Malawi - Integrated Household Panel Survey, 2010-2019

National Statistical Office (NSO)

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Overview

Identification

ID NUMBER
MWI_2010-2019_IHPS_v01_EN_M_v01_A_OCS

Overview

ABSTRACT
The 2016 Integrated Household Panel Survey (IHPS) was launched in April 2016 as part of the Malawi Fourth Integrated Household Survey fieldwork operation. The IHPS 2016 targeted 1,989 households that were interviewed in the IHPS 2013 and that could be traced back to half of the 204 enumeration areas that were originally sampled as part of the Third Integrated Household Survey (IHS3) 2010/11. The 2019 IHPS was launched in April 2019 as part of the Malawi Fifth Integrated Household Survey fieldwork operations targeting the 2,508 households that were interviewed in 2016. The panel sample expanded each wave through the tracking of split-off individuals and the new households that they formed. Available as part of this project is the IHPS 2019 data, the IHPS 2016 data as well as the rereleased IHPS 2010 & 2013 data including only the subsample of 102 EAs with updated panel weights. Additionally, the IHPS 2016 was the first survey that received complementary financial and technical support from the Living Standards Measurement Study - Plus (LSMS+) initiative, which has been established with grants from the Umbrella Facility for Gender Equality Trust Fund, the World Bank Trust Fund for Statistical Capacity Building, and the International Fund for Agricultural Development, and is implemented by the World Bank Living Standards Measurement Study (LSMS) team, in collaboration with the World Bank Gender Group and partner national statistical offices. The LSMS+ aims to improve the availability and quality of individual-disaggregated household survey data, and is, at start, a direct response to the World Bank IDA18 commitment to support 6 IDA countries in collecting intra-household, sex-disaggregated household survey data on 1) ownership of and rights to selected physical and financial assets, 2) work and employment, and 3) entrepreneurship - following international best practices in questionnaire design and minimizing the use of proxy respondents while collecting personal information. This dataset is included here.

KIND OF DATA
Sample survey data [ssd]

UNITS OF ANALYSIS
Households

Scope

NOTES
The scope of the study covered household, agriculture, livestock, fishery and community.

TOPICS

Topic	Vocabulary	URI
Agriculture & Rural Development	FAO	
Food (production, crisis)	FAO	
Access to Finance	FAO	
Nutrition/Social protection	FAO	
Health	FAO	
Nutrition	FAO	
Infrastructure	FAO	
Labor	FAO	

Livestock	FAO	
Aid effectiveness	FAO	

Coverage

GEOGRAPHIC COVERAGE
National coverage

UNIVERSE
The IHPS 2016 and 2019 attempted to track all IHPS 2013 households stemming from 102 of the original 204 baseline panel enumeration areas as well as individuals that moved away from the 2013 dwellings between 2013 and 2016 as long as they were neither servants nor guests at the time of the IHPS 2013; were projected to be at least 12 years of age and were known to be residing in mainland Malawi but excluding those in Likoma Island and in institutions, including prisons, police compounds, and army barracks.

Producers and Sponsors

PRIMARY INVESTIGATOR(S)

Name	Affiliation
National Statistical Office (NSO)	Ministry of Economic Planning and Development (MoEPD)

OTHER PRODUCER(S)

Name	Affiliation	Role
The World Bank		Technical assistance

FUNDING

Name	Abbreviation	Role
Government of Malawi	Govt MWI	Financial support
World Bank Living Standards Measurement Study – Integrated Surveys on Agriculture project	WB LSMS-ISA project	Financial support

Metadata Production

METADATA PRODUCED BY

Name	Abbreviation	Affiliation	Role
Office of Chief Statistician	OCS	Food and Agriculture Organization	Adoption of metadata for FAM
Development Economics Data Group	DECDG	The World Bank	Documentation of the DDI

DDI DOCUMENT VERSION
MWI_2010-2019_IHPS_v01_EN_M_v01_A_OCS_v01

DDI DOCUMENT ID
DDI_MWI_2010-2019_IHPS_v01_EN_M_v01_A_OCS_FAO

Sampling

Sampling Procedure

SAMPLING PROCEDURE:

