received food rations - any donor (ref.: did not receive food rations)				0.9
Participated in nutrition trainings/meetings - any donor (ref.: did not participate)				2.044
Participated in agriculture-related trainings/meetings - any donor (ref.: did not participate)				0.494+
Constant	0.929	0.887	1.712	1.106
Number of women 15-49 years	568	568	567	567

* p<0.05, ** p<0.01, *** p<0.001; † < 0.1

NOTES: Analytical sample was restricted to women 15-49 with data available across all covariates. Child-only households (i.e., where there are no members 18 years or older; n=3) are excluded.

All models include village dummies. Coefficients not shown.

[1] Reference category includes households that did not adopt the targeted improved practice.

Table 73: A7.11. Percentage of children 6-23 months achieving a diet of minimum diversity by individual and household characteristics[Baseline Study, Niger 2020]

	Combined RFSA Areas			Girma			Hamzari			Wadata		
	No. of Children	%	Sig.a	No. of Children	%	Sig.a	No. of Children	%	Sig.a	No. of Children	%	Sig.a
All children 6-23 months	**729**	**42.8**		**260**	**37.4**		**305**	**54.5**		**164**	**47.0**	
Child characteristics												
Sex												
Male	372	41.9	ns	128	36.2	ns	151	54.8	ns	93	46.4	ns
Female	357	43.8		132	38.6		154	54.1		71	47.8	
Age												
6-8 months	139	27.1	**	55	21.9	ns	53	39.0	ns	31	36.9	ns
9-11 months	83	48.3		31	43.6		31	59.7		21	49.9	
12-17 months	301	51.7		101	47.4		138	60.8		62	52.5	
18-23 months	206	38.6		73	32.8		83	49.2		50	44.7	
Household socio-demographic characteristics												
Gendered household type												
Both	680	41.9	ns	243	36.2	ns	290	54.3	ns	147	45.7	ns
Female Only	29	59.9		12	59.9		10	54.5		7	66.4	
Male Only	20	43.6		5	25.4		5	61.1		10	52.3	
Child Only												
Household head sex												
Male	694	41.9	ns	247	35.8	ns	293	54.5	ns	154	46.7	ns
Female	35	58.3		13	62.4		12	52.6		10	51.1	
Household head age												
18-24 years	45	41.5	ns	21	39.8	ns	13	49.7	ns	11	40.5	ns
25-34 years	161	38.0		61	33.0		55	58.5		45	38.0	
35-44 years	292	48.6		107	44.5		120	56.7		65	52.1	
45+ years	231	39.0		71	30.4		117	51.1		43	49.7	
Household head educational level												
Never attended school	541	40.7	ns	203	36.8	ns	202	48.0	*	136	45.8	ns
Preschool	4	74.3		...	...		4	74.3				
Primary	123	48.3		33	31.5		70	74.6		20	56.3	
Secondary 1st cycle	58	54.4		24	52.7		27	58.6		7	56.4	
Secondary 2nd cycle	3	41.1		....	....		2	100.0		1	0.0	
Higher education	....	....		....	....		....	....		....	....	
Number of adult females in household												
One adult female or none	373	47.5	ns	162	43.9	*	97	62.5	ns	114	49.5	ns
Two adult females	240	38.9		70	33.2		129	49.9		41	37.8	
Three adult females	80	31.9		22	16.8		49	50.6		9	63.5	
Four or more adult females	36	34.1		6	9.3		30	54.0				
Number of adult males in household												
One adult male or none	573	43.5	ns	224	39.3	ns	210	54.5	ns	139	46.5	ns
Two adult males	95	44.0		27	33.8		50	55.4		18	57.8	
Three adult males	37	42.2		5	26.1		27	47.6		5	47.1	
Four or more adult males	24	17.6		4	0.0		18	68.6		2	0.0	
Number of children under five other than child												
None	163	50.0	ns	54	44.1	ns	51	75.1	*	58	47.9	ns
One other child under five	289	48.1		120	43.7		99	61.4		70	49.5	
Two other children under five	133	39.8		37	35.2		72	44.1		24	46.5	
Three other children under five	85	29.1		27	22.5		51	42.8		7	22.1	
Four or more other children under five	59	21.7		22	15.1		32	37.3		5	46.7	
Number of children 5-17 years												
None	97	51.7	ns	45	52.0	ns	27	67.2	ns	25	39.9	ns

