



# Basic Information Document

High Frequency Welfare Monitoring Phone Survey

[UNITED REPUBLIC OF TANZANIA]

## ACRONYMS

CATI	-	Computer Assisted Telephone Interview
DECDG	-	Development Economics Data Group
DECLS	-	Development Economics Living Standards Measurement Team
HBS	-	Household Budget Survey
HH	-	Household
HFWMPS	-	High Frequency Welfare Monitoring Phone Survey
HHID	-	Household Identification
LSMS-ISA	-	Living Standards Measurement Study-Integrated Surveys on Agriculture
NBS	-	National Bureau of Statistics
NPS	-	National Panel Survey
OCGS	-	Office of the Chief Government Statistician
TASAF	-	Tanzania Social Action Fund

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## 1.0 Background

The Tanzania National Panel Survey (NPS) is a long standing nationally representative multi-topic longitudinal household survey. Initially fielded in October 2008, multiple rounds of the NPS have yielded high-quality data on the attributes of Tanzania households and the broader complexities of socio-economic welfare and poverty dynamics across the population. Each round of the NPS provides a representative snapshot of a wealth of indicators, from household composition, education, and health, to economic activities, agricultural, and animal husbandry practices. The longitudinal aspect of the NPS series provides an unrivaled depth of information and analytical potential.

The quality and depth of information available through the NPS series, in addition to its well-established implementation by the Tanzania National Bureau of Statistics (NBS), makes it an ideal platform for the advancement of statistical methodologies. While traditionally the NPS has run at a higher frequency than other nationally representative surveys, providing more frequent statistical results, there is a need for more frequent monitoring and availability of data on temporally variable indicators to inform timely policy. Monitoring quickly changing indicators, such as those related to labour markets, education activities, health service utilization, cash crop markets, agricultural shocks, and prices of goods, combined with advanced modeling, open the gates for timely evaluations and response to development challenges.

Large household surveys under the current implementation, though critical, do not excel in this regard. High frequency data collection requires a substantially different mode of implementation, such as utilizing short phone surveys, to collect key information in a timely and cost-effective manner. High frequency phone surveys, however, come with their own challenges, and substantial effort is required to develop and refine an efficient system within the Tanzania context. Linking the development of a high frequency phone survey infrastructure to the NPS provides the critical inputs necessary to accomplish this goal and add a valuable statistical tool for data driven policy.

### **Objective:**

The overarching objective of a linked NPS high frequency phone survey is to develop a data collection tool within the NBS that can aptly address demand for timely and frequent information at lower cost than traditional household surveys. Within this, the proposed study seeks to interview NPS households via short monthly phone surveys. Information collected from the monthly surveys when combined with the information from the full household instruments of the NPS, offers a means to identify and address potential shortcomings in the length and mode of the high frequency surveys. The study further seeks to gauge the viability of utilizing other frames, such as the Tanzania Mainland and Zanzibar Household Budget Survey (HBS), as bases for future surveys using this mode of data collection, and the feasibility of using this method for accurate nationally representative figures.

### **Survey Activities:**

Implementation of the Tanzania High Frequency Welfare Monitoring Phone Survey (HFWMPS) was undertaken by the NBS, with technical and financial support from the World Bank. Each

monthly survey instrument will contain select indicators and have an interview duration of no longer than 20 minutes. The survey was conducted on a bi-monthly basis over the course of 2-3 weeks. Interviewers were provided with contact information for target households and questionnaires were administered on tablets to participating households. Data was compiled electronically on a central server and reviewed for completeness and accuracy by the NBS. Monthly progress reports in the form of briefs on key indicator are produced. Additional analysis on indicator efficacy through this mode of data collection will be conducted throughout the survey activities.

### **Sample:**

The sample of the HFWMPS was drawn from households in earlier face-to-face surveys including the NPS 2014/15, Mainland HBS 2018, and the Zanzibar HBS 2019/20 as telephone numbers are available from most participants of these surveys. The target sample completion each month is estimated at 3,000 households. The NPS acted as the primary sample frame, complimented by the Mainland and Zanzibar HBS.

## **2.0 Sample and Weights**

### **2.1 Survey Sample**

The primary sample for this activity was drawn from the 2014/15 NPS and 2017/18 HBS. Target sample completion each month is estimated at 3,000 households. The 2014/15 NPS acted as the primary sample frame, complimented by the 2017/18 HBS.

The sample for the HFWMPS was drawn from the 2014/15 NPS and 2017/18 HBS. Both surveys were conducted over a 12-month period and are nationally representative. During the implementation of the surveys, phone numbers are collected from interviewed households and reference persons who are in close contact with the household in order to assist in locating and interviewing households who may have moved in subsequent waves of the survey. This comprehensive set of phone numbers as well as the already well-established relationship between NBS and these households made this an ideal frame from which to conduct the HFWMPS in Tanzania.

To obtain a nationally representative sample for the HFWMPS, a sample size of approximately 3,000 successfully interviewed households was targeted. However, to reach that target, a larger pool of households needed to be selected from the frame due to non-contact and non-response common for telephone surveys. Thus, about 5,750 households were selected to be contacted. All 5,750 households were contacted in the baseline round of the phone survey. **Table 2-1** presents the interview result for the baseline sample. 49.2 percent of sampled households were successfully contacted. Of those contacted, 96 percent or 2,708 households were fully interviewed. These 2,708 households constitute the final successful sample and will be contacted in subsequent rounds of the survey.

Table 2-1: Result of Interview		
	# of households	% of overall sample
<b>Contacted</b>	<b>2829</b>	<b>49.2</b>
Complete	2708	47.1
Partially Complete	45	0.8
Refused	62	1.1
Language barrier	14	0.2
<b>Not contacted</b>	<b>2921</b>	<b>50.8</b>
Nobody answering	52	0.9
Number does not exist	1127	19.6
Phone turned off	685	11.9
Wrong number (don't know the household)	1028	17.9
Reference person can't connect to household	29	0.5

## 2.2 Survey Weights

In order to produce national estimates from the successfully interviewed sample, weights must be applied to the information provided by sampled households. Weights for the NPS and HBS serve as the basis for the HFWMPS, but these weights must be adjusted to reflect the selection and interviewing process for the HFWMPS. The weights for the baseline HFWMPS were calculated in several stages.

1. Begin with the NPS and HBS full sample household weights.
2. Apply an adjustment factor for the **selection into the HFWMPS sample**. This adjustment is simply the inverse probability of selection from the HBS or NPS into the HFWMPS sample:

$$w_{isf}^a = w_{isf}^{base} \times \frac{N_{sf}}{n_{sf}}$$

where  $w_{isf}^{base}$  is the NPS/HBS weight for household  $i$  in stratum<sup>1</sup>  $s$  from frame  $f = \{NBS, HBS\}$ ,  $N_{sf}$  is the total number of households in the stratum from the relevant frame, and  $n_{sf}$  is the number of households selected from the stratum from the relevant frame for inclusion in the HFWMPS sample.

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<sup>1</sup> The stratum refers to the design strata of the HBS and NPS frames which corresponds to the region, by urban/rural status.



3. Apply a **pooling adjustment** which ensures an appropriate balance of weights is maintained between the samples drawn from the two frames. In this case, the adjustment is simply the relative share of the sample in each stratum selected from the frame:

$$w_{isf}^b = w_{isf}^a \times \frac{n_{sf}}{\sum_f n_{sf}}$$

4. Apply a naïve adjustment for **non-response/non-contact of sampled households** through a ratio adjustment at stratum-level:

$$w_{isf}^c = w_{isf}^b \times \frac{n_{sf}}{m_{sf}}$$

where  $m_{sf}$  is the number of successfully interviewed households in the stratum from the relevant frame

5. **Nonresponse bias adjustment factor #1:** apply a response propensity adjustment to account for bias in nonresponding households across the household per capita consumption expenditure distribution. This correction helps to counteract selection bias in the interviewed sample due to differences in household wealth. Interviewed households tended to be richer than households that were not successfully interviewed which if left uncorrected would introduce bias in the HFWMPS sample.

