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*Un Peuple - Un But - Une Foi*

**MINISTÈRE DE L'ÉCONOMIE  
DU PLAN ET DE LA COOPÉRATION**



PROGRAM FOR HARMONIZATION AND MODERNIZATION OF SURVEYS ON HOUSEHOLD  
LIVING CONDITIONS IN THE MEMBER STATES OF UEMOA (PHMECV)

HARMONIZED SURVEY ON HOUSEHOLD LIVING CONDITIONS (EHCVM)

DOCUMENT OF BASIC INFORMATION OF THE SECOND EDITION

September 2023



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# **1. Introduction**

## **Context**

The Harmonized Survey on Household Living Conditions (EHCVM) is a joint initiative of the WAEMU Commission and the World Bank. It is conducted under the Program for the Harmonization and Modernization of Household Living Conditions Surveys within the WAEMU member states (PHMECV).

The program aims to support the WAEMU Commission in strengthening the capacities of its member states to conduct household living conditions surveys that meet harmonized regional standards and to make the collected microdata accessible to the public. Specific objectives include producing indicators on poverty and living conditions and creating harmonized databases for analyses to inform public policies.

The beneficiaries are the eight WAEMU member countries: Benin, Burkina Faso, Côte d'Ivoire, Guinea-Bissau, Mali, Niger, Senegal, and Togo. Besides the PHMECV beneficiary countries, Cameroon, Chad, Guinea, and Congo have also conducted similar surveys using the same methodologies and participated in various technical activities. The first edition of the survey took place in 2018/2019, and the second, covered in this document, in 2021/2022.

The survey has four components: a household component, a community component, a price component, and a component on non-standard units (NSU) of measurement.

## **Partners**

The survey was designed and conducted through collaboration between the National Institutes of Statistics (INS), the WAEMU Commission, and the World Bank. BCEAO, BOAD, and AFRISTAT also supported the process.

The INS were central to the process in all phases (design, preparation, data collection, data processing, and analysis).

## **Funding**

The program is funded by the World Bank through a \$40.5 million grant to the WAEMU Commission. For Senegal, the allocated funding is \$4.5 million.

## **Technical Assistance**

The WAEMU Commission and the World Bank provided technical assistance to the INS throughout the project implementation. This assistance came in the form of missions and regional workshops.

They provided the necessary expertise in coordination to support the harmonization process to ensure that the produced indicators are comparable. They also supported the modernization process in the collection (CAPI) and methodological phases (e.g., introducing the panel dimension during the second edition).

## **Organization of the Document**

This document is designed to provide the necessary information for understanding the data from the second edition of the Harmonized Survey on Household Living Conditions (EHCVM 2). It is composed of seven parts. Following the introduction, the next section presents the survey characteristics. The survey instruments are discussed in part 3, and sampling issues are addressed in part 4. The document describes the organization of fieldwork in part 5, presents the main results of the data collection in part 6, and describes the databases in part 7.

## **2. Survey Characteristics**

### **2.1 Household and Community Components**

The "household" and "community" components of the survey are organized in two waves. Each wave covered half of the sample clusters and half of the household sample. Organizing the work in two waves allows for accounting for seasonal variations in consumption throughout the year. Each wave of the survey was preceded by a listing phase that identified the households from the first edition. The data collection for the first wave took place from November 6, 2021, to January 5, 2022. For the second wave, the data collection phase was conducted from April 22 to July 22, 2022.

### **2.2 Price Component**

The price component is organized differently, with data collected monthly throughout the entire data collection period, including the pause between the two waves. The price data were collected from December 13, 2021, to August 31, 2022.

### **2.3 Non-Standard Units (NSU) Component**

The component on non-standard units (NSU) allows for converting the non-standard consumption units typically used in households (heap, bowl, cob) into standard units (kilogram, liter).

Two categories of NSU were completed during the second edition of the EHCVM, over the period 2021/2023. These NSUs are:

- **NSU Consumption:** Most of the information on this NSU was collected during the 2018/2019 episode, and the established conversion factors remained valid for most units. However, there was a need for additional data collection to complete some missing units. This collection took place from August 12 to 23, 2021.
- **NSU Production:** Information on NSU production was collected over two periods: an initial collection from September 6 to October 22, 2022, followed by a supplementary collection from March 15 to April 14, 2023, considering the availability of productions for different crops.

### 3. Data Collection Instruments

The survey consists of four questionnaires: a household questionnaire, a community questionnaire, a price questionnaire, and a questionnaire on non-standard units (NSU).

