Malawi - Fifth Integrated Household Survey, 2019-2020

National Statistical Office (NSO)

Report generated on: February 2, 2021

Visit our data catalog at: https://microdata.fao.org/index.php

Overview

Identification

ID NUMBER
MWI_2019_IHS-W5_v01_EN_M_v01_A_OCS

Overview

ABSTRACT
The Integrated Household Survey is one of the primary instruments implemented by the Government of Malawi through the National Statistical Office (NSO) roughly every 3-5 years to monitor and evaluate the changing conditions of Malawian households. The IHS data have, among other insights, provided benchmark poverty and vulnerability indicators to foster evidence-based policy formulation and monitor the progress of meeting the Millennium Development Goals (MDGs), the goals listed as part of the Malawi Growth and Development Strategy (MGDS) and now the Sustainable Development Goals (SDGs).

KIND OF DATA
Sample survey data [ssd]

UNITS OF ANALYSIS
Households

Scope

NOTES
The 2019-2020 Fifth Integrated Household Survey covered the following topics:

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

TOPICS

Topic	Vocabulary	URI
Agriculture & Rural Development	FAO	
Forests & Forestry	FAO	
Food (production, crisis)	FAO	
Land (policy, resource management)	FAO	
Nutrition/Social protection	FAO	
Health	FAO	
Nutrition	FAO	
Infrastructure	FAO	
Labor	FAO	
Impact evaluation	FAO	
Livestock	FAO	
Social Development	FAO	
Community Driven Development	FAO	

Coverage

GEOGRAPHIC COVERAGE
National coverage

UNIVERSE
Members of the following households are not eligible for inclusion in the survey:

• All people who live outside the selected EAs, whether in urban or rural areas.

• All residents of dwellings other than private dwellings, such as prisons, hospitals and army barracks.

• Members of the Malawian armed forces who reside within a military base. (If such individuals reside in private dwellings off the base, however, they should be included among the households eligible for random selection for the survey.)

• Non-Malawian diplomats, diplomatic staff, and members of their households. (However, note that non-Malawian residents who are not diplomats or diplomatic staff and are resident in private dwellings are eligible for inclusion in the survey. The survey is not restricted to Malawian citizens alone.)

• Non-Malawian tourists and others on vacation in Malawi.

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 Data Group	DECDG	The World Bank	Documentation of the DDI

DDI DOCUMENT VERSION
MWI_2019_IHS-W5_v01_EN_M_v01_A_OCS_v01

DDI DOCUMENT ID
DDI_MWI_2019_IHS-W5_v01_EN_M_v01_A_OCS_FAO

Sampling

Sampling Procedure

SAMPLING PROCEDURE
The IHS5 sampling frame is based on the listing information and cartography from the 2018 Malawi Population and Housing Census (PHC); includes the three major regions of Malawi, namely North, Center and South; and is stratified into rural and urban strata. The urban strata include the four major urban areas: Lilongwe City, Blantyre City, Mzuzu City, and the Municipality of Zomba. All other areas are considered as rural areas, and each of the 27 districts were considered as a separate sub-stratum as part of the main rural stratum. The sampling frame further excludes the population living in institutions, such as hospitals, prisons and military barracks. Hence, the IHS5 strata are composed of 32 districts in Malawi. A stratified two-stage sample design was used for the IHS5.

Note: Detailed sample design information is presented in the "Fifth Integrated Household Survey 2019-2020, Basic Information Document" document.

Response Rate

12, 288 households from 768 Enumeration Areas were selected. Due to COVID-19, 51 Enumeration Areas were unable to be visited at the end of the 12-month fieldwork period. Due to this, the final response rate was 93 percent.

Weighting

In order to analyze the data and produce accurate representativeness of the population, the sample variables must be weighted using the household sampling weights provided in each file. As noted above, the IHS5 data are representative at the national, urban/rural, regional and district-level. The basic weight for each sample household is equal to the inverse of its probability of selection (calculated by multiplying the probabilities at each sampling stage). As indicated in the previous section, the IHS5 sample EAs were selected within each district with PPS from the 2018 PHC frame. At the second stage, 16 sample households were selected with equal probability from the listing for each sample EA.

Note: Detailed weighting information is presented in the "Fifth Integrated Household Survey 2019-2020, Basic Information Document" document.

Questionnaires

Overview

HOUSEHOLD QUESTIONNAIRE
The Household Questionnaire is a multi-topic survey instrument and is near-identical to the content and organization of the IHS3 and IHS4 questionnaires. It encompasses economic activities, demographics, welfare, and other sectoral information of households. It covers a wide range of topics, dealing with the dynamics of poverty (consumption, cash and non-cash income, savings, assets, food security, health and education, vulnerability, and social protection). Although the IHS5 household questionnaire covers a wide variety of topics in detail it intentionally excludes in-depth information on topics covered in other surveys that are part of the NSO's statistical plan (such as maternal and child health issues covered at length in the Malawi Demographic and Health Survey).