	Combined RFSA Areas			Girma			Hamzari			Wadata		
	No. of Children	%	Sig.a	No. of Children	%	Sig.a	No. of Children	%	Sig.a	No. of Children	%	Sig.a
One child	96	52.7		38	51.2		25	57.9		33	54.4	
Two children	115	44.3		50	36.7		32	65.8		33	52.3	
Three children	92	34.9		40	31.7		29	42.1		23	42.0	
Four children	103	41.7		25	24.0		55	60.8		23	38.7	
Five or more children	226	37.0		62	28.9		137	47.5		27	51.2	
Household food security												
Food consumption score groups												
Poor food consumption (0-21)	39	33.3	ns	14	39.2	ns	23	23.2	***	2	0.0	**
Borderline food consumption (21.5-35)	125	31.1		43	33.4		67	34.5		15	5.8	
Acceptable food consumption (35.5-112)	565	45.8		203	37.9		215	64.7		147	51.2	
Household harvested crops in the current season												
Did not harvest any crops in the current season	76	33.1	ns	12	32.7	ns	27	38.6	ns	37	30.5	ns
Less than 25 percent	364	44.8		116	36.0		151	54.7		97	52.6	
25 - 50 percent	195	45.3		84	41.7		83	63.1		28	44.9	
More than 50 percent	94	36.9		48	33.2		44	50.8		2	50.0	
Household agricultural status[1]												
Accessed at least one ag-related financial service (credit, savings, insurance)												
No	452	38.3	ns	139	29.5	*	209	52.5	ns	104	45.0	ns
Yes	277	49.2		121	46.5		96	58.6		60	50.6	
Took out a loan (ag credit, in cash or in-kind)												
No	547	41.5	ns	185	36.3	ns	230	52.3	ns	132	46.0	ns
Yes	182	46.9		75	40.6		75	60.4		32	51.7	
Participated in agri.-related savings scheme												
No	596	39.9	*	201	32.6	*	265	53.0	ns	130	45.0	ns
Yes	133	53.4		59	51.2		40	65.7		34	54.5	
Insured ag production against loss (insurance)												
No	717	42.4	ns	255	36.6	ns	300	54.5	ns	162	47.0	ns
Yes	12	67.3		5	73.1		5	50.9		2	50.0	
Raised at least one type of livestock[2]												
No	290	37.0	ns	93	24.4	*	107	56.2	ns	90	44.3	ns
Yes	439	46.1		167	42.9		198	53.4		74	50.7	
Raised goats												
No	342	38.7	ns	111	29.1	ns	129	53.4	ns	102	43.5	ns
Yes	387	45.9		149	41.8		176	55.3		62	53.5	
Raised sheep												
No	559	39.0	**	204	31.1	***	220	57.2	ns	135	45.2	ns
Yes	170	55.9		56	60.1		85	47.5		29	55.0	
Raised poultry												
No	555	40.7	ns	193	33.7	ns	239	53.8	ns	123	46.8	ns
Yes	174	49.3		67	47.6		66	57.0		41	47.7	
Used at least one improved crop management practice[3]												
No	38	33.8	ns	11	25.1	ns	6	28.9	ns	21	44.5	ns
Yes	691	43.3		249	37.9		299	55.1		143	47.3	
Dug zai pits												
No	671	41.7	ns	250	36.7	ns	261	51.6	*	160	47.5	ns
Yes	58	56.5		10	48.1		44	68.4		4	30.8	
Dug agri half-moons												
No	709	42.5	ns	248	37.2	ns	298	53.6	ns	163	46.5	ns
Yes	20	50.2		12	40.4		7	84.3		1	100.0	
Applied organic manure												
No	275	27.3	***	98	17.2	***	112	45.5	*	65	38.3	ns
Yes	454	51.7		162	48.8		193	59.5		99	52.3	
Applied phosphatic manure												

	Combined RFSA Areas			Girma			Hamzari			Wadata		
	No. of Children	%	Sig.a	No. of Children	%	Sig.a	No. of Children	%	Sig.a	No. of Children	%	Sig.a
No	631	40.2	*	214	32.3	*	272	54.8	ns	145	46.6	ns
Yes	98	56.9		46	58.9		33	51.8		19	50.9	
Applied compost												
No	533	47.4	*	159	44.7	*	224	54.5	ns	150	47.3	ns
Yes	196	31.9		101	24.5		81	54.3		14	42.3	
Applied microdoses of fertilizer												
No	679	42.3	ns	248	36.7	ns	269	54.6	ns	162	47.0	ns
Yes	50	52.8		12	52.3		36	53.3		2	50.0	
Controlled sida cordifolia growth												
No	616	44.3	ns	205	41.1	***	252	49.9	**	159	47.1	ns
Yes	113	34.9		55	21.4		53	76.8		5	40.9	
Performed at least three weedings												
No	495	44.2	ns	151	41.0	ns	208	51.6	ns	136	45.3	ns
Yes	234	40.1		109	31.3		97	59.3		28	56.2	
Delayed seedlings at 3rd/4th rains to control pests												
No	645	42.8	ns	227	37.9	ns	256	52.5	ns	162	47.0	ns
Yes	84	42.9		33	33.8		49	65.6		2	49.5	
Sowed after useful rain												
No	420	42.3	ns	130	37.8	ns	172	49.3	*	118	48.2	ns
Yes	309	43.6		130	36.7		133	61.5		46	44.0	
Performed crop association												
No	298	45.9	ns	102	41.8	ns	80	46.1	ns	116	55.8	*
Yes	431	40.0		158	33.2		225	57.6		48	29.4	
Performed crop rotation												
No	677	43.1	ns	245	37.3	ns	272	56.3	ns	160	46.9	ns
Yes	52	38.9		15	38.8		33	37.2		4	48.7	
Used seed treatment w/fungicides												
No	630	40.4	***	244	35.2	**	244	51.6	ns	142	46.6	ns
Yes	99	64.7		16	75.1		61	67.8		22	49.1	
Used improved seeds												
No	665	42.2	ns	234	36.9	ns	269	53.3	ns	162	46.2	ns
Yes	64	48.6		26	40.8		36	61.6		2	100.0	
Used climate information												
No	718	42.7	ns	260	37.4		294	54.1	ns	164	47.0	
Yes	11	67.1		...	...		11	67.1		...	...	
Used at least one type of improved post harvest practice/technique[4]												
No	383	39.1	*	179	36.8	ns	112	43.1	ns	92	45.9	ns
Yes	346	49.2		81	38.9		193	62.0		72	48.4	
Used local made storage												
No	546	41.4	ns	235	37.9	ns	187	49.1	ns	124	48.3	ns
Yes	183	49.7		25	29.2		118	62.7		40	43.5	
Used sealed/airtight bags												
No	545	40.7	ns	225	35.8	ns	178	52.1	ns	142	46.8	ns
Yes	184	52.8		35	48.1		127	58.7		22	48.4	
Used community storage facility												
No	691	42.4	ns	249	37.0	ns	288	55.7	ns	154	45.1	*
Yes	38	49.2		11	44.0		17	40.5		10	84.1	
Used solar/fuel-powered dryers												
No	715	42.8	ns	255	37.3	ns	298	54.5	ns	162	46.8	ns
Yes	14	43.7		5	38.1		7	51.7		2	68.5	
Used seed/grain treatment pest control tech.												
No	720	43.1	ns	254	38.1	ns	302	53.8	ns	164	47.0	
Yes	9	21.6		6	0.0		3	100.0		...	...	
Used agrochemical grain treatment												
No	713	42.5	ns	257	37.1	ns	294	53.6	ns	162	47.5	ns