#### 3.1 Household Questionnaire

The household questionnaire collected information at both the household and individual levels. The sections at the household level include: control section, food consumption, food security, non-food expenditures, existence of agricultural enterprises, housing, household assets, monetary transfers, shocks, safety nets, agriculture, livestock, fishing, agricultural equipment, subjective poverty, governance, peace, and security. The sections for collecting information at the individual level are: sociodemographic characteristics of household members, education, health, employment, non-employment income, savings, and characteristics of non-agricultural enterprises. The content of the household questionnaire is detailed below:

- **Cover:** Contains information related to the identification and geospatial location of the household. This section also records basic information about the head of the surveyed household.
- **Section 0: Household Identification and Control Information:** This section provides detailed geographical location information of the household, including the GPS coordinates of the household. It also records data on the conduct of the interview, visit dates and the language of the interview.
- **Section 1: Sociodemographic Characteristics of Household Members:** Concerns all household members. It includes the list of household individuals and provides sociodemographic characteristics such as relationship to the head of household, age, marital status, religion, residency status, nationality, ethnicity, parents' survival status, education level, and the father's and mother's occupation.
- **Section 2: Education (individuals aged 3 years and above):** Pertains to individuals aged three years and older. It includes variables for literacy, schooling, and the individual's education level. It also provides information on the individual's educational trajectory, including difficulties encountered and expenses incurred.
- **Section 3: General Health:** Filled out for all household members. It provides information on major health issues and consultations the household members had in the 30 days preceding the interview. The section addresses the main constraints and difficulties regarding the quality and access to health services. It also covers health consultations and expenses in the last three months, hospitalizations, and expenses in the 12 months preceding the survey. This section also addresses disabilities in individuals aged five years and older.
- **Section 4: Employment:** Dedicated to household members aged five years and older. It contains three sub-sections: labor market participation, main employment, and secondary employment.
  - **Part A: Activity Status (individuals aged 5 years and older):** Collects information on labor market participation for all individuals aged five years and older. It includes the individual's time use and variables to capture their labor market participation in the

seven days preceding the interview. It also covers job search processes implemented in the 30 days before the interview.

- **Part B: Main Employment in the Last 12 Months (individuals aged 5 years and older):** For individuals who worked in the last 12 months, it gathers information on the main job's characteristics. The data collected includes occupation, industry, socio-professional category, institutional sector, and for employees, salary and other benefits.
  - **Part C: Secondary Employment in the Last 12 Months (individuals aged 5 years and older):** Focuses on secondary employment information for individuals identified as having secondary jobs in the 12 months preceding the interview. The information collected is similar to the previous section.
- **Section 5: Non-employment Income in the Last 12 Months (individuals aged 15 years and older):** Collects information on non-employment income for individuals aged 15 years and older, including pensions and other public transfers, rents, and other financial and patrimonial incomes. Private monetary transfers are covered in Section 13.
  - **Section 6: Savings and Credit (individuals aged 15 years and older):** Collects data on access to financial institutions and prepaid services, savings, loans or credits taken, repayments made, and upcoming payment deadlines for household members aged 15 years and older.
  - **Section 7: Food Consumption:** Collects data on household food consumption, which includes two parts: meals eaten outside the home by consumption category (breakfast, lunch, dinner, snack) and household consumption by item.
    - **Part A: Meals Eaten Outside the Household in the Last 7 Days:** Collects information on meals consumed by one or more household members in the seven days preceding the interview.
    - **Part B: Food Consumption in the Last 7 Days and Purchases in the Last 30 Days:** Collects information on items consumed in the household in the seven days preceding the interview. For each item, it records quantities consumed, acquisition mode (purchase, self-consumption, gift received). If the consumed product was purchased in the 30 days preceding the interview, it also records the last quantity purchased and the value of the purchase.
  - **Section 8: Food Security:** Contains information on the household's resource capacity to ensure food security for its members, according to the FAO's FIES approach. Basic food security questions are asked for the 12 months preceding the interview.
  - **Section 9: Households Retrospective Food and Non-food Experience:** This section comprises six sub-sections covering most non-food expenditures, excluding expenditures on phone credit recharge (Section 1), education (Section 2), health (Section 3), and housing (Section 11).
    - **Part A: Expenditures on Festivals and Ceremonies in the Last 12 Months:** Provides information on expenditures for festivals and celebrations such as religious holidays, weddings, funerals, baptisms, etc., organized by the household. Variables include expenses for food, drink, clothing and footwear, hall rentals, etc.
    - **Part B: Non-food Expenditures in the Last 7 Days:** Provides information on non-food expenditures that are as frequent as food expenses, such as cigarettes, kerosene,

firewood, fuel, urban transport, newspapers, etc. The main variable recorded is the amount spent.