The adjustment was performed via modeled response propensity using a logit model:

$$\ln \left[ \frac{p(x_{if})}{1 - p(x_{if})} \right] = \alpha + \beta_1 E_{if} + \beta_2 E_{if}^2 + \beta_3 E_{if}^3$$

where  $p(x_{if})$  is the probability that household  $i$  from frame  $f$  was successfully interviewed and  $E_{if}$  is the per capita consumption expenditures for the household as measured in the NPS or HBS.<sup>2</sup> Following estimation of the logit model, the predicted probability of each household being interviewed,  $\hat{p}(x_{if})$ , is derived using the model parameters. In principle, the inverse of the predicted probability could serve as the adjustment factor applied to the weights. However, in order to reduce potential distortions due to outliers, all units were sorted into 10 response classes (according to the deciles of  $\hat{p}(x_{if})$ ) and the average predicated probability within each class taken as the adjustment factor. The adjustment factor is then applied to the existing weights.

$$w_{isf}^d = w_{isf}^c \times \frac{1}{\bar{\hat{p}}_{c,iec}(x_{isf})}$$

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<sup>2</sup> Note that the logit model was estimated separately for each of the frames (NPS and HBS) due to differences in the construction of per capita consumption expenditures in the surveys. This is also the reason that this step was performed separately from the calibration adjustments in step 6 below which were performed on the pooled sample (not separately for each frame) using characteristics that are comparable between the NPS and HBS.

Where  $\bar{p}_{c,iec}(x_i)$  is the average predicted probability of response for response class/decile  $c$  and  $c = 1, \dots, 10$ . The adjusted weight was then winsorized at the 5<sup>th</sup> and 95<sup>th</sup> percentiles to reduce the impact of outlier weights following the adjustments. Lastly, a final adjustment is made to the winsorized weights ( $w_{isf}^{d,wins}$ ) to maintain the sum of weights prior to the response propensity adjustment.

$$w_{isf}^e = w_{isf}^{d,wins} \times \frac{\sum_f w_{isf}^c}{\sum_f w_{isf}^{d,wins}}$$

6. **Calibrate the weights** (following adjustments 2-5) according to (1) the profile of basic household characteristics obtained from the full weighted NPS sample and (2) current population estimates (number of households and persons). This calibration step adjusts the weights such that the estimates obtained from the final HFWMPS sample will match the weighted means of the full NPS sample for specified characteristics as well as the population estimates. The calibration on the profile of household characteristics was performed using only information obtained from the NPS interview and thus will only reflect changes in the sample composition and not changes over time. This component of the calibration aims to correct for selection bias that is introduced due to nonresponse. Selection or nonresponse bias is of particular concern in phone surveys since some segment of the population does not have access to a phone and there are more difficult barriers to successfully reach and interview households over the phone. The calibration was applied using the *ReGenesees* package in R using a calibration model that minimizes the distance between the base weights and calibrated weights using a logit distance function. The set of household characteristics included in the calibration includes: region of residence, urban/rural status, household head age (6 categories), household head education level, main type of fuel used for cooking, and household head sex. These characteristics were selected based on two criteria: (1) they were all correlated with nonresponse and (2) they were collected in a comparable manner in both the NPS and HBS. This calibration to household characteristics as well as the nonresponse adjustment in step 5 above according to per capita consumption expenditures will help to counteract selection bias due to nonresponse and noncontact.

In addition to the profile of household characteristics, the weights were also calibrated according to population estimates for 2021 provided by NBS for the 3 regional grouping that correspond to the analytical domains of the HFWMPS (Dar es Salaam, Zanzibar, Other Mainland Tanzania).<sup>3</sup> **Table 2-2** below presents the population estimates used in the calibration.

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<sup>3</sup> Population estimates disaggregated for rural and urban areas were not available.

Table 2-2: Tanzania 2021 Population Estimates		
Domain	Total Population (persons)	Total Number of Households
Dar es Salaam	5,526,638	1,417,087
Zanzibar	1,717,608	336,786
Other Mainland	52,197,742	10,893,359
<b>Total</b>	<b>59,441,988</b>	<b>12,647,231</b>

Source: NBS

7. Lastly, the calibrated weights were **trimmed** at the at the 1<sup>st</sup> and 99<sup>th</sup> percentiles. The trimming was performed using the *ReGenesees* package in R which adjusts the weights to given bounds while minimizing the deviation from the estimates obtained from the calibration in step 6 and maintaining calibration parameters.

The final household weights for round 1 can be found in the household-level data file (*r1\_sect\_a\_3\_4\_5\_6\_7\_8\_10*). The variable name is *wt\_round1*.

### 3.0 Training of Interviewers for the Survey

Personnel were selected from the pool of NBS interviewers that have experience with the Survey Solutions platform and have previously conducted either the NPS or the HBS. During the baseline, the training was conducted virtually to statisticians and IT staff through Skype. The implementation of the survey started by recruitment of interviewers and supervisors for Tanzania Mainland and Zanzibar.

A total of 22 interviewers (19 from Mainland and 3 from Zanzibar) and 4 supervisors were trained to conduct the survey. The training lasted 3 days during baseline survey, and then for two days during subsequent rounds. The trainings focused on providing participants with detailed understanding of the survey and the Computer Assisted Telephone Interview (CATI) techniques, explanation of important concepts and questions in the questionnaire. The training was led by senior technical staff of the NBS, with input from the World Bank team. Following the training, the interviewers carried out mock interviews in order to become more familiar with the questionnaire and interviewing techniques before interviewing respondents. Each interviewer conducted around 4 interviews during the mock interviews. The survey materials (questionnaire and Survey Solutions assignments) were sent to trainees prior to the start of the trainings. This was to ensure that they become familiar with the materials and also have a smooth training.

## **4.0 Field Work**

### **4.1 Organization of Fieldwork**

Data were collected by trained NBS interviewers who individually made phone calls from their respective locations. During the course of the survey, there was constant communication between the interviewers and their supervisors to address any quality issues.

### **4.2 Air-time**

As a show of appreciation for the households' participation, all households that gave consent to be interviewed, were transferred 3,000 Shillings credit to their phones (even if their interviews are only partially completed).

### **4.3 Pre-loaded Information**

Basic information on every household was pre-loaded in the CATI assignments for each interviewer. The information was pre-loaded to (1) assist interviewers in calling and identifying the household and (2) ensure that each pre-loaded person is properly addressed and easily matched to the most recent face-to-face visits. Basic household information (location, household head name, phone number, etc.) was pre-loaded. The list of individuals from 2017/18 HBS and 2014/15 NPS visits and their basic characteristics were uploaded.

### **4.4 Respondents**

The survey had ONE RESPONDENT per household. In the majority of cases, the respondent was the household head. The respondent must be a member of the household. Unlike many other household surveys, interviewers were not expected to seek out other household members to provide their own information. The respondent may still consult with other household members as needed to respond to the questions, including to provide all the necessary information on each household member.

### **4.5 Data Monitoring and Evaluation**

Given that the software used for the data collection allowed for near-real-time access to the completed interviews, supervisors were able to access and review the data as and when the interviewer completes each interview and uploads them to the server. Depending on the quality of the completed interview, the supervisor can either approve or reject with comments. Once a case is rejected, it returns to the interviewer's tablet for the necessary action. The process continues until all quality issues with that case is resolved, after which the supervisor approved the case. Further, the interviews through phone enabled auto-recording of the conversation between interviewer and respondent, allowing for retrieving voice notes to confirm responses where necessary.

## **5.0 Data Management and Description of Datasets**

### **5.1 Computer Assisted Telephone Interview (CATI)**

The HFWMPS exercise was conducted using Computer Assisted Telephone Interview (CATI) techniques. The household questionnaire was implemented using the CATI software, Survey Solutions. The Survey Solutions software was developed and maintained by the Data Analytics and Tools Unit within the Development Economics Data Group (DECDG) at the World Bank. Each interviewer was given a tablet, which they used to conduct the interviews. Overall, implementation of survey using Survey Solutions CATI was highly successful, as it allowed for timely availability of the data from completed interviews.

### **5.2 Data Communication System**

The data communication system used in the HFWMPS was highly automated. Each interviewer was given a mobile modem allowing for internet connectivity and daily synchronization of their tablet. This ensured that headquarters has access to the data in near real-time. Once the interview is completed and uploaded to the server, the data is reviewed by the Supervisors. This activity is done on a daily basis throughout the duration of the survey data collection.

### **5.3 Data Cleaning**

The data cleaning process was done in three main stages. The first stage was to ensure proper quality control during the fieldwork. This was achieved in part by incorporating validation and consistency checks into the Survey Solutions application used for the data collection and designed to highlight many of the errors that occurred during the fieldwork.