	Combined RFSA Areas			Girma			Hamzari			Wadata		
	No. of Children	%	Sig.a	No. of Children	%	Sig.a	No. of Children	%	Sig.a	No. of Children	%	Sig.a
Yes	16	55.2		3	51.3		11	68.8		2	0.0	
Used triple bags												
No	679	42.5	ns	255	36.9	ns	269	53.9	ns	155	49.3	ns
Yes	50	47.4		5	52.0		36	58.0		9	19.4	
Used other post harvest practices												
No	687	42.1	ns	233	36.4	ns	297	53.6	*	157	46.5	ns
Yes	42	53.0		27	48.3		8	79.1		7	61.7	
Used at least one improved livestock mgmt. practice [5]												
No	451	40.1	ns	155	32.7	ns	178	56.5	ns	118	42.5	ns
Yes	278	46.7		105	43.0		127	51.4		46	58.7	
Household exposure to COVID-19 impacts												
Livelihoods/income impacted by COVID-19												
No	131	30.5	***	52	28.1	ns	36	31.7	*	43	36.1	ns
Yes	598	46.1		208	39.9		269	58.7		121	50.7	
Food security impacted by COVID-19												
No	98	30.4	*	44	27.0	ns	13	44.4	ns	41	34.3	ns
Yes	631	45.2		216	39.5		292	55.0		123	51.2	
Household resilience capacities												
Participation in group-based savings, microfinance or lending programs												
No	675	42.9	ns	226	37.2	ns	288	53.6	ns	161	46.8	ns
Yes	54	42.0		34	38.3		17	71.0		3	55.0	
Participation in group-based saving programs												
No	682	42.1	ns	229	36.2	ns	292	52.9	*	161	46.8	ns
Yes	47	49.7		31	44.9		13	100.0		3	55.0	
Participation in group-based credit programs												
No	708	43.3	ns	249	37.9	ns	296	54.8	ns	163	46.6	ns
Yes	21	33.0		11	29.8		9	37.1		1	100.0	
Participation in social assistance activities												
Participation in BHA RFSAs												
No	358	41.5	ns	146	34.4	ns	136	56.1	ns	76	52.9	ns
Yes	371	44.4		114	41.7		169	53.0		88	41.2	
Receipt of food rations (any donor/program)												
No	549	40.8	ns	224	34.3	*	225	55.1	ns	100	47.2	ns
Yes	180	49.6		36	50.4		80	51.9		64	46.6	
Participation in nutrition trainings/meetings (any donor/program)												
No	539	43.9	ns	177	39.7	ns	245	53.4	ns	117	45.0	ns
Yes	190	39.9		83	32.0		60	58.3		47	53.1	
Participation in agriculture-related trainings/meetings (any donor/program)												
No	504	44.5	ns	169	38.3	ns	227	55.1	ns	108	49.6	ns
Yes	225	39.7		91	35.9		78	52.7		56	42.0	
Food rations by RFSA participation status												
Did not receive any food rations	549	40.8	ns	224	34.3	ns	225	55.1	ns	100	47.2	ns
Received food rations - direct RFSA participant[6]	132	50.8		16	59.9		61	52.9		55	42.7	
Received food rations - indirect RFSA participant[7]	48	47.9		20	44.5		19	49.9		9	70.0	
Nutrition trainings/meetings by RFSA participation status												
Did not participate in any nutrition trainings/meetings	539	43.9	ns	177	39.7	ns	245	53.4	ns	117	45.0	ns
Participated in nutrition trainings/meetings - direct RFSA participant[6]	152	40.2		57	32.0		53	59.6		42	48.9	
Participated in nutrition trainings/meetings -indirect RFSA participant[7]	38	39.0		26	32.0		7	53.7		5	86.0	
Agriculture trainings/meetings by RFSA participation status												
Did not participate in any ag trainings/meetings	504	44.5	ns	169	38.3	ns	227	55.1	ns	108	49.6	ns
Participated in agri. trainings and meetings - direct RFSA participant[6]	173	42.7		60	41.0		66	53.0		47	38.6	
Participated in agri. trainings/meetings -indirect RFSA participant[7]	52	32.6		31	26.4		12	51.6		9	57.8	

	Combined RFSA Areas			Girma			Hamzari			Wadata		
	No. of Children	%	Sig.a	No. of Children	%	Sig.a	No. of Children	%	Sig.a	No. of Children	%	Sig.a

Notes

A child 6-23 months is considered to consume a minimum dietary diversity if s/he consumed at least five of the eight food groups during the previous day and night. Sample restricted to children with data available across all covariates.