- **Part C: Non-food Expenditures in the Last 30 Days:** Provides information on expenditures for items like wine and spirits, domestic gas, domestic staff wages, and other relatively frequent household operating expenses. The main variable recorded is the amount spent.
  - **Part D: Non-food Expenditures in the Last 3 Months:** Provides information on expenditures for items such as intercity transport, entertainment fees, postal services, gardening, pet care, etc. The main variable recorded is the amount spent.
  - **Part E: Non-food Expenditures in the Last 6 Months:** Provides information on expenditures for clothing and footwear purchased other than for festivals and celebrations. The main variable recorded is the amount spent.
  - **Part F: Non-food Expenditures in the Last 12 Months:** Relates to annual or less frequent expenditures, such as housing investments, housing repairs, international travel, acquisition of durable goods, etc. The main variable recorded is the amount spent.
- **Section 10: Non-agricultural Enterprises :** This section concerns non-agricultural enterprises owned by the household.
    - **Part A: Existence of Non-agricultural Enterprises:** Indicates whether the household owns at least one non-agricultural enterprise.
    - **Part B: Characteristics of Non-agricultural Enterprises:** Collects detailed information on the non-agricultural enterprises owned by the household, including the owner of the enterprise, the industry, the age of the enterprise, the degree of formalization, variables for calculating accounting aggregates, family labor, and paid labor.
  - **Section 11: Housing Characteristics :** This section concerns the characteristics of the household's housing, including the type of material used for the roof, floor, and walls, as well as amenities (electricity, water and sanitation, toilets, etc.). It also details housing expenses (rent, water bills, electricity bills, fixed phone bills, etc.).
  - **Section 12: Household Assets :** This section provides data on the household's durable goods, including household appliances, furniture, means of transportation, etc. The goods considered must be in good working condition. For each item, the number owned by the household is recorded. For the last acquired item, its age, acquisition value, and replacement cost value are also recorded.
  - **Section 13: Transfers Received by the Household :** This section contains data on transfers received by the household from other households. It provides detailed information on the sender's characteristics, the reason for the transfer, the transaction channel used, and the amount received.

**Note:** Unlike the first edition, the sub-section on transfers sent (13B) was not included.

- **Section 14: Shocks and Coping Strategies :** This section provides information on shocks experienced by the household. It contains two parts:



- **Part A: Covid-19 and its Impact on Households:** Relates to shocks directly linked to the Covid-19 pandemic that emerged in 2020. It covers potential shocks (illness, reduced work hours, decreased transfers, etc.) experienced by the household and assesses the household's resilience to these shocks.
  - **Part B: Other Shocks and Coping Strategies:** These shocks relate to employment, income, health, natural disasters, etc. The section provides detailed information on the consequences of these shocks and any strategies used to mitigate their effects.
- **Section 15: Safety Nets :** This section provides information on access to social security programs such as food distribution and free health care for children and pregnant women. Variables collected include the nature and frequency of the aid received, the identity of the beneficiaries within the household, and any difficulties encountered in receiving the various forms of aid.
  - **Section 16: Agriculture :** This section relates to agricultural activities carried out by the household. It includes four sub-sections:
    - **Part A: Fields and Plots:** Provides information on the characteristics of plots cultivated by the household, including the identity of the operator, the area of each plot, crops grown, land tenure, labor, and use of inputs.
    - **Part B: Cost of Inputs:** Provides information on the cost of inputs used by the household, the quantity used, and the source of supply.
    - **Part C: Crops:** Lists the crops grown on the plots cultivated by the household. For each crop, information on the harvests is collected.
    - **Part D: Use of Production:** For each crop, this sub-section covers the use of the production (consumption, sale, stock).
  - **Section 17: Livestock :** This section is dedicated to livestock activities carried out by the household. The household may own these animals or raise them for others. For each type of animal, the section collects information on the number of animals owned, operating costs incurred, and the amount of sales of livestock products (animals, meat, milk, eggs, and other by-products).
  - **Section 18: Fishing :** This section identifies households engaged in fishing. It provides information on the quantities and types of fish caught, operating costs, and income generated, among other things.
  - **Section 19: Agricultural Equipment :** This section identifies equipment owned by the household for agricultural, livestock, and fishing activities. For each piece of equipment, it captures information on age, acquisition value, and current estimated value.
  - **Section 20: Subjective Poverty, Governance, Peace, and Security :** This section provides information on topics related to monetary poverty and living conditions.
    - **Part A: Subjective Poverty:** Captures the household's perception of their living standards.
    - **Part B: Governance:** Relates to governance issues, including individual freedoms, participation in major decisions, corruption, etc.
    - **Part C: Peace and Security:** Addresses security issues, evaluating whether individuals feel safe and whether they have been victims of aggression.

**Note:** Parts B and C of Section 20 were not included in the first edition of the questionnaire.

### 3.2. Community Questionnaire

This instrument was used to gather essential information about local communities. It was administered in the form of focus groups within the village/neighborhood where the cluster is located. It consists of four main sections that collect general data about the community, basic social infrastructure, agricultural activities, and community participation.

- **Coverage:** This section includes geospatial location information of the cluster. It also contains basic information about the chief of the surveyed village/neighborhood.
- **Section 0: List of Respondents:** This section lists the individuals who provided the information collected about the community. It also collects the following socio-demographic characteristics for these respondents: gender, age, role in the community, number of years living in the community, and level of education.
- **Section 1: General Characteristics of the Village/Neighborhood:** This section gathers socio-demographic, economic, geographic, and living condition information at the community level. Information includes population size, languages spoken, topography, distance to the nearest town, accessibility, community organization, access to electricity, drinking water, and mobile phone networks.
- **Section 2: Existence and Accessibility to Social Services:** This section pertains to existing social infrastructures in the village/neighborhood. For each infrastructure, the questionnaire captures information on accessibility in terms of transportation means to reach the infrastructure, time required from the village/neighborhood to the infrastructure, and challenges encountered in using the service.
- **Section 3: Agriculture:** This section provides information on the agricultural activities of the village/neighborhood. It collects data on crops cultivated, existence of agricultural cooperatives, access to agricultural equipment, potential use of improved agricultural techniques, etc.
- **Section 4: Community Participation:** This sub-section gathers data on citizen participation in community life and their sense of ownership regarding the construction and maintenance of infrastructures such as roads, bridges, schools, health centers, wells, and markets.