A sub-sample of IHS3 2010 sample enumeration areas (EAs) (i.e. 204 EAs out of 768 EAs) was selected prior to the start of the IHS3 field work with the intention to (i) to track and resurvey these households in 2013 in accordance with the IHS3 fieldwork timeline and as part of the Integrated Household Panel Survey (IHPS 2013) and (ii) visit a total of 3,246 households in these EAs twice to reduce recall associated with different aspects of agricultural data collection. At baseline, the IHPS sample was selected to be representative at the national, regional, urban/rural levels and for each of the following 6 strata: (i) Northern Region - Rural, (ii) Northern Region - Urban, (iii) Central Region - Rural, (iv) Central Region - Urban, (v) Southern Region - Rural, and (vi) Southern Region - Urban. The IHPS 2013 main fieldwork took place during the period of April-October 2013, with residual tracking operations in November-December 2013.

Given budget and resource constraints, for the IHPS 2016 the number of sample EAs in the panel was reduced to 102 out of the 204 EAs. As a result, the domains of analysis are limited to the national, urban and rural areas. Although the results of the IHPS 2016 cannot be tabulated by region, the stratification of the IHPS by region, urban and rural strata was maintained. The IHPS 2019 tracked all individuals 12 years or older from the 2016 households.

Response Rate

2,508 households from IHPS 2016 were the tracking targets for IHPS 2019 with 12,250 total individuals and 8,995 eligible individuals. By the end of the 2019 tracking operation the panel sample grew to 3,178 households with 14,649 individuals. This represents an entire household shift, or a single person from a household splitting off and forming a new one. These 3,178 households stemmed from 2,368 of the 2016 households representing a household-level attrition rate of 5.6 percent.

At the individual level, the calculation of the attrition rate is as follows. Baseline households contained 12,250 individuals in 2016, of whom 153 died between 2016 and 2019. Out of the remaining 12,097 individuals and irrespective of the tracking rules that were in place, the IHPS 2016 accounted for 10,516 baseline individuals, representing an overall attrition rate of 13 percent at the individual level. If one focuses only the individuals that were tracking-eligible in accordance with the aforementioned tracking rules and that were alive in 2016, the IHPS accounted for 7,737 individuals out of 8,859 tracking-eligible individuals, representing an attrition rate of 13 percent at the individual level.

Weighting

The longitudinal panel analysis involves using the data for all the sample panel households that had completed interviews in all four rounds of the Panel Survey (2010 baseline, 2013, 2016 and 2019). Therefore the weights were calculated for this set of matched sample households (both original panel and split) for all four rounds. The calculation of the weights is described in detail in the Basic Information Document. A reference document that describes a similar panel weighting methodology used for the Tanzania Panel Survey is "Weight Calculations for Panel Surveys with Sub-Sampling and Split-off Tracking" (World Bank Policy Working Paper 6373, Kristen Himelein, February 2013).

Questionnaires

Overview

HOUSEHOLD
- Household and Geographic Area Identification and Survey Information (data of interview, enumerator's and supervisors codes, etc.)
- Household Roster
- Education
- Health
- Time Use and Labor
- Housing
- Food Consumption (over past one week)
- Food Security
- Non-food Expenditures - over past one week and one month
- Non-food Expenditures - over past three months
- Non-food Expenditures - over past 12 months
- Durable Goods
- Farm Implements, Machinery, and Structures
- Household Enterprises
- Children Living Elsewhere
- Other Income
- Gifts Given Out
- Social Safety Nets
- Credit
- Subjective Assessment of Well-being
- Shocks and Coping Strategies
- Child Anthropometry
- Deaths in Household

AGRICULTURE
- Garden Roster (both for rainy season and dry (dimba) season)
- Plot Roster (both for rainy season and dry (dimba) season)
- Garden Details (both for rainy season and dry (dimba) season)
- Plot Details (both for rainy season and dry (dimba) season)
- Coupon Use (rainy season)
- Other Inputs (both for rainy season and dry (dimba) season)
- Crops (both for rainy season and dry (dimba) season)
- Seeds (both for rainy season and dry (dimba) season)
- Sales/ Storage (both for rainy season and dry (dimba) season)
- Tree/ Permanent Crop Production (last 12 months)
- Tree/ Permanent Crop Sales/ Storage (last 12 months)
- Livestock
- Livestock Products
- Access to Extension Services
- Network Roster