Results not statistically reliable, n<30.

[1] Household agriculture status measures were calculated by aggregating the results of farmers to the household level. A household is considered to adopt a practice if at least one farmer in the household reported the practice.

[2] A household is considered to raise at least one livestock if at least one farmer reported raising any of the three livestock of interest (goats, sheep, and poultry).

[3] A household is considered to be using at least one improved crop management practices if at least one farmer reported using any of the promoted practices for any one of the three crops of interest (sorghum, millet, cowpeas and peanuts).

[4] A household is considered to be using at least one improved post-harvest practice if at least one farmer reported using any of the promoted practices for any one of the three crops of interest (sorghum, millet, cowpeas and peanuts). [5] A household is considered to be using at least one improved livestock management practices if at least one farmer reported using any of the promoted practices for any one of the three livestock of interest (goats, sheep, or poultry). [6] Includes households that reported participating in BHA RFSA activities and also reported receiving food rations.

[7] Includes households that reported participating in BHA RFSA activities and also reported participating in nutrition trainings/meetings.

Table 74: A7.12. Prevalence of diarrhea among children under five by household WASH status [Baseline Study, Niger 2020]

	Combined RFSA Areas			Girma			Hamzari			Wadata		
	No. of Children	%	Sig.a	No. of Children	%	Sig.a	No. of Children	%	Sig.a	No. of Children	%	Sig.a
Improved, not shared sanitation facility												
Household does not use a basic sanitation facility	2,832	33.1	**	998	33.9	*	1,066	24.4	ns	768	38.4	*
Household uses a basic sanitation facility	268	22.0		55	18.4		163	24.9		50	25.0	
Total	3,100	32.3		1,053	33.1		1,229	24.5		818	37.7	
Water source[1]												
Household does not use an improved water source	724	34.8	ns	181	35.2	ns	203	30.1	ns	340	35.9	ns
Household uses an improved water source	2,376	31.6		872	32.7		1,026	23.4		478	39.2	
Total	3,100	32.3		1,053	33.1		1,229	24.5		818	37.7	
Meets four of the five criteria for basic water source[2]												
Household does not meet 4 of the 5 criteria for basic water source	2,510	33.5	ns	813	35.0	ns	975	23.7	ns	722	37.6	ns
Household meets 4 of the 5 criteria for basic water source	585	27.6		240	26.2		252	26.6		93	39.9	
Total	3,084	32.3		1,053	33.1		1,222	24.5		809	37.7	
Water treatment[3]												
Household does not treat water prior to drinking	2,514	32.2	ns	845	32.7	ns	990	25.4	ns	679	37.5	ns

	Combined RFSA Areas			Girma			Hamzari			Wadata		
	No. of Children	%	Sig.a	No. of Children	%	Sig.a	No. of Children	%	Sig.a	No. of Children	%	Sig.a
Household treats water prior to drinking	586	32.5		208	34.3		239	21.3		139	38.9	
All children under five	3,100	32.3		1,053	33.1		1,229	24.5		818	37.7	
Handwashing station with water and soap or another cleansingagent												
Household does not have a handwashing station with water and soap or another cleansing agent	1,411	34.7	ns	838	34.0	ns	91	15.8	ns	482	39.2	ns
Household has a handwashing station with water and soap or another cleansing agent	270	31.5		101	30.2		64	26.2		105	35.5	
Total	1,681	34.2		939	33.6		155	19.7		587	38.5	
Knowledge of 3 of the 6 critical moments for handwashing[4]												
Household does not know 3 of the 6 critical moments for handwashing	2,516	32.9	ns	904	33.7	ns	900	25.7	ns	712	36.9	ns
Household knows 3 of the 6 critical moments for handwashing	584	29.7		149	30.7		329	21.6		106	42.9	
Total	3,100	32.3		1,053	33.1		1,229	24.5		818	37.7	

NOTES:

[a] Significance tests were performed to determine whether an association exists between the outcome indicator (diarrhea) and the disaggregate variable (WASH). Associations found to be statistically significant are indicated by level: * p<0.05, ** p<0.01, *** p<0.001; ns=not significant.

[1] Does not include other criteria for basic water source - namely, water source is on the premises or obtainable in 30 minutes or less roundtrip; water source was not unavailable for a day or longer in the past two weeks; and water source produces at least 20 liters per day per person.

[2] Refers to households that meet the following criteria: uses an improved water source; water source is on the premises or obtainable in 30 minutes or less roundtrip; water source was not unavailable for a day or longer in thepast two weeks; and water source produces at least 20 liters per day per person.

[3] Households were not asked to report method of treating water prior to drinking therefore this estimate does not distinguish between correct and incorrect water treatment practices.