The second stage cleaning involved the use of Supervisors in Survey Solutions. As indicated above, once the interview is completed and uploaded to the server, the Supervisors reviewed completed interviews for inconsistencies and extreme values. Depending on the outcome, they can either approve or reject the case. If rejected, the case goes back to the respective interviewer's tablet upon synchronization. The supervisor will provide general and question-specific comments when rejecting a particular completed interview. These errors were then corrected based on another call to the household on the instruction of the supervisor. The data that had gone through this first stage of cleaning and has no issues is then approved by the Supervisor.

The third stage of cleaning involved a comprehensive review of the final raw data following the first and second stage cleaning. Every variable was examined individually for (1) consistency with other sections and variables, (2) out of range responses, and (3) formatting. Some minor errors remain in the data where the diagnosis and/or solution were unclear to the data cleaning team. Handling of these values is thus left entirely to the data user.

## 5.4 Confidential information

Note that, for purposes of maintaining the confidentiality of the data, all names, phone numbers, and addresses have been removed from the datasets.

## 6.0 Using the Data

### 6.1 File Structure

The data should always be used in conjunction with the questionnaire. Where there are no issues of confidentiality, all the variables from the questionnaire have been included in the data sets. In some cases, there is an additional variable which contains the "other specify" information that was written in the questionnaire. So, for example, the other specify variable will be indicated with an “\_os” attached to the variable name such as q5\_os containing the “other specify” information for a variable q5.

### 6.2 Merging Datasets

All datasets contain a variable (***hhid***), which is a unique identifier for the household. This variable is used as the unique key variable in the merging of all household type datasets. In some of the other types of datasets, additional key variables may be required in the merging process. In the case of individual type files, the variable that uniquely identifies the individual in the household is ***indiv***. In order to merge any two individual type files, both the variables ***hhid*** and ***indiv*** would be used.

To merge the current datasets with previous face-to-face survey datasets, it is important to take into account the three different frames from which the phone survey sample was drawn from – NPS 2014/15, Mainland HBS 2017/18 and Zanzibar HBS 2019/20. Merging NPS sample in the phone survey with their respective NPS 2014/15 requires using the unique identifiers ***hhid*** in the phone survey and ***y4\_hhid*** in the NPS 2014/15. Merging the Mainland HBS sample with their respective HBS 2017/18 requires using the unique ***hhid*** in both datasets. Finally, merging the Zanzibar HBS 2019/20 sample with their respective face-to-face dataset using the unique identifiers ***interview key*** in the face-to-face dataset and ***hhid*** in the phone survey data.

## 7.0 Survey Rounds

### 7.1 Round 1 (baseline)

#### 7.1.1 Overview

The HFWMPs Baseline was administered between February 21 and March 15, 2021. A total of 22 interviewers among which 19 from Tanzania Mainland and three enumerators from Zanzibar and 4 supervisors whereby three Tanzania Mainland and one for Zanzibar conducted the survey including three Information Technology staff two from Mainland and one from Zanzibar. Interviewers attempted to reach all 5,750 households selected from the NPS 2014/15 and HBS 2017/18 sample. However, at the end of the survey 2,829 households were contacted and 2,708 of those were successfully interviewed with complete information. More details on the contact/response rates can be found in the table below.

Table 7-1: Round 1 - Result of Interview		
	# of households	% of overall sample
<b>Total Sample</b>	<b>5,750</b>	<b>100.0</b>
<b>Contacted</b>	<b>2,829</b>	<b>49.2</b>
Complete	2,708	47.1
Partially Complete	45	0.8
Refused	62	1.1
Language barrier	14	0.2
<b>Not contacted</b>	<b>2,921</b>	<b>50.8</b>
Nobody answering	52	0.9
Number does not exist	1,127	19.6
Phone turned off	685	11.9
Wrong number (don't know the household)	1,028	17.9
Reference person can't connect to household	29	0.5

#### 7.1.2 Weights

The final household weights for round 1 can be found in the household-level data file (*r1\_sect\_a\_3\_4\_5\_6\_7\_8\_10*). The variable name is *wt\_round1*.

#### 7.1.3 The Survey Instruments

The HFWMPs Baseline consists of one questionnaire. The *Household Questionnaire* was administered to all households in the sample.

**Household Questionnaire:** The Household Questionnaire provides information on demographics; employment; education; access to basic services; food security; TASAF; and mental health. The contents of questionnaire are outlined below.

**Table 7-1: HFWMPS Baseline Questionnaire**

Section	Topic	Description
Cover	Cover	Household and enumerator identifiers
1	Interview Information	Details of call attempts, result and respondent of call attempt, interview consent, date and time of call back, phone numbers called, the information of the person that the listed phone number belongs to.
2	Basic Information	Roster of members of the household, relationship to the household head, gender, age, relationship to head, reason for joining the household if new person, and reason for leaving the household if a member left the household.
3	Employment	Status and information of income-generating activities (wage, family business and farming work), reason for stopped working, reason for not able to perform activities as usual, and reason for reduced revenue from family business.
4	Education	School attendance, type of school attended, learning activities of children at home, return to school, contact with children's teachers during school closure.
5	Access to Basic Services	Household's access to staple food (maize grain, cassava, rice, and maize flour), medical treatment, and reasons for not being able to access the services.
6	Food Security	Household's food security status during the last 30 days
7	TASAF	Households access to TASAF money, use of the money received, challenges encountered in accessing the funds
8	Mental Health	Information on 8 items pertaining to measuring mental health
9	Recontact	Data on how the household can be recontacted in the future, including phone number, time of day they can be reached
10	Interview Results	Result of interview including observation notes by enumerator regarding the interview, respondent and language of interview

#### 7.1.4 Description of Datasets

These modules were administered in the HFWMPS Baseline survey.

- Basic Information - Household Roster
- Employment
- Education
- Access to Basic Services
- Food Security
- TASAF
- Mental Health

**Table 7-2** show the sections of the Questionnaire and their corresponding datasets.



**Table 7-2: Datasets**

Dataset Filename	Section(s)	Section Name(s)
r1_sect_a_3_4_5_6_7_8_10	A, 3, 4, 5, 6, 7, 8, 10	Cover, Employment, Education, Access to Basic Services, Food Security, TASAF, Mental Health, Interview Results
r1_sect_1	1	Interview Information
r1_sect_1b		
r2_sect_2	2	Basic Information – Household Roster

## 7.2 Round 2

### 7.2.1 Overview

The Tanzania HFWMPS Round 2 was administered between April 22 and May 21, 2021. The same 22 interviewers and 4 supervisors were involved in the fieldwork.

### 7.2.2 Sample and weights

Interviewers attempted to contact and interview all 2,732 households that were successfully interviewed (including some partially interviewed) in the baseline of the HFWMPS. As shown in **Table 7-3**, 2,470 households (90.4% of the 2,732 attempted) were contacted and 2,416 (88.4%) were successfully interviewed in the second round. Of those contacted, 44 households refused outright to be interviewed and 9 were partially interviewed.

**Table 7-3: Round 2 - Result of Interview**

	# of households	% of overall sample
<b>Total Sample</b>	<b>2,732</b>	<b>100.0</b>
<b><i>Contacted</i></b>	<b><i>2,470</i></b>	<b><i>90.4</i></b>
Complete	2,416	88.4
Partially Complete	9	0.3
Refused	44	1.6
Language barrier	1	0.0
<b><i>Not contacted</i></b>	<b><i>262</i></b>	<b><i>9.6</i></b>
Nobody answering	26	1.0
Number does not exist	18	0.7
Phone turned off	146	5.3
Wrong number (don't know the household)	54	2.0
Reference person can't connect to household	18	0.7

### *Household weights*

The round 1 household weights were adjusted for noncontact and nonresponse as well as calibrated following the same procedures outlined in section 2.2 (steps 4 to 7). The round 2 weights can be found in the household-level data file (*r2\_sect\_a\_2\_3\_4\_5\_7\_8\_10*). The variable name is *wt\_round2*.

### Individual weights

Given the focus on individual education information in round 2 for school-aged members (4-18 years), an additional individual weight was calculated specifically for use with this sample. The round 2 household weight (which includes the household level nonresponse adjustments) served as the base for the individual education weight. Since all members between 4 and 18 years of age were selected, there was no need for a selection adjustment to this weight. Furthermore, there was zero nonresponse among children in the sample (since the information was collected entirely from the main household respondent) so no nonresponse adjustment was likewise needed. However, the weights were recalibrated to reflect current population estimates for five age groups (4-6, 7-9, 10-12, 13-15, and 16-18 years) and by sex. **Table 7-4** below presents the 2021 population estimates used for the calibration. The calibration of the individual weights followed the same approach outlined in step 6 of Section 3.0 above for the round 1 household weights. The weights were also trimmed according to step 7 of Section 3.0 above, however the cut offs for the trimming were set at the 2<sup>nd</sup> and 98<sup>th</sup> percentiles due to higher volume of outliers in the calibrated individual weights. The variable containing the individual education weight is called *educ\_wt\_r2* and can be found in the individual-level education data file (*r2\_sect\_2\_6.dta*).