### 3.3. Price Questionnaire

The price component is designed to collect price data from a sample of markets. Surveys are conducted monthly in selected locations. In each region, there are at least two selected locations (one urban and one rural). Sale points include markets, stores, supermarkets, etc. The price questionnaire gathers prices for both food and non-food consumer goods, using the consumption modules classification from the household questionnaire.

Products are subdivided into two categories, each with its specific questionnaire:

- Homogeneous products sold in markets:
  - **Section 0:** Information about the visited market.

- **Section 1:** Information about weights and prices of products.
- Products sold outside traditional markets:
  - **Section 0:** Information about the visited point of sale.
  - **Section 1:** Information about product prices.

### 3.4. Non-standard Units (UNS) Questionnaire

Both components (consumption and production) on non-standard units of measurement share a common structure and have a high degree of similarity in their questionnaires. They differ primarily in their target collection points: from merchants (markets for consumption) for one and from producers (localities for production) for the other.

#### Description of the Consumption Component:

- **Section 0:** Market Identification. Provides geographical location information and market operation days.
- **Section 1:** Recording weights and prices of non-standard units and consumption. For each product-unit-size combination of the non-standard unit, the consumption product is weighed and the corresponding weight is recorded in kilograms.

#### Description of the Production Component:

- **Section 0:** Locality Identification. Provides geographical location information where the surveys were conducted.
- **Section 2:** Recording weights and prices of non-standard production units. For each product-state-unit combination, the agricultural product is weighed and the corresponding weight is recorded in kilograms.

## 4. Sampling

### 4.1. Household and Community Component

**Sampling Base** The sampling base for the 2018/2019 survey was the General Census of Population and Housing, Agriculture, and Livestock (RGPHAE) of 2013. In 2021/2022, a enumeration was conducted in the same clusters.

**Sampling Plan** The second edition is a cluster panel survey, and the sampling plan builds upon that of the 2018/2019 survey.

The sample for the 2018/2019 survey was drawn using a two-stage stratified sampling plan. The stratum is the combination of region/residential area. At the first stage, clusters or census districts (primary sampling units) were selected with probability proportional to their size in terms of number of households within each stratum. At the second stage, twelve (12) households were selected with equal probability within each cluster. The distribution of clusters drawn per region is provided in Table 1a.

**Table 1a.** Distribution of clusters in the initial sampe

Region	Wave 1			Wave 2			Total
	Urban	Rural	Total	Urban	Rural	Total	
Dakar	38	5	43	38	5	43	86
Ziguinchor	11	9	20	11	9	20	40
Diourbel	11	12	23	11	12	23	46
Saint-Louis	11	10	21	11	10	21	42
Tambacounda	8	10	18	8	10	18	36
Kaolack	12	10	22	12	10	22	44
Thiès	13	11	24	13	11	24	48
Louga	10	10	20	10	10	20	40
Fatick	9	10	19	9	10	19	38
Kolda	8	10	18	8	10	18	36
Matam	8	9	17	8	9	17	34
Kaffrine	8	10	18	8	10	18	36
Kédougou	10	9	19	10	9	19	38
Sédhiou	8	9	17	8	9	17	34
Total	165	134	299	165	134	299	598

The sample from 2018/2019 was designed to achieve a certain precision regarding annual consumption per person. With a sample size of 7,176 households, the relative error was approximately 1.16% at the national level.

In 2021/2022, the strategy involved revisiting the same clusters. The priority was to first survey the 12 households from 2018/2019 in each cluster if they were found again (after the enumeration phase). Subsequently, the aim was to complete the sample to 12 households in clusters where fewer than 12 households were found during the enumeration phase (either because there were fewer than 12 households in the final 2018/2019 database or because some households were generally not found due to relocation).

Two administrative regions (DRs) were not covered in this second edition: one was excluded due to security reasons, and the other due to refusal from the population. For this latter DR, only three out of the twelve targeted households were surveyed in 2018/2019.