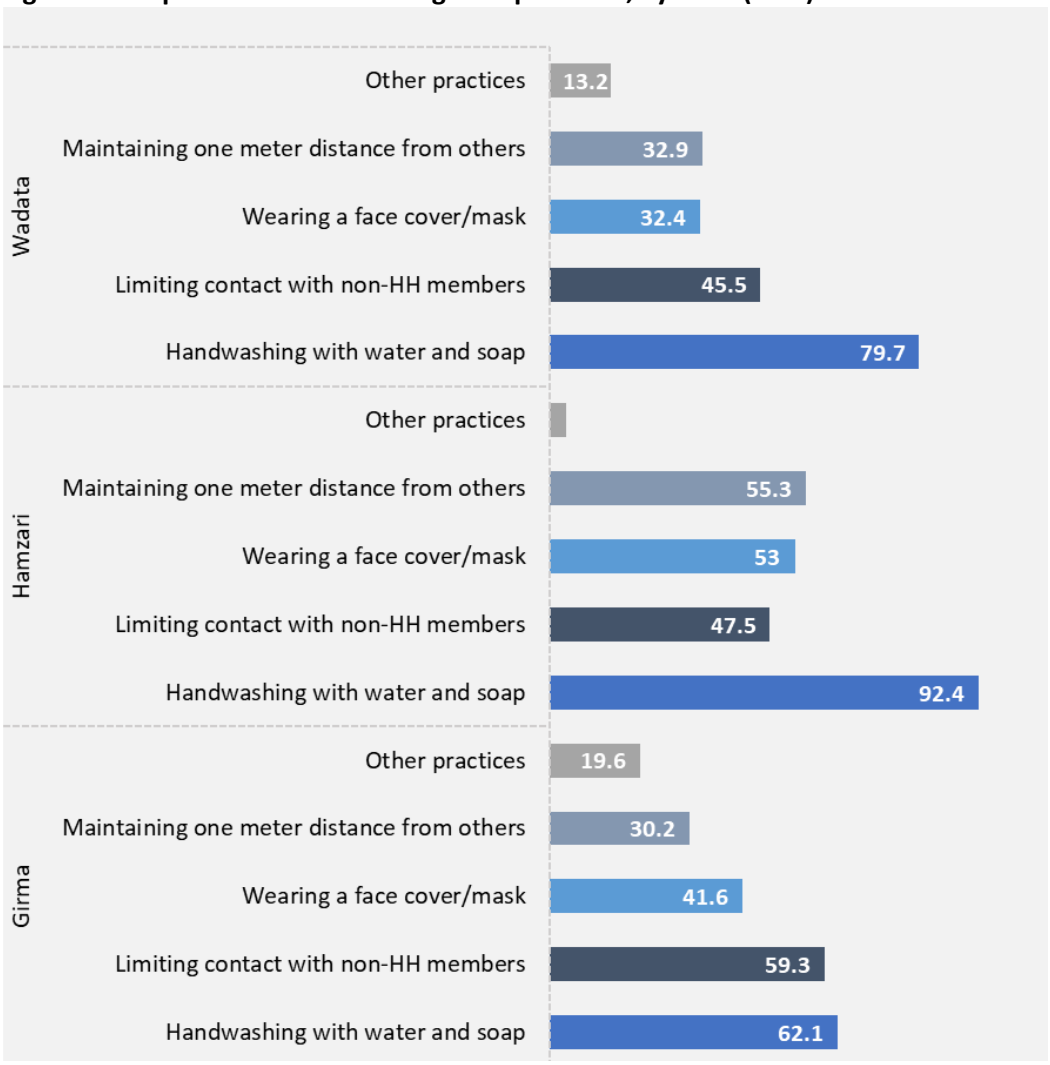
[4] Critical moments for handwashing include (1) before eating; (2) before breastfeeding or feeding the child; (3) before cooking or preparing food; (4) after using the toilet/latrine; (5) after cleaning or changing the diaper of a child who defecated; and (6) after cleaning the toilet or pot.

ANNEX 8: COVID-19 KNOWLEDGE, PRACTICES, IMPACTS, AND COPING STRATEGIES

Knowledge of COVID-19 and adoption of mitigation practices

Awareness of the COVID-19 pandemic is widespread across the RFSA areas (Girma, 98.6%; Hamzari, 99.3%; Wadata, 97.6%). Female-adult-only households in Girma ($p < 0.05$) and Wadata ($p < 0.001$) are less likely to be aware of the virus compared to other household types (see Annex 6, Table A6.17). Most households in the RFSA areas take measures to mitigate the spread of COVID-19. Figure 1 illustrates the extent of adoption of COVID-19 mitigation protocols by RFSA.

Figure 1: Adoption of COVID-19 mitigation protocols, by RFSA (A8.1)



Washing hands with water and soap was the most cited COVID-19 mitigation practice (Girma, 62.1%; Hamzari, 92.4%; 79.7%). However, the percentages of households with a handwashing station with water and soap/ash, based on enumerator observation, are considerably lower (Girma, 8.9%; Hamzari, 40.6%; Wadata; 18.2%; see Section 3.5.3). These findings suggest the possibility of respondents reporting based

on what they think enumerators hope to hear or consider acceptable rather than the actual behavior of their household members. Household participation in WASH-related meetings/trainings was moderately widespread (Girma, 69%; Hamzari, 58.9%; Wadata, 44.7%); these meetings could be one forum in which households were sensitized on the importance of handwashing to mitigate the spread of COVID-19.