Table 7-4 Tanzania 2021 Population Estimates - 4 to 18 years										
Domain	Population by age category and sex									
	4-6 years		7-9 years		10-12 years		13-15 years		16-18 years	
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
Dar es Salaam	236,373	232,764	210,021	207,933	147,857	146,454	144,594	144,836	122,703	125,691
Zanzibar	80,642	79,360	72,126	71,222	57,935	57,749	59,249	59,015	51,796	52,723
Other Mainland	2,490,380	2,445,607	2,157,921	2,138,839	1,888,638	1,885,169	1,937,140	1,923,259	1,709,617	1,720,161
<b>Total</b>	<b>2,807,395</b>	<b>2,757,731</b>	<b>2,440,068</b>	<b>2,417,994</b>	<b>2,094,430</b>	<b>2,089,372</b>	<b>2,140,983</b>	<b>2,127,110</b>	<b>1,884,116</b>	<b>1,898,575</b>

Source: NBS

### 7.2.3 The Survey Instruments

The Tanzania HFWMPs Round 2 consists of one questionnaire. The *Household Questionnaire* was administered to all households in the sample.

**Household Questionnaire:** The Household Questionnaire provides information on demographics; employment; non-farm enterprise; tourism; education; access to health services; and TASAF.

The contents of questionnaire are outlined below.

**Table 7-5: Tanzania HFWMPs Round 2 Questionnaire**

Section	Topic	Description
Cover	Cover	Household identifiers and enumerator identifiers
1	Interview Information	Details of call attempts, result and respondent of call attempt, interview consent, date and time of call back, phone numbers called, the information of the person that the listed phone number belongs to.
2	Basic Information	Roster of members of the household, relationship to the household head, gender, age, relationship to head, reason for joining the household if new person, and reason for leaving the household if a member left the household.
3	Employment	Status and information of income-generating activities (wage work,

Section	Topic	Description
		family business and farming), reason for stopped working, and reason for not able to perform activities as usual.
4	Non-farm Enterprise	Status and information of non-farm income-generating activities, reason for stopped operating, reason for not able to perform activities as usual, and reason for reduced revenue from family business.
5	Tourism	Employment of household members in the tourism sector, and who benefits from tourism in the country.
6	Education (selected members aged 4-18 years)	School attendance, reason for not attending, grade attending, type of school, absence and reason for being absent from school.
7	Access to Health Services	Women's access to pre-natal/post-natal care, household's access to preventative care and medical treatment, and reasons for not being able to access the services
8	TASAF	Households access to the TASAF money, use of the money received, challenges encountered in accessing the funds.
9	Recontact	Data on how the household can be recontacted in the future, including phone number, time of day they can be reached.
10	Interview Results	Result of interview including observation notes by enumerator regarding the interview, respondent and language of interview.

#### 7.2.4 Description of Datasets

These modules were administered in the Tanzania HFWMPS Round 2 survey.

- Basic Information - Household Roster
- Employment
- Non-farm Enterprise
- Tourism
- Education
- Access to Health Services
- TASAF

**Table 7-6** shows the datasets and their corresponding sections of the Questionnaire.

**Table 7-6: Tanzania HFWMPS Round 2 Datasets**

Dataset Filename	Section(s)	Section Name(s)
r2_sect_a_2_3_4_5_7_8_10	A, 2, 3, 4, 5, 7, 8, 10	Cover, Basic Information – Household Roster (Q0), Employment, Non-Farm Enterprise, Tourism, Access to Health Services, TASAF, Interview Results
r2_sect_1	1	Interview Information
r2_sect_1b		
r2_sect_2_6	2	Basic Information – Household Roster, Education

## 7.3 Round 3

### 7.3.1 Overview

The Tanzania HFWMPS Round 3 was administered between June 30 and July 31, 2021 with 22 interviewers and 4 supervisors involved in the fieldwork.

### 7.3.2 Sample and weights

Interviewers attempted to contact and interview all 2,732 households that were successfully interviewed (including some partially interviewed) in the baseline of the HFWMPS. As shown in **Table 7-7**, 2,404 households (88.4% of the 2,719 attempted) were contacted and 2,404 (85.9%) were successfully interviewed in the third round. Of those contacted, 54 households refused outright to be interviewed and 12 were partially interviewed. Of the 2,404 successfully interviewed in Round 3, 2,222 have been interviewed successfully in all three rounds. These are the households that form a complete panel across the three rounds.

Table 7-7: Round 3 - Result of Interview		
	# of households	% of overall sample
<b>Total Sample</b>	<b>2,719</b>	<b>100.0</b>
<b>Contacted</b>	<b>2,404</b>	<b>88.4</b>
Complete	2,335	85.9
Partially Complete	12	0.4
Refused	54	2.0
Language barrier	3	0.1
<b>Not contacted</b>	<b>315</b>	<b>11.6</b>
Nobody answering	48	1.8
Number does not exist	36	1.3
Phone turned off	174	6.4
Wrong number (don't know the household)	36	1.3
Reference person can't connect to household	21	0.8
<b>Panel sample (interviewed in R1, 2, &amp; 3)</b>	<b>2,222</b>	<b>81.7</b>

#### *Household weights*

In Round 3, two different household level weights are provided: cross section and panel weights. The cross-section weights are applicable to the entire round 3 sample while the panel weights are only applicable to round 3 sample households that have been successfully interviewed in all three rounds of the survey so far. For both of these weights, the round 1 household weights were adjusted for noncontact and nonresponse as well as calibrated following the same procedures outlined in section 2.2 (steps 4 to 7). The round 3 weights can be found in the household-level data file (*r3\_sect\_a\_2\_3\_4\_5b\_7\_10*). The cross-section weight is contained in *wt\_round3* while the panel weight can be found in *wt\_panel\_round3*.

#### *Individual weights*

Given the focus on individual employment information in round 3 for working-age members (15-64 years), an additional individual weight was calculated specifically for use with this sample. The

round 3 household weight (which includes the household level nonresponse adjustments) served as the base for the individual employment weight.

Since only 4 eligible working-age members between 15 and 64 years were selected, there was the need for a selection adjustment to this weight. The individual weights for the employment module were calculated according to:

$$w_{ish} = w_h \times \left( \frac{n_{hs}}{N_{hs}} \right)^{-1}$$

Where  $w_{ih}$  is the sampling weight for individual  $i$  who is sex  $s$  (male or female) in household  $h$ ,  $w_h$  is the final household level weight (i.e. wt\_round3),  $N_{hs}$  is the total number of eligible household members (aged 15-64) of sex  $s$  in household  $h$  and  $n_{hs}$  is the equivalent number of selected eligible individuals in the household. The individual weights were then calibrated to correspond to the sex and age4 distribution of the total working age population according to the NPS 2014/15 and the HBS 2017/18.

The calibration was done using the 2021 population estimates contained in **Table 7-4** above. The calibration of the individual weights followed the same approach outlined in step 6 of Section 3.0 above for the round 1 household weights. The weights were also trimmed according to step 7 of Section 3.0 above, however the cut offs for the trimming were set at the 2<sup>nd</sup> and 98<sup>th</sup> percentiles due to higher volume of outliers in the calibrated individual weights.

The basic individual weight described above is the cross section individual weight that considers all individuals that employment information was collected on. This weight is called **labor\_wt\_r3** and can be found in the individual-level employment data file (**r3\_sect\_2\_3b**).

### 7.3.3 The Survey Instruments

The Tanzania HFWMPS Round 3 consists of one questionnaire. The **Household Questionnaire** was administered to all households in the sample.

**Household Questionnaire:** The Household Questionnaire provides information on demographics; employment (respondent and other household members); non-farm enterprise; credit; women savings; and shocks and coping.

The contents of questionnaire are outlined below.

**Table 7-8: Tanzania HFWMPS Round 3 Questionnaire**

Section	Topic	Description
Cover	Cover	Household identifiers and enumerator identifiers
1	Interview Information	Details of call attempts, result and respondent of call attempt, interview consent, date and time of call back, phone numbers called, the information of the person that the listed phone number belongs to.