AGRICULTURE QUESTIONNAIRE
All IHS5 households that are identified as being involved in agricultural or livestock activities were administered the agriculture questionnaire, which is primarily modelled after the IHS3 counterpart. The modules are expanding on the agricultural content of the IHS4, IHS3, IHS2, AISS, and other regional agricultural surveys, while remaining consistent with the NACAL topical coverage and methodology. The development of the agriculture questionnaire was done with input from the aforementioned stakeholders who provided input on the household questionnaire as well as outside researchers involved in research and policy discussions pertaining to the Malawian agriculture. The agriculture questionnaire allows, among other things, for extensive agricultural productivity analysis through the diligent estimation of land areas, both owned and cultivated, labor and non-labor input use and expenditures, and production figures for main crops, and livestock. Although one of the major foci of the agriculture data collection effort was to produce smallholder production estimates for major crops, it is also possible to disaggregate the data by gender and main geographical regions. The IHS5 cross-sectional households supply information on the last completed rainy season (2017/2018 or 2018/2019) and the last completed dry season (2018 or 2019) depending on the timing of their interview.

FISHERIES QUESTIONNAIRE
The design of the IHS5 fishery questionnaire is identical to the questionnaire designed for IHS3. The IHS3 fisheries questionnaire was informed by the design and piloting of a fishery questionnaire by the World Fish Center (WFC), which was supported by the LSMS-ISA project for the purpose of assembling a fishery questionnaire that could be integrated into multi-topic household-surveys. The WFC piloted the draft instrument in November 2009 in the Lower Shire region, and the NSO team considered the revised draft in designing the IHS5 fishery questionnaire.

COMMUNITY QUESTIONNAIRE
The content of the IHS5 Community Questionnaire follows the content of the IHS3 & IHS4 Community Questionnaires. A "community" is defined as the village or urban location surrounding the enumeration area selected for inclusion in the sample and which most residents recognize as being their community. The IHS5 community questionnaire was administered to each community associated with the cross-sectional EAs interviewed. Identical to the IHS3 and IHS4 approach, to a group of several knowledgeable residents such as the village headman, the headmaster of the local school, the agricultural field assistant, religious leaders, local merchants, health workers and long-term knowledgeable residents. The instrument gathers information on a range of community characteristics, including religious and ethnic background, physical infrastructure, access to public services, economic activities, communal resource management, organization and governance, investment projects, and local retail price information for essential goods and services.

Data Collection

Data Collection Dates

Start
2019-04

End
2020-04

Cycle
N/A

Data Collection Mode

Computer Assisted Personal Interview [capi]

Data Collection Notes

Field staff for 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. The best candidates were selected to be Field Supervisors, and 64 candidates were selected to be Field Enumerators.

Pre-enumeration listings were initiated before the start of each half of field work. Mobile listing teams equipped with printed maps of select EAs were used to record all dwellings and heads of households in selected cross-sectional EAs. Household counts per each listed enumeration areas were relayed to NSO IHS5 Management and recorded. Where applicable, listing forms and maps were transferred directly to field teams after the completion of district listing activities. Field Teams Fieldwork for the IHS5 began in April 2019 and was administered simultaneously throughout the country until April 2020. 18 field-based mobile teams consisting of 1 supervisor, 4 enumerators and 1 driver were assigned to cover specific districts. Each team supervisor received monthly enumeration assignment schedules on a quarterly basis throughout the field work. Monthly 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.

Field based mobile teams consisted of 4 enumerators to field household interviews over the course of the scheduled field work. An Enumerator's major areas of responsibility were to accurately and completely administer the household, agriculture, and fishery questionnaires. 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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stakeholders who provided input on the household questionnaire as well as outside researchers involved in research and policy discussions pertaining to the Malawian agriculture. The agriculture questionnaire allows, among other things, for extensive agricultural productivity analysis through the diligent estimation of land areas, both owned and cultivated, labor and non-labor input use and expenditures, and production figures for main crops, and livestock. Although one of the major foci of the agriculture data collection effort was to produce smallholder production estimates for major crops, it is also possible to disaggregate the data by gender and main geographical regions. The IHS5 cross-sectional households supply information on the last completed rainy season (2017/2018 or 2018/2019) and the last completed dry season (2018 or 2019) depending on the timing of their interview.

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Data Processing

Data Editing

DATA ENTRY PLATFORM
To ensure data quality and timely availability of data, the IHS5 was implemented using the World Bank's Survey Solutions CAPI software. To carry out IHS5, 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. 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. In Survey Solutions, Headquarters can then see the location of the dwellings plotted on a map of Malawi to better enable supervision from afar – checking both the number of interviews performed and the fact that the sample households lie within EA boundaries. 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.

The range and consistency checks built into the application was informed by the LSMS-ISA experience in previous IHS waves. 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 (NSO management) assigned work to supervisors based on their regions of coverage. 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 IHS5 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.

DATA MANAGEMENT
The IHS5 Survey Solutions CAPI based data entry application was designed to stream-line the data collection process from the field. IHS5 Interviews were collected in "sample" mode (assignments generated from headquarters) as opposed to "census" mode (new interviews created by interviewers from a template) for the NSO to have more control over the sample.

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DATA CLEANING
The data cleaning process was done in several stages over the course of field work and through preliminary analysis. The first stage of data cleaning was conducted in the field by the field based field teams utilizing errors generated with the Survey Solutions application. For questions that flagged an error, 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. 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 and sent to teams via email. 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 enumeration area when required. Corrections to the data were entered in the rejected questionnaires and sent back to headquarters.

Data Appraisal

Other forms of Data Appraisal

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 in collaboration with the WB staff providing technical assistance to the NSO in the design and implementation of the IHS5.