**Table 1b.** Distribution of the initial household sample

Region	Wave 1			Wave 2			Total
	Urban	Rural	Total	Urban	Rural	Total	
Dakar	456	60	516	456	60	516	1032
Ziguinchor	132	108	240	132	108	240	480
Diourbel	132	144	276	132	144	276	552
Saint-Louis	132	120	252	132	120	252	504
Tambacounda	96	120	216	96	120	216	432
Kaolack	144	120	264	144	120	264	528
Thiès	156	132	288	156	132	288	576
Louga	120	120	240	120	120	240	480
Fatick	108	120	228	108	120	228	456
Kolda	96	120	216	96	120	216	432
Matam	96	108	204	96	108	204	408
Kaffrine	96	120	216	96	120	216	432
Kédougou	120	108	228	120	108	228	456
Sédhiou	96	108	204	96	108	204	408
Total	1 980	1 608	3 588	1 980	1 608	3 588	7 176

## 4.2. Price Component

The selection of markets was done through reasoned choice. In each region, except Dakar, one market in an urban area and another in a rural area were selected as observation points for prices of homogeneous products. For the Dakar region, four observation points were chosen. Additionally, observation points were identified in peri-urban areas as part of rural zones to mitigate coverage deficits of products in rural areas. In total, thirty-eight markets (38) were selected nationwide. Table 2 outlines the distribution of markets for each region.

**Table 2.** Distribution of the sample of markets for the Price component

Region	Area of residence		Total
	Urban	Rural	
Dakar	4	1	5
Thiès	1	2	3
Diourbel	1	2	3
Kaolack	1	1	2
Fatick	1	1	2
Louga	1	1	2
Kaffrine	1	2	3
Saint-louis	1	1	2
Matam	1	2	3
Tamba	1	2	3
Kédougou	1	1	2
Kolda	1	1	2
Sédhiou	1	2	3
Ziguinchor	1	2	3
Total	17	21	38

### 4.3. NSU Component

#### Consumption component

Sampling followed the same stratification as the previous edition in terms of market type. Market selection was based on reasoned choice. Localities to be visited were identified to ensure adequate national coverage by area and region. In each region, 3 markets/sales points were defined:

- 1 urban market
- 1 rural market
- 1 weekly market

For the Dakar and Thiès regions, three additional markets were identified (two in Dakar and one in Thiès). This results in a total of 45 markets visited across the country. Table 3 provides the number of markets visited per region.

**Table 3.** Distribution of the sample of markets for the NSU component

Region	Total
Dakar	5
Thiès	4
Diourbel	3
Kaolack	3
Fatick	3
Louga	3
Kaffrine	3
Saint-louis	3
Matam	3
Tamba	3
Kédougou	3
Kolda	3
Sédhiou	3
Ziguinchor	3
Total	45

### **Production Component**

The proposed sampling is non-probabilistic. This approach involves selecting observation units (producers/agriculturists) in a reasoned manner. It is flexible and allows for maximum respondent coverage, even for rare UMLs (Unit of Measurement for Livestock).

The survey covered all 14 regions of Senegal. UMLs were identified based on the databases from EHCVM Editions I and II. For each region, nine localities were identified, three per department. It should be noted that a locality is considered a geographic area comprising several contiguous villages/communes where multiple producers are found.

The supplementary survey was conducted following a similar distribution of localities.



## **5. Data Collection**

### **5.1. Fieldwork Organization**

#### **Household and Community Component**

Data collection from households in 2021/2022 was organized into two waves, similar to 2018/2019. The first wave of data collection took place from November 6, 2021, to January 5, 2022, involving 148 field agents, including 111 enumerators, and 37 supervisors/team leaders. The second wave occurred from April 22 to July 22, mobilizing 108 field agents, including 81 enumerators, and 27 supervisors/team leaders. The fieldwork was organized to commence almost simultaneously in all strata and conclude in near synchrony.

#### **Price Component**

Price surveys were conducted from December 13, 2021, to August 31, 2022. Thirty (30) agents were mobilized throughout this period, with 2 agents per region, except for Dakar and Diourbel, where an additional agent was mobilized for each.

The collection of prices for homogeneous varieties took place in 38 markets across all strata. Prices for heterogeneous varieties were collected from outlets other than markets within the same strata.

This price survey covered a total of 360 varieties from the EHCVM2 product list.

#### **NSU Component**

Additional data collection for NSU consumption took place from August 12 to 25, 2021, involving 42 agents and 14 team leaders. The collection focused on food products listed in Section 7 of the household questionnaire.

The initial data collection for NSU production occurred from September 6 to October 22, 2022, involving 27 agents and 9 team leaders. For the supplementary collection, 42 agents and 14 team leaders participated in data collection from March 15 to April 14. The collected information pertained to agricultural products or crops listed in Section 16 (agriculture) of the household questionnaire.

### **5.2. Data Collection Method**

The Computer-Assisted Personal Interview (CAPI) technique using the "Survey Solution" (SuSo) software is employed for all data collection components.

For household, community, and NSU components, three levels of control are implemented. Initially, enumerators ensure the effectiveness of controls integrated directly into the collection application. Subsequently, team leaders review questionnaires, ensuring the same controls before validating and transmitting them to headquarters. Finally, the headquarters team executes a quality control and rejection program on a set of questionnaires adopted at the regional level. In addition to the regional

program, the headquarters has implemented another program to identify certain inconsistencies and local specifics not addressed by the regional program.

Questionnaires automatically rejected by these programs are first reviewed by headquarters to provide guidance on necessary corrections. Regular exchanges with field teams were conducted in this regard.