<sup>4</sup> The age groups considered in the calibration were 15-24, 25-34, 35-44, 45-54, 55-64 years, all further disaggregated by sex (male/female).

Section	Topic	Description
2	Basic Information	Roster of members of the household, relationship to the household head, gender, age, relationship to head, reason for joining the household if new person, and reason for leaving the household if a member left the household.
3	Employment (respondent)	Status and information of income-generating activities (wage work, family business and farming), reason for stopped working, and reason for not able to perform activities as usual
3b	Employment (other members)	Status in employment (current and 2020), consistency of work in 2020, why currently not working, job search, change in jobs, actual job.
4	Non-farm Enterprise	Status and information of non-farm income-generating activities, reason for stopped operating, reason for not able to perform activities as usual, and reason for reduced revenue from family businesses
5b	Credit	Households' debts status since the beginning of the coronavirus pandemic; use of loan, ability to repay loan when their scheduled payment is due.
7	Women Savings	Women having bank accounts in financial institutions and changes in their savings since the start of the pandemic
11	Shocks and Coping	Shocks that affected household since the baseline interview and their coping strategies
9	Recontact	Data on how the household can be recontacted in the future, including phone number, time of day they can be reached.
10	Interview Results	Result of interview including observation notes by enumerator regarding the interview, respondent and language of interview.

### 7.3.4 Description of Datasets

These modules were administered in the Tanzania HFWMPS Round 3 survey.

- Basic Information - Household Roster
- Employment (respondent)
- Employment (other household members)
- Non-farm Enterprise
- Women Savings
- Credit
- Shocks and Coping

**Table 7-9** shows the datasets and their corresponding sections of the Questionnaire.

**Table 7-9: Tanzania HFWMPS Round 3 Datasets**

Dataset Filename	Section(s)	Section Name(s)
r3_sect_a_2_3_4_5b_7_10	A, 2, 3, 4, 5b, 7, 10	Cover, Basic Information – Household Roster (Q0), Employment, Non-Farm Enterprise, Credit, Women Savings, Interview Results
r3_sect_1	1	Interview Information
r3_sect_1b		

r3_sect_2_3b	2	Basic Information – Household Roster, Employment (other members)
r3_sect_11	11	Shocks and Coping

## 7.4 Round 4

### 7.4.1 Overview

The Tanzania HFWMPS Round 4 was administered between September 10 and October 8, 2021. A total of 22 interviewers and 2 supervisors were involved in the fieldwork.

### 7.4.2 Sample and weights

Interviewers attempted to contact and interview all 2,710 households that were successfully interviewed (including some partially interviewed) in the baseline of the HFWMPS. As shown in **Table 7-10**, 2,404 households (88.4% of the 2,719 attempted) were contacted and 2,404 (85.9%) were successfully interviewed in the third round. Of those contacted, 54 households refused outright to be interviewed and 12 were partially interviewed.

Table 7-10: Round 4 - Result of Interview		
	# of households	% of overall sample
<b>Total Sample</b>	<b>2,710</b>	<b>100.0</b>
<b>Contacted</b>	<b>2,378</b>	<b>87.7</b>
Complete	2,313	85.4
Partially Complete	5	0.2
Refused	59	2.2
Language barrier	1	0.0
<b>Not contacted</b>	<b>332</b>	<b>12.3</b>
Nobody answering	43	1.6
Number does not exist	45	1.7
Phone turned off	189	7.0
Wrong number (don't know the household)	41	1.5
Reference person can't connect to household	14	0.5
<b>Panel sample (interviewed in R1, 2, 3, &amp; 4)</b>	<b>2,191</b>	<b>80.8</b>

### Household weights

In Round 4, two different weights are provided: cross section and panel weights. The cross-section weights are applicable to the entire round 4 sample while the panel weights are only applicable to round 4 sample households that have been successfully interviewed in all four rounds of the survey so far. For both of these weights, the round 1 household weights were adjusted for noncontact and nonresponse as well as calibrated following the same procedures outlined in section 2.2 (steps 4 to 7). The round 4 weights can be found in the household-level data file (r4\_sect\_a\_2\_3\_4\_9b\_10). The cross-section weight is contained in *wt\_round4* while the panel weight can be found in *wt\_panel\_round4*.

### 7.4.3 The Survey Instruments

The Tanzania HFWMPS Round 4 consists of one questionnaire. The *Household Questionnaire* was administered to all households in the sample.

*Household Questionnaire:* The Household Questionnaire provides information on demographics; employment; non-farm enterprise; digital technology; and income changes

The contents of questionnaire are outlined below.

**Table 7-11: Tanzania HFWMPS Round 4 Questionnaire**

Section	Topic	Description
Cover	Cover	Household identifiers and enumerator identifiers
1	Interview Information	Details of call attempts, result and respondent of call attempt, interview consent, date and time of call back, phone numbers called, the information of the person that the listed phone number belongs to.
2	Basic Information	Roster of members of the household, relationship to the household head, gender, age, relationship to head, reason for joining the household if new, and reason for leaving the household if person left
3	Employment (respondent)	Status and information of income-generating activities (wage work, family business and farming), reason for stopped working, and reason for not able to perform activities as usual
4	Non-farm Enterprise	Status and information of non-farm income-generating activities, reason for stopped operating, reason for not able to perform activities as usual, and reason for reduced revenue from family business
7	Income changes	Household's sources of livelihood
9B	Digital Technology	Household ownership of phones, computers and digital devices, access to internet and challenges in accessing internet
9	Recontact	Data on how the household can be recontacted in the future, including phone number, time of day they can be reached
10	Interview Results	Result of interview including observation notes by enumerator regarding the interview, respondent and language of interview

### 7.4.4 Description of Datasets

These modules were administered in the Tanzania HFWMPS Round 4 survey.

- Basic Information - Household Roster
- Employment (respondent)
- Employment (other household members)
- Non-farm Enterprise
- Women Savings
- Credit
- Shocks and Coping

**Table 7-12** shows the datasets and their corresponding sections of the Questionnaire.



**Table 7-12: Tanzania HFWMPS Round 4 Datasets**

Dataset Filename	Section(s)	Section Name(s)
r4_sect_a_2_3_4_9b_10	A, 2, 3, 4, 9b, 10	Cover, Basic Information – Household Roster (Q0), Employment, Non-Farm Enterprise, Digital technology, Interview Results
r4_sect_1	1	Interview Information
r4_sect_1b		
r4_sect_2	2	Basic Information – Household Roster
r4_sect_7	7	Income Changes

## 7.5 Round 5

### 7.5.1 Overview

The Tanzania HFWMPS Round 5 was administered between November 30 and December 23, 2021. A total of 22 interviewers and 4 supervisors and 3 IT staff were involved in the fieldwork.

### 7.5.2 Sample and weights

Interviewers attempted to contact and interview all 2,700 households that were successfully interviewed (including some partially interviewed) in the baseline of the HFWMPS. As shown in **Table 7-13**, 2,251 households (83.4% of the 2,700 attempted) were contacted and 2,193 (85.9%) were successfully interviewed in the fifth round. Of those contacted, 46 households refused outright to be interviewed and 10 were partially interviewed.

**Table 7-13: Round 5 - Result of Interview**

	# of households	% of overall sample
<b>Total Sample</b>	<b>2,700</b>	<b>100.0</b>
<b><i>Contacted</i></b>	<b><i>2,251</i></b>	<b><i>83.4</i></b>
Complete	2,193	81.2
Partially Complete	10	0.4
Refused	46	1.7
Language barrier	2	0.1
<b><i>Not contacted</i></b>	<b><i>449</i></b>	<b><i>16.6</i></b>
Nobody answering	76	2.8
Number does not exist	76	2.8
Phone turned off	254	9.4
Wrong number (don't know the household)	37	1.4
Reference person can't connect to household	6	0.2
<b>Panel sample (interviewed in R1, 2, 3, 4, &amp; 5)</b>	<b>2,080</b>	<b>77.0</b>

### *Household weights*

In Round 5, two different weights are provided: cross section and panel weights. The cross-section weights are applicable to the entire round 5 sample while the panel weights are only applicable to round 5 sample households that have been successfully interviewed in all four rounds of the survey so far. For both of these weights, the round 1 household weights were adjusted for noncontact and nonresponse as well as calibrated following the same procedures outlined in section 2.2 (steps 4 to 7). The round 5 weights can be found in the household-level data file (*r5\_sect\_a\_2\_3\_4\_5f\_9a\_10*). The cross-section weight is contained in *wt\_round5* while the panel weight can be found in *wt\_panel\_round5*.