FISHERY
- Fisheries Calendar
- Fisheries Labor (last high season and last low season)
- Fisheries Inputs (last high season and last low season)
- Fisheries Output (last high season and last low season)
- Fish Trading (last high season and last low season)

COMMUNITY
- Roster of Informants
- Basic Information
- Economic Activities
- Agriculture
- Changes

- Community Needs, Actions and Achievements
- Communal Resource Management
- Communal Organization

Data Collection

Data Collection Dates

Start	End	Cycle
2010	2019	N/A

Data Collection Mode

Computer Assisted Personal Interview [capi]

Data Collection Notes

i. Training of Field Staff
Field staff for the IHPS 2019 and the IHS5 was selected after advertisements were placed in the national newspapers advertising posts for enumerators. Interviews were conducted to determine the most qualified candidates. Training instruction was given to the field staff by the IHS5 Management Team with help from World Bank LSMS-ISA team members. The training consisted of classroom instruction on the contents of the questionnaire, concepts and definitions, interview techniques and methods, and field practices in performing actual interviews to ensure that Enumerators fully understood the questionnaire. Training instructions are detailed in the Enumerator and Field Supervisor's Manuals. At the end of the training session, trainees were assessed based on tests given during the training process and evaluations by the supervisory personnel. 72 candidates were selected to be Field Enumerators and 18 members of NSO staff were chosen to be supervisors.

ii. Field Work Implementation
The IHPS 2019 fieldwork began in April 2019 at the same time as the full IHS5 cross-section. Each of the 18 field-based mobile teams consisting of 1 supervisor, 4 enumerators and 1 driver were assigned to cover specific districts and received cross-sectional and panel assignments associated with these districts. Prior to leaving headquarters for fieldwork, team leaders and NSO management sorted carefully through all tracking forms for panel households to be sure that split-off households from 2016 were assigned to the correct team.

iii. Field Supervisors
The IHPS 2019 field based supervisors were responsible for managing the daily operations of their respective field based mobile team. Each team supervisor received enumeration assignment schedules throughout the fieldwork. Enumeration assignments were further accompanied by (1) enumeration area maps, (2) completed listing forms, (3) the list of selected as well as replacement households to be interviewed in each EA (4) the Survey Solutions assignments for the selected EA from headquarters.

Primary responsibilities included: (1) liaising with IHPS 2019 management on schedules, field operation status, equipment status and needs, and special issues, (2) planning daily field operation schedules including coverage and transportation, (3) liaising with local authorities before commencing interview activities, (3) making Survey Solutions questionnaire assignments on CAPI and syncing completed interviews with their Supervisor account (4) reviewing incoming questionnaires for completion and accuracy, (5) syncing reviewed questionnaires with the Headquarters account, (6) reviewing error reports from Headquarters generated through Stata checking system and assigning questionnaire reviews, and authorizing review/call back based on these reports, (7) administering community questionnaires within each enumeration area.

iv. Enumerators
Field based mobile teams consisted of 4 enumerators to field household interviews over the course of the scheduled fieldwork. An enumerator's major areas of responsibility were to accurately and completely administer the Household, Agriculture, and Fishery questionnaires. The enumerators were responsible for: (1) locating assigned households, (2) relaying the source and purpose of the survey and obtaining respondent permission to implement the interview, (3) implementing all pertinent questionnaire modules, (4) systematically obtaining anthropometric measures for qualified household members, (5) using GPS technology to mark and record household locations and take agricultural field measurements, and (6) participating in the review and correction of questionnaires.