Impact of COVID-19 on livelihoods and food security

Most households' livelihoods were impacted by the COVID-19 pandemic (Girma, 76.8%; Hamzari, 84.9%; Wadata, 68.4%).8 Similarly, the majority of households experienced impacts to their food security due to COVID-19 (Girma, 80.5%; Hamzari, 91.8%; Wadata, 73%). 9 The impacts are due to restrictions to curb the spread of the virus.

Livelihoods

Figure A8.2 illustrates the five most common COVID-19 impacts on livelihoods by RFSA.[10] About one-quarter of households (Girma, 29.2%; Hamzari, 21.3%; Wadata, 24.9%) experienced a reduction in income. Some livelihood effects were experienced more directly due to a loss of employment (Girma, 17.6%; Hamzari, 16.5%; Wadata 12.2%). Other livelihood impacts resulted indirectly from a constellation of factors such as the inability to access markets to buy inputs because of restrictions or market closures (Girma, 19.0%; Hamzari, 22.6%; Wadata, 12.7%). High transportation costs, which make it difficult to reach markets, were experienced by close to one-quarter of households in Girma (27.6%) and Wadata (22.2%) and more than one-third in Hamzari (40.5%). About 20% of households in Hamzari were unable to get to markets to sell livestock and livestock products because of closures and restrictions, and a similar percentage experienced increases in crop input prices.[11]

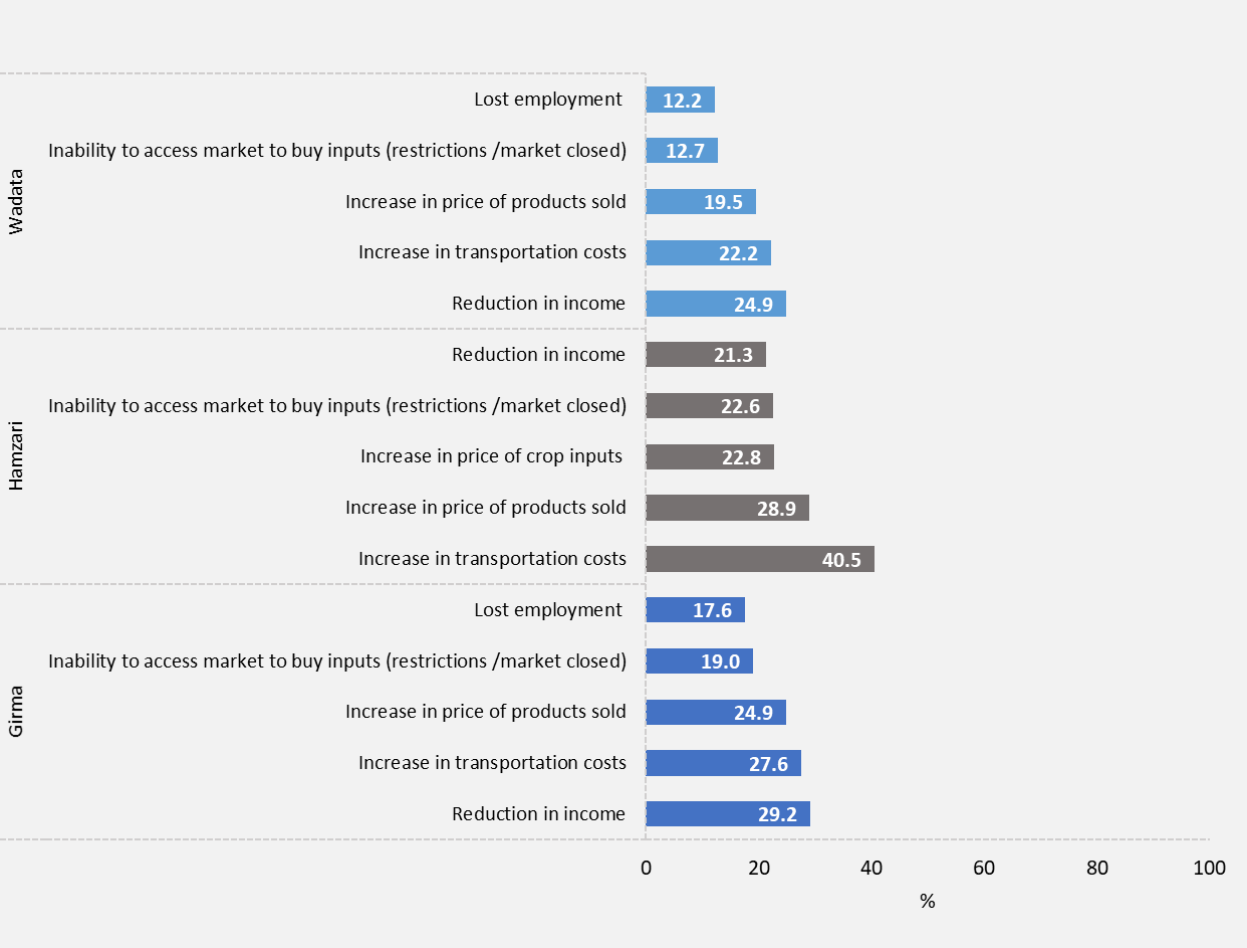
[8] See Annex 6, Table A6.18. Includes households that reported at least one impact to their livelihood due to COVID-19. Calculated by subtracting the percentages of households who reported their livelihood was not impacted and those who responded "don't know" from 100.