### **7.5.3 The Survey Instruments**

The Tanzania HFWMPS Round 5 consists of one questionnaire. The *Household Questionnaire* was administered to all households in the sample.

***Household Questionnaire:*** The Household Questionnaire provides information on demographics; employment; non-farm enterprise; COVID-19 Vaccine; access to health services; and youth contact details.

The contents of questionnaire are outlined below.

**Table 7-14: Tanzania HFWMPS Round 5 Questionnaire**

Section	Topic	Description
Cover	Cover	Household identifiers and enumerator identifiers
1	Interview Information	Details of call attempts, result and respondent of call attempt, interview consent, date and time of call back, phone numbers called, the information of the person that the listed phone number belongs to
2	Basic Information	Roster of members of the household, relationship to the household head, gender, age, relationship to head, reason for joining the household if new, and reason for leaving the household if left
3	Employment (respondent)	Status and information of income-generating activities (wage work, family business and farming), reason for stopped working, and reason for not able to perform activities as usual.
4	Non-farm Enterprise	Status and information of non-farm income-generating activities, reason for stopped operating, reason for not able to perform activities as usual, and reason for reduced revenue from family businesses.
5D	Youth Contact Details	Administered to randomly selected household members aged 15-25 years old. Ownership of working cell phone and phone numbers were administered here.
5F	Health Access	Household's access to medical services, and reasons for not being able to access the services.
9A	COVID-19 Vaccine	Respondent perception of the COVID-19 vaccine, willingness to take the vaccine, information about the vaccine, and sources of such information
9	Recontact	Data on how the household can be recontacted in the future, including phone number, time of day they can be reached in the future
10	Interview Results	Result of interview including observation notes by enumerator regarding the interview, respondent and language of interview

### 7.5.4 Description of Datasets

These modules were administered in the Tanzania HFWMPS Round 5 survey.

- Basic Information - Household Roster
- Employment (respondent)
- Employment (other household members)
- Non-farm Enterprise
- COVID-19 Vaccine
- Health Access
- Youth Contact Details

**Table 7-15** shows the datasets and their corresponding sections of the Questionnaire.

**Table 7-15: Tanzania HFWMPS Round 5 Datasets**

Dataset Filename	Section(s)	Section Name(s)
r5_sect_a_2_3_4_5f_9a_10	A, 2, 3, 4, 5f, 9a, 10	Cover, Basic Information – Household Roster (Q0), Employment, Non-Farm Enterprise, Health Access, COVID-19 Vaccine, Interview Results
r5_sect_1	1	Interview Information
r5_sect_1b		
r5_sect_2	2	Basic Information – Household Roster
r5_sect_5f	7	Health Access

## 7.6 Round 6

### 7.6.1 Overview

The Tanzania HFWMPS Round 6 was administered between June 29 and July 20, 2022. A total of 21 interviewers, 4 supervisors and 3 IT staff were involved in the fieldwork.

### 7.5.2 Sample and weights

Interviewers attempted to contact and interview all 2,700 households that were successfully interviewed (including some partially interviewed) in the baseline of the HFWMPS. As shown in **Table 7-16**, 2,251 households (83.4% of the 2,700 attempted) were contacted and 2,193 (85.9%) were successfully interviewed in the sixth round. Of those contacted, 46 households refused outright to be interviewed and 10 were partially interviewed.

**Table 7-16: Round 6 - Result of Interview**

	# of households	% of overall sample
<b>Total Sample</b>	<b>2,669</b>	<b>100.0</b>
<b>Contacted</b>	<b>2,226</b>	<b>83.4</b>
Complete	2,175	81.5
Partially Complete	6	0.2
Refused	45	1.7

Language barrier	0	0.0
<b>Not contacted</b>	<b>443</b>	<b>16.6</b>
Nobody answering	51	1.9
Number does not exist	83	3.1
Phone turned off	238	8.9
Wrong number (don't know the household)	65	2.4
Reference person can't connect to household	6	0.2
<b>Panel sample (interviewed in R1, 2, 3, 4, 5, &amp; 6)</b>	<b>2,059</b>	<b>77.1</b>

### *Household weights*

In Round 6, two different weights are provided: cross section and panel weights. The cross-section weights are applicable to the entire round 6 sample while the panel weights are only applicable to round 6 sample households that have been successfully interviewed in all six rounds of the survey so far. For both weights, the round 1 household weights were adjusted for noncontact and nonresponse as well as calibrated following the same procedures outlined in section 2.2 (steps 4 to 7). The round 6 weights can be found in the household-level data file (*r6\_sect\_a\_2\_3\_5\_7\_10*). The cross-section weight is contained in *wt\_round6* while the panel weight can be found in *wt\_panel\_round6*.

### **7.5.3 The Survey Instruments**

The Tanzania HFWMPS Round 6 consists of one questionnaire. The *Household Questionnaire* was administered to all households in the sample.

**Household Questionnaire:** The Household Questionnaire provides information on demographics; employment; non-farm enterprise; COVID-19 Vaccine; access to health services; and youth contact details.

The contents of questionnaire are outlined below.

**Table 7-17: Tanzania HFWMPS Round 6 Questionnaire**

Section	Topic	Description
Cover	Cover	Household identifiers and enumerator identifiers
1	Interview Information	Details of call attempts, result and respondent of call attempt, interview consent, date and time of call back, phone numbers called, the information of the person that the listed phone number belongs to
2	Basic Information	Roster of members of the household, relationship to the household head, gender, age, relationship to head, reason for joining the household if new, and reason for leaving the household if left
3	Employment (respondent)	Status and information of income-generating activities (wage work, family business and farming), reason for stopped working, and reason for not able to perform activities as usual.
5	Economic Sentiments	How household feels about past and future household economic situation, past and future country economic situation, past and future consumer

Section	Topic	Description
		prices, major household purchases, extreme weather shocks to household's financial status in the future
6	Food Prices	Availability of specific food items in the country, current price of the item, as well as price of the same item 30 days prior.
7	Fuel Prices	Household has ever bought petrol/diesel, last time household purchased petrol, difficulties encountered when purchasing petrol
9	Recontact	Data on how the household can be recontacted in the future, including phone number, time of day they can be reached in the future
10	Interview Results	Result of interview including observation notes by enumerator regarding the interview, respondent and language of interview

#### 7.5.4 Description of Datasets

These modules were administered in the Tanzania HFWMPS Round 6 survey.

- Basic Information - Household Roster
- Employment (respondent)
- Employment (other household members)
- Economic Sentiments
- Food Prices
- Fuel Prices

**Table 7-18** shows the datasets and their corresponding sections of the Questionnaire.

**Table 7-18: Tanzania HFWMPS Round 6 Datasets**

Dataset Filename	Section(s)	Section Name(s)
r6_sect_a_2_3_5_7_10	A, 2, 3, 5, 7, 10	Cover, Basic Information – Household Roster (Q0), Employment, Economic Sentiments, Fuel Prices, Interview Results
r6_sect_1	1	Interview Information
r6_sect_1b		
r6_sect_2	2	Basic Information – Household Roster
r6_sect_6	6	Food Prices

## 7.7 Round 7

### 7.7.1 Overview

The Tanzania HFWMPS Round 7 was administered between June 09 and July 01, 2023. A total of 23 interviewers, 4 supervisors and 3 IT staff were involved in the fieldwork.

### 7.7.2 Sample and weights

Interviewers attempted to contact and interview all 2,700 households that were successfully interviewed (including some partially interviewed) in the baseline of the HFWMPS. As shown in **Table 7-19**, 2,160 households (80.4% of the 2,687 attempted) were contacted and 2,106 (78.0%)

were successfully interviewed in the seventh round. Of those contacted, 47 households refused outright to be interviewed and 7 were partially interviewed.