## 6. Collection Results

As previously indicated, data collection occurred in two waves, with each wave covering half of the sample. Table 4 provides the distribution of the final sample of households and individuals by region for each wave.

**Table 4.** Household and Individual Counts in the Final Database

Region	Wave 1			Wave 2			Total
	Urban	Rural	Total	Urban	Rural	Total	
DAKAR	431	60	491	454	60	514	1 005
	2 859	511	3 370	2 749	388	3 137	6 507
ZIGUINCHOR	132	96	228	132	108	240	468
	952	765	1 717	1 149	866	2 015	3 732
DIOURBEL	132	144	276	132	144	276	552
	1 221	1 399	2 620	1 273	1 352	2 625	5 245
SAINT-LOUIS	132	120	252	132	119	251	503
	1 188	1 103	2 291	1 298	1 058	2 356	4 647
TAMBACOUNDA	96	120	216	96	120	216	432
	900	1 563	2 463	857	1 181	2 038	4 501
KAOLACK	142	120	262	144	120	264	526
	1 102	1 327	2 429	1 398	1 320	2 718	5 147
THIES	152	127	279	156	132	288	567
	1 249	1 223	2 472	1 221	1 165	2 386	4 858
LOUGA	120	120	240	120	120	240	480
	1 085	1 165	2 250	1 103	1 255	2 358	4 608
FATICK	107	120	227	108	120	228	455
	884	1 149	2 033	897	1 126	2 023	4 056
KOLDA	96	120	216	96	120	216	432
	764	1 199	1 963	795	1 186	1 981	3 944
MATAM	96	108	204	96	108	204	408
	1 035	1 203	2 238	952	1 236	2 188	4 426
KAFFRINE	96	120	216	96	120	216	432
	790	1 188	1 978	926	1 345	2 271	4 249
KEDOUGOU	118	108	226	118	108	226	452
	984	927	1 911	809	846	1 655	3 566

SEDHIOU	96	108	204	96	108	204	408
	957	1 308	2 265	758	1 021	1 779	4 044
Total	1 946	1 591	3 537	1 976	1 607	3 583	7 120
	15 970	16 030	32 000	16 185	15 345	31 530	63 530

The data collected on non-standard units allowed quantification of household agricultural consumption and production. Price survey data contributed to calculating temporal and spatial deflators.

## 7. Databases

### 7.1. Household Databases

Household databases correspond to data collected using the household questionnaire. In principle, each section of the questionnaire corresponds to a file (in Stata format). The names of the dataset files consist of three main parts that help establish the link between the questionnaire and the Stata databases:

- The first part of the file name refers to the questionnaire section (e.g., s00 for Section 0, s01 for Section 1, s16a for Section 16a, etc.).
- The second part is "me," which refers to the fact that these are household data (to distinguish them from community data), and it is the same for all household files.
- The third part refers to the country and the year of the survey, for example, sen2021 refers to Senegal data, the 2021/2022 edition of the survey.

For example, the file s00\_me\_sen\_2021.dta contains data from Section 0 of Senegal for the 2021/2022 edition of the survey.

Each database contains variables from the respective section. Variables are named with the section number followed by the variable number. For example, s00q01 corresponds to variable q01 in Section s00.

### Use and Integration of Data

In each file, the variables "grappe" (primary sampling unit) and "menage" (household number) are used to identify the household and proceed with matching. For files with another level (individual, field, etc.), there are additional easily identifiable variables in the databases.

Similarly, the variables "grappe" and "menage" allow users to merge data from the current wave with the previous wave (EHCVM1). However, users must note that only households marked as panel in the "PanelHH" variable will have a valid value for merging with the previous wave.

Likewise, each member of the households included in the survey has been assigned a unique identification number, which can be used to merge information about a given household member across different datasets. This variable is "s01q00a" included in the household sociodemographic characteristics module (database s01\_me\_SEN2021). Other datasets have been standardized to include a variable named "sXXq00a" (depending on the database used), which refers to the respondent of the section.

### 7.2. Community Databases

Community databases correspond to data collected using the community questionnaire. They are constructed using the same logic. In naming these databases, the term "co" is used instead of "me". The identification variable is "grappe".

### 7.3. Auxiliary Databases

There are four main auxiliary databases: Prices, NSU (Non-standard Units), Survey Weights, and Calories. These databases are briefly described as follows:

- **Prices:** The price file is named ehcv\_m\_prix\_tgo\_2021. It contains variables related to product prices. Data is collected monthly for each stratum (region/residence type). Key variables include:
  - Region: region of the country where data was collected
  - Residence: type of residence (urban/rural)
  - Year: year of data collection
  - Month: month of data collection
  - Week: week number within the month
  - Codpr: product code
  - Variety: product variety within the code
  - Unit: unit of measurement
  - Weight: product weight
  - Price: product price based on weight and unit
- **NSU (Non-standard Units):** The consumption NSU file is titled ehcv\_m\_NSU\_tgo\_2021. It contains variables related to conversion factors between non-standard and standard units. Data was collected in 2018 and supplemented in 2021. Key variables include:
  - Region: region of the country where data was collected
  - Residence: type of residence (urban/rural)
  - Codpr: product code
  - Unit: unit of measurement
  - Size: size for the considered unit
  - Weight: conversion factor to standard unit
- **Survey Weights:** The weights file is named ehcv\_m\_ponderations\_tgo\_2021. Weights are calculated for each household, considering the panel dimension. Key variables include:
  - Grappe: primary sampling unit
  - Menage: household number within the grappe
  - hhweight: household weight
- **Calories:** The file is titled calorie\_conversion\_WA\_2021. It allows conversion to calories for 100 grams of product, specific to West Africa (WA). Key variables include:
  - Codpr: product code
  - Refuse: percentage of waste in the product
  - Cal: calorie value for 100 grams of product