[9] See Annex 6, Table A6.19. Includes households that reported at least one impact to their food security due to COVID-19. Calculated by subtracting the percentages of households who reported their food security was not impacted and those who responded "don't know" from 100.

[10] Household respondents who reported being aware of the COVID-19 pandemic were asked "How has COVID-19 affected your household's livelihoods?" Multiple responses were allowed. Enumerators were trained to probe for the various ways in which COVID-19 may impact households' livelihoods, for example by influencing market access (due to movement restrictions or market closures), price of inputs or products sold, demand for products, and ability to hire labor. It can also constrain access to productive resources (e.g., land and water) and services (e.g., extension services, financial services, storage, et). Refer to Annex 6, Table A6.18 for additional information.

[11] See Annex 6, Table A6.18 for additional details.

Figure 2: Top five COVID-19 related impacts on households' livelihoods, by RFSA area (A8.2)

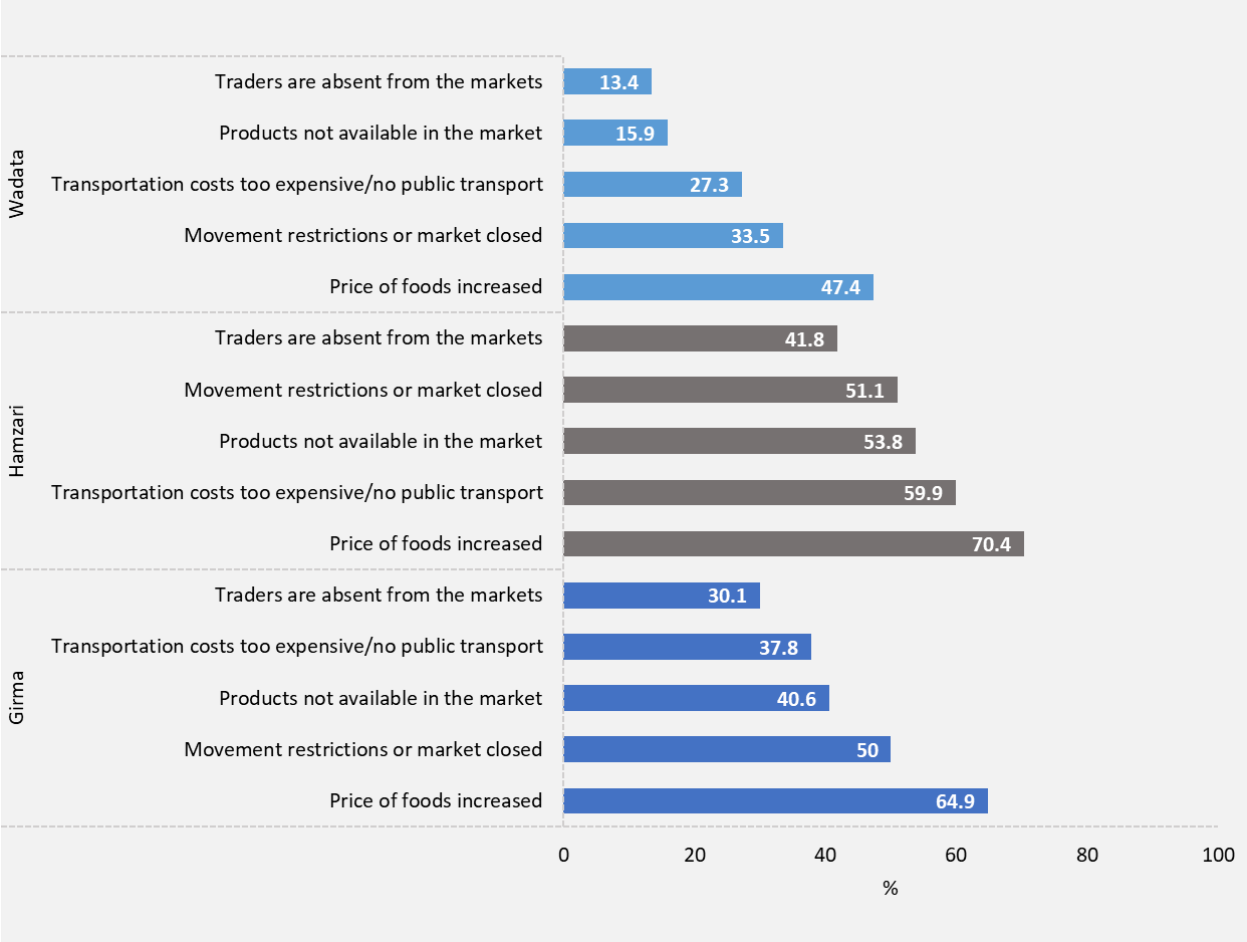


Food security

The five most common food security impacts of COVID-19 are illustrated in Figure A8.3.[12] Many households experienced increases in food prices ranging from 47.4% in Wadata to 64.9% in Girma and 70.4% in Hamzari. Inability to acquire food items due to movement restrictions and market closures were experienced by one-third of households in Wadata (33.5%) and one-half in Girma (50%) and Hamzari (51.1%). Increase in transportation costs, absence of traders from markets, and lack of product availability in markets were among the main factors that impacted household food security.