Table 7-19: Round 7 - Result of Interview		
	# of households	% of overall sample
<b>Total Sample</b>	<b>2,687</b>	<b>100.0</b>
<b><i>Contacted</i></b>	<b><i>2,160</i></b>	<b><i>80.4</i></b>
Complete	2,106	78.4
Partially Complete	7	0.3
Refused	47	1.8
Language barrier	0	0.0
<b><i>Not contacted</i></b>	<b><i>527</i></b>	<b><i>19.6</i></b>
Nobody answering	57	2.1
Number does not exist	88	3.3
Phone turned off	258	9.6
Wrong number (don't know the household)	116	4.3
Reference person can't connect to household	8	0.3
<b>Panel sample (interviewed in R1, 2, 3, 4, 5, 6, &amp; 7)</b>	<b>1,991</b>	<b>74.1</b>

### *Household weights*

In Round 7, two different weights are provided: cross-section and panel weights. The cross-section weights are applicable to the entire round 7 sample while the panel weights are only applicable to round 7 sample households that have been successfully interviewed in all seven rounds of the survey so far. For both weights, the round 1 household weights were adjusted for noncontact and nonresponse as well as calibrated following the same procedures outlined in section 2.2 (Steps 4 to 7). The round 7 weights can be found in the household-level data file (r7\_sect\_a\_2\_3\_4\_11\_12a\_10.dta). The cross-section weight is contained in *wt\_round7* while the panel weight can be found in *wt\_panel\_round7*.

### **7.7.3 The Survey Instruments**

The Tanzania HFWMPS Round 7 consists of one questionnaire. The *Household Questionnaire* was administered to all households in the sample.

***Household Questionnaire:*** The Household Questionnaire provides information on demographics; employment; economic sentiments; access to essential goods and services; food prices; energy prices; transportation prices; food insecurity; dietary diversity, and subjective welfare.

The contents of questionnaire are outlined below.

**Table 7-20: Tanzania HFWMPS Round 7 Questionnaire**

Section	Topic	Description
Cover	Cover	Household identifiers and enumerator identifiers
1	Interview Information	Details of call attempts, result and respondent of call attempt, interview

Section	Topic	Description
		consent, date and time of call back, phone numbers called, the information of the person that the listed phone number belongs to.
2	Basic Information	Roster of members of the household, relationship to the household head, gender, age, relationship to head, reason for joining the household if new, and reason for leaving the household if left.
3	Employment (respondent)	Status and information of income-generating activities (wage work, family business and farming), reason for stopped working, and reason for not able to perform activities as usual.
4	Economic Sentiments	Household interpretations of past and future household economic situation, past and future country economic situation, past and future consumer prices, major household purchases, and extreme weather shocks to household's financial status in the future.
5	Access to Goods and Services	Household's access to staple foods (maize grain, cassava, rice, and maize flour), essential goods (medicine, soap, fuel/gasoline, and fertilizers) and reasons for not being able to access the goods and services.
6	Food Prices	Availability of specific food items in the country, current price of the item, as well as price of the same item 30 days prior.
7	Energy Prices	Household purchases of energy/fuel (petrol, diesel, LPG, kerosene), last purchase of energy/fuel, number of liters purchased, total amount paid, and changes in the price in the last month.
8	Transportation Prices	Mode of transportation for selected destinations, amount paid in total, as well as changes in the price in last month.
11	Subjective Welfare	How the household feels about their food consumption, housing, clothing, health care, and the level of current household income over the past one month.
12a	Food Insecurity	Household's food security status during the last 30 days.
12b	Dietary Diversity	Household's consumption of a variety of food groups over the last 7 days, as well as how the food was acquired.
9	Recontact Information	Data on how the household can be recontacted in the future, including phone number, time of day they can be reached in the future
10	Interview Results	Result of interview including observation notes by enumerator regarding the interview, respondent and language of interview

#### 7.7.4 Description of Datasets

These modules were administered in the Tanzania HFWMPS Round 7 survey.

- Basic Information - Household Roster
- Employment (respondent)
- Economic Sentiments
- Food Prices
- Energy Prices
- Transportation Prices
- Subjective Welfare
- Food Insecurity
- Dietary Diversity

**Table 7-21** shows the datasets and their corresponding sections of the Questionnaire.

**Table 7-21: Tanzania HFWMPS Round 7 Datasets**

Dataset Filename	Section(s)	Section Name(s)
r7_sect_a_2_3_4_11_12a_10	A, 2, 3, 4, 11, 12a, 10	Cover, Basic Information – Household Roster (Q0), Employment, Economic Sentiments, Subjective Welfare, Food Insecurity, Interview Results
r7_sect_1	1	Interview Information
r7_sect_1b		
r7_sect_2	2	Basic Information – Household Roster
r7_sect_5	5	Access to Essential Goods and Services
r7_sect_6	6	Food Prices
r7_sect_7	7	Energy Prices
r7_sect_8	8	Transportation Prices
r7_sect_12b	12b	Dietary Diversity

## 7.8 Round 8

### 7.8.1 Overview

The Tanzania HFWMPS Round 8 was administered between August 23 and September 13, 2023. A total of 21 interviewers, 4 supervisors and 3 IT staff were involved in the fieldwork.

### 7.8.2 Sample and weights

Interviewers attempted to contact and interview all 2,700 households that were successfully interviewed (including some partially interviewed) in the baseline of the HFWMPS. As shown in **Table 7-22**, 2,093 households (79.3% of the 2,638 attempted) were contacted and 2,038 (77.3%) were successfully interviewed in the eighth round. Of those contacted, 48 households refused outright to be interviewed and 7 were partially interviewed.

**Table 7-22: Round 8 - Result of Interview**

	# of households	% of overall sample
<b>Total Sample</b>	<b>2,638</b>	<b>100.0</b>
<b>Contacted</b>	<b>2,093</b>	<b>79.3</b>
Complete	2,038	77.3
Partially Complete	7	0.3
Refused	48	1.8
Language barrier	0	0.0
<b>Not contacted</b>	<b>545</b>	<b>20.7</b>
Nobody answering	67	2.5
Number does not exist	96	3.6
Phone turned off	250	9.5



Wrong number (don't know the household)	117	4.4
Reference person can't connect to household	14	0.6
<b>Panel sample (interviewed in R1, 2, 3, 4, 5, 6, 7 &amp; 8)</b>	<b>1,929</b>	<b>73.1</b>

### *Household weights*

In Round 8, two different weights are provided: cross-section and panel weights. The cross-section weights are applicable to the entire round 8 sample while the panel weights are only applicable to round 8 sample households that have been successfully interviewed in all eight rounds of the survey so far. For both weights, the round 1 household weights were adjusted for noncontact and nonresponse as well as calibrated following the same procedures outlined in section 2.2 (Steps 4 to 7). The round 8 weights can be found in the household-level data file (r8\_sect\_a\_2\_3\_4\_4a\_11\_12a\_10.dta). The cross-section weight is contained in *wt\_round8* while the panel weight can be found in *wt\_panel\_round8*.

### **7.8.3 The Survey Instruments**

The Tanzania HFWMPS Round 8 consists of one questionnaire. The *Household Questionnaire* was administered to all households in the sample.

**Household Questionnaire:** The Household Questionnaire provides information on demographics; employment; economic sentiments; access to essential goods and services; food prices; energy prices; transportation prices; food insecurity; dietary diversity, and subjective welfare.

The contents of questionnaire are outlined below.

**Table 7-23: Tanzania HFWMPS Round 8 Questionnaire**

Section	Topic	Description
Cover	Cover	Household identifiers and enumerator identifiers
1	Interview Information	Details of call attempts, result and respondent of call attempt, interview consent, date and time of call back, phone numbers called, the information of the person that the listed phone number belongs to.
2	Basic Information	Roster of members of the household, relationship to the household head, gender, age, relationship to head, reason for joining the household if new, and reason for leaving the household if left.
3	Employment (respondent)	Status and information of income-generating activities (wage work, family business and farming), reason for stopped working, and reason for not able to perform activities as usual.
4a	Economic Sentiments	Household interpretations of past and future household economic situation, past and future country economic situation, past and future consumer prices, major household purchases, and extreme weather shocks to household's financial status in the future.
4	Non-Farm Enterprise	Status and information of non-farm income-generating activities, reason for stopped operating, reason for not able to perform activities as usual, and reason for reduced revenue from family business
5	Access to Goods and Services	Household's access to staple foods (maize grain, cassava, rice, and maize flour), essential goods (medicine, soap, fuel/gasoline, and fertilizers) and reasons for not being able to access the goods and services.
6	Food Prices	Availability of specific food items in the country, current price of the

Section	Topic	Description
		item, as well as price of the same item 30 days prior.
7	Energy Prices	Household purchases of energy/fuel (petrol, diesel, LPG, kerosene), last purchase of energy/fuel, number of liters purchased, total amount paid, and changes in the price in the last month.
8	Transportation Prices	Mode of transportation for selected destinations, amount paid in total, as well as changes in the price in last month.
11	Subjective Welfare	How the household feels about their food consumption, housing, clothing, health care, and the level of current household income over the past one month.
12a	Food Insecurity	Household's food security status during the last 30 days.
12b	Dietary Diversity	Household's consumption of a variety of food groups over the last 7 days, as well as how the food was acquired.
9	Recontact Information	Data on how the household can be recontacted in the future, including phone number, time of day they can be reached in the future
10	Interview Results	Result of interview including observation notes by enumerator regarding the interview, respondent and language of interview

#### 7.8.4 Description of Datasets

These modules were administered in the Tanzania HFWMPS Round 8 survey.