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Data Processing

Data Editing

a. Data Entry Platform

To ensure data quality and timely availability of data, the IHPS 2019 was implemented using the World Bank's Survey Solutions CAPI software. To carry out IHPS 2019, 1 laptop computer and a wireless internet router were assigned to each team supervisor, and each enumerator had an 8–inch GPS-enabled Lenovo tablet computer that the NSO provided. The use of Survey Solutions allowed for the real-time availability of data as the completed data was completed, approved by the Supervisor and synced to the Headquarters server as frequently as possible. While administering the first module of the questionnaire the enumerator(s) also used their tablets to record the GPS coordinates of the dwelling units. Geo-referenced household locations from that tablet complemented the GPS measurements taken by the Garmin eTrex 30 handheld devices and these were linked with publically available geospatial databases to enable the inclusion of a number of geospatial variables - extensive measures of distance (i.e. distance to the nearest market), climatology, soil and terrain, and other environmental factors - in the analysis.

b. Data Management

The IHPS 2019 Survey Solutions CAPI based data entry application was designed to stream-line the data collection process from the field. IHPS 2019 Interviews were mainly collected in "sample" mode (assignments generated from headquarters) and a few in "census" mode (new interviews created by interviewers from a template) for the NSO to have more control over the sample. This hybrid approach was necessary to aid the tracking operations whereby an enumerator could quickly create a tracking assignment considering that they were mostly working in areas with poor network connection and hence could not quickly receive tracking cases from Headquarters. The range and consistency checks built into the application was informed by the LSMS-ISA experience with the IHS3 2010/11, IHPS 2013 and IHPS 2016. Prior programming of the data entry application allowed for a wide variety of range and consistency checks to be conducted and reported and potential issues investigated and corrected before closing the assigned enumeration area. Headquarters (the NSO management) assigned work to the supervisors based on their regions of coverage. The supervisors then made assignments to the enumerators linked to their supervisor account. The work assignments and syncing of completed interviews took place through a Wi-Fi connection to the IHPS 2019 server. Because the data was available in real time it was monitored closely throughout the entire data collection period and upon receipt of the data at headquarters, data was exported to Stata for other consistency checks, data cleaning, and analysis.

c. Data Cleaning

The data cleaning process was done in several stages over the course of fieldwork and through preliminary analysis. The first stage of data cleaning was conducted in the field by the field-based field teams utilizing error messages generated by the Survey Solutions application when a response did not fit the rules for a particular question. For questions that flagged an error, the enumerators were expected to record a comment within the questionnaire to explain to their supervisor the reason for the error and confirming that they double checked the response with the respondent. The supervisors were expected to sync the enumerator tablets as frequently as possible to avoid having many questionnaires on the tablet, and to enable daily checks of questionnaires. Some supervisors preferred to review completed interviews on the tablets so they would review prior to syncing but still record the notes in the supervisor account and reject questionnaires accordingly. The second stage of data cleaning was also done in the field, and this resulted from the additional error reports generated in Stata, which were in turn sent to the field teams via email or DropBox. The field supervisors collected reports for their assignments and in coordination with the enumerators reviewed, investigated, and collected errors. Due to the quick turn-around in error reporting, it was possible to conduct call-backs while the team was still operating in the EA when required. Corrections to the data were entered in the rejected questionnaires and sent back to headquarters.

The data cleaning process was done in several stages over the course of the fieldwork and through preliminary analyses. The first stage was during the interview itself. Because CAPI software was used, as enumerators asked the questions and recorded information, error messages were provided immediately when the information recorded did not match previously defined rules for that variable. For example, if the education level for a 12 year old respondent was given as post graduate. The second stage occurred during the review of the questionnaire by the Field Supervisor. The Survey Solutions software allows errors to remain in the data if the enumerator does not make a correction. The enumerator can write a comment to explain why the data appears to be incorrect. For example, if the previously mentioned 12 year old was, in fact, a genius who had completed graduate studies. The next stage occurred when the data were transferred to headquarters where the NSO staff would again review the data for errors and verify the comments from the enumerators and supervisors regarding anomalies that remain. Additional cleaning was performed after interviews were "Approved" where appropriate to resolve systematic errors and organize data modules for consistency and efficient use. Case by case cleaning was also performed during the preliminary analysis specifically pertaining to out of range and outlier variables. All cleaning activities were conducted led by the NSO, and the World Bank LSMS-ISA team provided technical assistance.

Data Appraisal

No content available