[12] Household respondents who reported being aware of the COVID-19 pandemic were asked "How has COVID-19 affected your household's food security?" Multiple responses were allowed. Enumerators were trained to probe for the various direct and indirect ways in which COVID-19 may impact households' food security. For example, household food security can be affected if households are unable to access markets due to market closures or movement restrictions. It can also result from traders being absent from the market, and changes in the availability of food and/or essential items, changes in food prices, increase in the cost of transportation to travel to markets, or delays in receiving cash or food assistance. See Annex 6, Table A6.19 for additional information.

Figure 3: Top five COVID-19 related impacts on households' food security, by RFSA area (A8.3)



Coping strategies adopted by households to address COVID-19 impacts

Almost all households borrowed (interest-free) from friends or family living in their community to cope with the adverse impacts of COVID-19 on their livelihoods (see Figure 33) This is consistent with the findings related to household social capital, which underscored the strength of obligation and support networks during times of distress. At least 40% of households (except for Wadata) coped with the impacts of the COVID-19 pandemic by reducing the size and frequency of meals. About 20% or more of households cut down on non-essential household expenses (see Figure 33 and Figure 34). Other coping strategies included selling livestock or selling livestock at lower prices, consuming saved seeds, taking children out of school, and engaging in spiritual efforts (see Figure 33 and Figure 34). Annex 6, Table A6.20 and Table A6.21 provide additional details on COVID-19 related coping strategies.

Figure 4: Coping strategies for addressing livelihood impacts of COVID-19, by RFSA (A8.4)

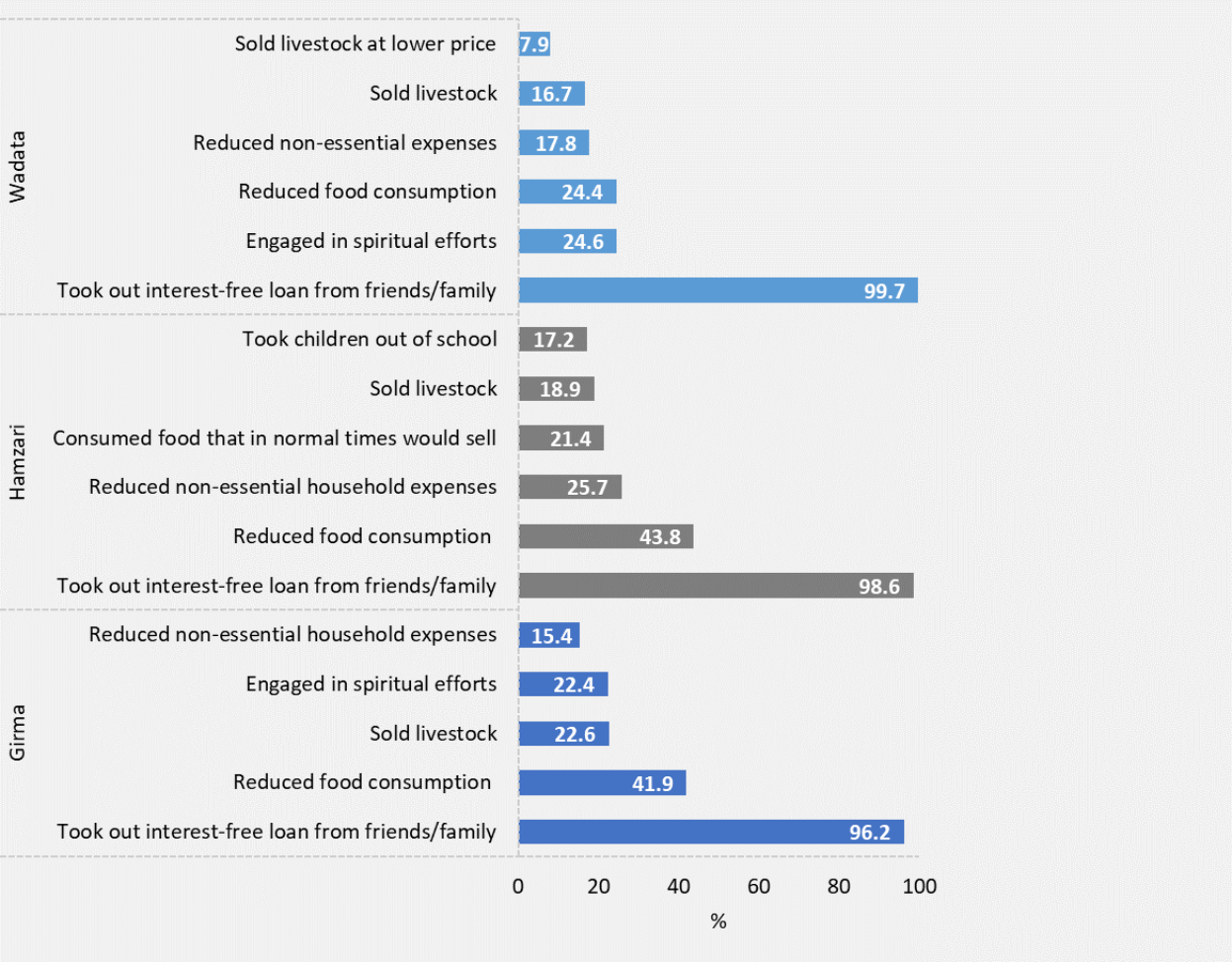


Figure 5: Coping Strategies for addressing food security impacts of COVID-19, by RFSA (A8.5)