- Basic Information - Household Roster
- Employment (respondent)
- Economic Sentiments
- Non-Farm Enterprise
- Food Prices
- Energy Prices
- Transportation Prices
- Subjective Welfare
- Food Insecurity
- Dietary Diversity

**Table 7-24** shows the datasets and their corresponding sections of the Questionnaire.

**Table 7-24: Tanzania HFWMPS Round 8 Datasets**

Dataset Filename	Section(s)	Section Name(s)
r8_sect_a_2_3_4_4a_11_12a_10	A, 2, 3, 4, 4a, 11, 12a, 10	Cover, Basic Information – Household Roster (Q0), Employment, Economic Sentiments, Non-Farm Enterprise, Subjective Welfare, Food Insecurity, Interview Results
r8_sect_1	1	Interview Information
r8_sect_1b		
r8_sect_2	2	Basic Information – Household Roster

r8_sect_5	5	Access to Essential Goods and Services
r8_sect_6	6	Food Prices
r8_sect_7	7	Energy Prices
r8_sect_8	8	Transportation Prices
r8_sect_12b	12b	Dietary Diversity

## 7.9 Round 9

### 7.9.1 Overview

The Tanzania HFWMPS Round 9 was administered between October 23<sup>rd</sup> and November 13<sup>th</sup>, 2023. A total of 21 interviewers, 4 supervisors and 3 IT staff were involved in the fieldwork.

### 7.9.2 Sample and weights

Interviewers attempted to contact and interview all 2,700 households that were successfully interviewed (including some partially interviewed) in the baseline of the HFWMPS. As shown in **Table 7-24**, 2,033 households (78.5% of the 2,589 attempted) were contacted and 1,990 (76.9%) were successfully interviewed in the ninth round. Of those contacted, 37 households refused outright to be interviewed and 6 were partially interviewed.

Table 7-24: Round 9 - Result of Interview		
	# of households	% of overall sample
<b>Total Sample</b>	<b>2,589</b>	<b>100.0</b>
<b><i>Contacted</i></b>	<b><i>2,033</i></b>	<b><i>78.5</i></b>
Complete	1,990	76.9
Partially Complete	6	0.3
Refused	37	1.4
Language barrier	0	0.0
<b><i>Not contacted</i></b>	<b><i>556</i></b>	<b><i>21.5</i></b>
Nobody answering	88	3.4
Number does not exist	87	3.4
Phone turned off	254	9.8
Wrong number (don't know the household)	110	4.2
Reference person can't connect to household	17	0.7
<b>Panel sample (interviewed in all 9 rounds)</b>	<b>1,885</b>	<b>72.8</b>

### Household weights

In Round 9, two different weights are provided: cross-section and panel weights. The cross-section weights are applicable to the entire round 9 sample while the panel weights are only applicable to round 9 sample households that have been successfully interviewed in all nine rounds of the survey so far. For both weights, the round 1 household weights were adjusted for noncontact and nonresponse as well as calibrated following the same procedures outlined in section 2.2 (Steps 4 to 7). The round 9 weights can be found in the household-level data file

(r9\_sect\_a\_2\_3\_4\_4a\_11\_12a\_10.dta). The cross-section weight is contained in *wt\_round9* while the panel weight can be found in *wt\_panel\_round9*.

### 7.5.3 The Survey Instruments

The Tanzania HFWMPS Round 9 consists of one questionnaire. The *Household Questionnaire* was administered to all households in the sample.

**Household Questionnaire:** The Household Questionnaire provides information on demographics; employment; economic sentiments; access to essential goods and services; food prices; energy prices; transportation prices; food insecurity; dietary diversity, and subjective welfare.

The contents of questionnaire are outlined below.

**Table 7-25: Tanzania HFWMPS Round 9 Questionnaire**

Section	Topic	Description
Cover	Cover	Household identifiers and enumerator identifiers
1	Interview Information	Details of call attempts, result and respondent of call attempt, interview consent, date and time of call back, phone numbers called, the information of the person that the listed phone number belongs to.
2	Basic Information	Roster of members of the household, relationship to the household head, gender, age, relationship to head, reason for joining the household if new, and reason for leaving the household if left.
3	Employment	Status and information of income-generating activities (wage work, family business and farming), reason for stopped working, and reason for not able to perform activities as usual.
4	Economic Sentiments	Household interpretations of past and future household economic situation, past and future country economic situation, past and future consumer prices, major household purchases, and extreme weather shocks to household's financial status in the future.
5	Access to Goods and Services	Household's access to staple foods (maize grain, cassava, rice, and maize flour), essential goods (medicine, soap, fuel/gasoline, and fertilizers) and reasons for not being able to access the goods and services.
6	Food Prices	Availability of specific food items in the country, current price of the item, as well as price of the same item 30 days prior.
7	Energy Prices	Household purchases of energy/fuel (petrol, diesel, LPG, kerosene), last purchase of energy/fuel, number of liters purchased, total amount paid, and changes in the price in the last month.
8	Transportation Prices	Mode of transportation for selected destinations, amount paid in total, as well as changes in the price in last month.
11	Subjective Welfare	How the household feels about their food consumption, housing, clothing, health care, and the level of current household income over the past one month.
12a	Food Insecurity	Household's food security status during the last 30 days.
12b	Dietary Diversity	Household's consumption of a variety of food groups over the last 7 days, as well as how the food was acquired.
14	Agriculture - Crops	Household participation in agricultural activities, including crop cultivation, harvest, sales, input use, and extension services.

Section	Topic	Description
15	Agriculture - Livestock	Household ownership of livestock, challenges to participation in livestock activities, access to livestock inputs, sales, and products
9	Recontact Information	Data on how the household can be recontacted in the future, including phone number, time of day they can be reached in the future
10	Interview Results	Result of interview including observation notes by enumerator regarding the interview, respondent, and language of interview

#### 7.9.4 Description of Datasets

These modules were administered in the Tanzania HFWMPS Round 9 survey.

- Basic Information - Household Roster
- Employment (respondent)
- Economic Sentiments
- Food Prices
- Energy Prices
- Transportation Prices
- Subjective Welfare
- Food Insecurity
- Dietary Diversity
- Agriculture (Crops and Livestock)

**Table 7-24** shows the datasets and their corresponding sections of the Questionnaire.

**Table 7-24: Tanzania HFWMPS Round 9 Datasets**

Dataset Filename	Section(s)	Section Name(s)
r9_sect_a_2_3_4_11_12a_14_15_10	A, 2, 3, 4, 4, 11, 12a, 14, 15, 10	Cover, Basic Information – Household Roster (Q0), Employment, Economic Sentiments, Subjective Welfare, Food Insecurity, Agriculture (Crops), Livestock, Interview Results
r9_sect_1	1	Interview Information
r9_sect_1b		
r9_sect_2	2	Basic Information – Household Roster
r9_sect_5	5	Access to Essential Goods and Services
r9_sect_6	6	Food Prices
r9_sect_7	7	Energy Prices
r9_sect_8	8	Transportation Prices
r9_sect_12b	12b	Dietary Diversity

## Appendix 1: How to Obtain Copies of the Data

The data are available through the NBS web site:

[www.nbs.go.tz](http://www.nbs.go.tz)

or through the World Bank's Microdata Library:

<https://microdata.worldbank.org/index.php/catalog/4542>

Users do not need to obtain the permission of the NBS to receive a copy of the data but will be asked to fill in a data access agreement. In this agreement, users agree to: (a) cite the National Bureau of Statistics as the collector of the data in all reports, publications and presentations; (b) provide copies of all report's publications and presentations to the National Bureau of Statistics (see address below) and the Living Standards Measurement Team of the World Bank (see address below); and (c) not pass the data to any third parties for any reasons.

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