The household, community, and auxiliary databases are stored in a directory (e.g., "datain") with different subdirectories. The analysis databases, described below, are stored in another directory (e.g., "dataout").

## 7.4. Analysis Databases

Four main databases are created for poverty analysis and other work: an individual database, a household database, a consumption database, and a database for calculating poverty indicators and other analytical work. The do-files used to create these databases are archived and accompany these files. The databases are described below.

- **Individual Database:** The individual file is named ehcv\_m\_individu\_tgo\_2021. This file contains variables created for analysis purposes, either using a unique collected variable or combining multiple variables. Given that these are analysis variables, imputations may have been performed on the original variables.
  - country: Country
  - year: Survey year
  - hhid: Household identifier
  - grappe: Sampling unit number
  - menage: Household number
  - panel: Panel
  - numind: Individual number
  - vague: Wave
  - zae: Agroecological zone
  - zaemil: Group (zae milieu)
  - region: Region of residence
  - departement: Department of residence
  - sp\_commune: Sub-prefecture or commune of residence
  - milieu: Residence type
  - hhweight: Household weight
  - resid: Residence
  - sexe: Gender
  - age: Age in years
  - lien: Relationship
  - mstat: Marital status
  - religion: Religion
  - ethnie: Ethnicity
  - nation: Nationality
  - agemar: Age at first marriage
  - mal30j: Health problem in the last 30 days
  - aff30j: Health issue
  - arrmal: Stopped activity due to illness
  - durarr: Duration of stopping activity due to illness
  - con30j: Consultation in the last 30 days
  - hos12m: Hospitalization in the last 12 months
  - couvmal: Health coverage
  - moustiq: Slept under a mosquito net last night
  - handit: Any level of disability
  - handig: Major disability alone
  - alfa: Literacy (read/write)

- alfa2: Literacy (read/write/understand)
- scol: School attendance in 2020/2021
- educ\_scol: Current educational level
- educ\_hi: Highest educational level completed
- diplome: Highest diploma
- telpor: Individual has a mobile phone
- internet: Individual has internet access
- activ7j: Activity status in the last 7 days
- activ12m: Activity status in the last 12 months
- branch: Activity branch
- sectins: Institutional sector of main employment
- csp: Socio-Professional Category of main employment
- volhor: Annual working hours in main employment
- salaire: Annual salary in main employment
- emploi\_sec: Has a secondary employment in the last 12 months
- sectins\_sec: Institutional sector of secondary employment
- csp\_sec: Socio-professional category of secondary employment
- volhor\_sec: Annual working hours in secondary employment
- salaire\_sec: Annual salary in secondary employment
- bank: Has a bank account or other financial account
- serviceconsult: Health service consulted
- persconsult: Health personnel consulted

• **Household Database:** The household file is named ehcv\_menage\_tgo\_2021. This file contains variables created for analysis purposes. Some household-level variables are created similar to those in the individual file. Other variables pertain to the head of household, in which case they are drawn from the preceding file.

- country: country
- hhid: Household identifier
- grappe: Sampling unit
- menage: Household number within the sampling unit
- vague: Wave
- logem: Housing occupancy
- mur: Walls made of permanent materials
- toit: Roof made of permanent materials
- sol: Floor made of permanent materials
- eauboi\_ss: Potable water in dry season
- eauboi\_sp: Potable water in rainy season
- elec\_ac: Access to electrical grid
- elec\_ur: Uses electricity from the grid
- elec\_ua: Uses solar electricity/group
- ordure: Properly disposed waste
- toilet: Hygienic toilets



- o eva\_toi: Properly disposed excreta
- o eva\_eau: Properly disposed wastewater
- o year: Year
- o tv: Household has TV
- o fer: Household has electric iron
- o frigo: Household has refrigerator/freezer
- o cuisin: Household has electric/gas cooker
- o ordin: Household has computer
- o decod: Household has decoder/antenna
- o car: Household has car
- o superf: Agricultural land area
- o grosrum: Number of large ruminants
- o petitrum: Number of small ruminants
- o porc: Number of pigs
- o lapin: Number of rabbits
- o volail: Number of poultry
- o sh\_id\_demo: Idiosyncratic demographic shock
- o sh\_co\_natu: Natural covariate shock
- o sh\_co\_eco: Economic covariate shock
- o sh\_id\_eco: Idiosyncratic economic shock
- o sh\_co\_vio: Violence covariate shock
- o sh\_co\_oth: Other shocks

• **Consumption Database:** The consumption file is named ehcv\_m\_conso\_tgo2021. The main variable in this file is annual consumption per product and acquisition mode.

- o Grappe: Primary sampling unit
- o Menage: Household number within the sampling unit
- o Codpr: Product code collected
- o Modep: Acquisition mode (purchase, self-consumption, received as gift, imputed rent, value of durable goods usage)
- o Depan: Annual expenditure

• **Poverty Database:** The poverty file is named ehcv\_m\_welfare\_2b\_tgo\_2021. This file contains variables used to calculate poverty indicators and conduct other analytical work.

- o grappe: Primary sampling unit
- o menage: Household number within the sampling unit
- o region: Region of the country under survey
- o milieu: Residence type
- o hhweight: Household weight
- o hhsiz: Household size
- o pcexp: Well-being measure indicator
- o zref: National poverty threshold
- o hhid: Household identifier
- o vague: Wave

- o zae: Agroecological zone
- o eqadu1: FAO adult-equivalent number
- o eqadu2: Alternative adult-equivalent number
- o hgender: Gender of Household Head (HH)
- o hage: Age of Household Head
- o hmstat: Family situation of Household Head
- o hreligion: Religion of Household Head
- o hnation: Nationality of Household Head
- o hethnie: Ethnicity of Household Head
- o halfa: Literacy (read/write) of HH
- o halfa2: Literacy (read/write/understand) of HH
- o heduc: Education level of HH
- o hdiploma: Highest diploma of HH
- o hhandig: Major disability of HH
- o hactiv7j: HH activity in the last 7 days
- o hactiv12m: HH activity in the last 12 months
- o hbranch: HH activity branch
- o hsectins: Institutional sector of HH main employment
- o hcsp: Socio-Professional Category of HH
- o dali: Annual food consumption of the household
- o dnal: Annual non-food consumption of the household
- o dtot: Total annual consumption of the household
- o pcexp: Well-being indicator
- o def\_spa: Spatial deflator
- o def\_temp: Temporal deflator

## ANNEXES

**Tableau 5:** List of Databases

Questionnaire	Database name	Description
Section 0	s00_me_sen_2021	Identification of household
Section 1	s01_me_sen_2021	Socio-demographic characteristics of household members
Section 2	s02_me_sen_2021	Education of household members aged 3 years and older
Section 3	s03_me_sen_2021	Health of household members
Section 4	s04a_me_sen_2021	Employment status of household members aged 5 and older
	s04b_me_sen_2021	Main employment of household members aged 5 and older
	s04c_me_sen_2021	Secondary employment of household members aged 5 and older
Section 5	s05_me_sen_2021	Non-employment income of household members aged 15 and older
Section 6	s06_me_sen_2021	Savings and credit of household members aged 15 and older
Section 7	s07a_1_me_sen_2021	Meals taken outside the household by each household member
	s07a_2_me_sen_2021	Meals taken outside the household by at least two household members
	s07b_me_sen_2021	Food consumption in the last 7 days
Section 8	s08a_me_sen_2021	Food security according to FAO's FIES approach
Section 9	s09a_me_sen_2021	Expenditure on celebrations and ceremonies in the last 12 months
	s09b_me_sen_2021	Non-food expenditures in the last 7 days
	s09c_me_sen_2021	Non-food expenditures in the last 30 days
	s09d_me_sen_2021	Non-food expenditures in the last 3 months
	s09e_me_sen_2021	Non-food expenditures in the last 6 months
	s09f_me_sen_2021	Non-food expenditures in the last 12 months
Section 10	s10a_me_sen_2021	Existence of a non-agricultural enterprise
	s10b_me_sen_2021	Characteristics of non-agricultural enterprises
Section 11	s11_me_sen_2021	Housing characteristics
Section 12	s12_me_sen_2021	Household assets
Section 13	s13_1_me_sen_2021	Identification of households receiving at least one transfer
	s13_2_me_sen_2021	Transfers received by the household
Section 14	s14a_me_sen_2021	Covid-19 and its impact on households
	s14b_me_sen_2021	Other shocks and survival strategies
Section 15	s15_me_sen_2021	Safety nets

Section 16	s16a_me_sen_2021	Fields and plots
	s16b_me_sen_2021	Cost of inputs
	s16c_me_sen_2021	Crops
	s16d_me_sen_2021	Use of production
Section 17	s17_me_sen_2021	Livestock
Section 18	s18_1_me_sen_2021	Identification of households engaged in fishing
	s18_2_me_sen_2021	Characteristics of households engaged in fishing
	s18_3_me_sen_2021	Characteristics of households engaged in fishing
Section 19	s19_me_sen_2021	Agricultural equipment
Section 20	s20a_me_sen_2021	Subjective poverty
	s20b_1_me_sen_2021	Governance
	s20b_2_me_sen_2021	Governance
	s20b_3_me_sen_2021	Governance
	s20c_me_sen_2021	Peace and security