

# Tanzania - National Panel Survey 2014-2015

**National Bureau of Statistics**

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## Identification

### SURVEY ID NUMBER

TZA\_2014\_NPS-R4\_v03\_M\_v03\_A\_EXT

### TITLE

National Panel Survey 2014-2015

### SUBTITLE

Wave 4 - Extended Panel

### COUNTRY/ECONOMY

| Name     | Country code |
|----------|--------------|
| Tanzania | TZA          |

### STUDY TYPE

Living Standards Measurement Study

### SERIES INFORMATION

The 2014/2015 Tanzania National Panel Survey (NPS) is part of the fourth round in a series of nationally representative household panel surveys that collect information on a wide range of topics including agricultural production, non-farm income generating activities, consumption expenditures, and a wealth of other socioeconomic characteristics. All four rounds of the NPS have been implemented by the Tanzania National Bureau of Statistics (NBS). The first round of the survey was conducted over twelve months, from October 2008 to September 2009. The main fieldwork of the second round of the NPS started in October 2010 and finished in September 2011, with specialized tracking teams remaining in the field until November 2011. Similarly, the duration and timing of the field work for the third round of NPS was from October 2012 to November 2013. Field work for the fourth round started in October 2014 and lasted until January 2016.

### ABSTRACT

The main objective of the NPS is to provide high-quality household-level data to the Tanzanian government and other stakeholders for monitoring poverty dynamics, tracking the progress of the Five Year Development Plan (FYDP) II poverty reduction strategy and its predecessor plans, and evaluating the impact of other major, national-level government policy initiatives. As an integrated survey covering a number of different socioeconomic factors, it compliments other more narrowly focused survey efforts, such as the Demographic and Health Survey (DHS) on health, the Integrated Labour Force Survey (ILFS) on labour markets, the Household Budget Survey (HBS) on expenditure, and the National Sample Census of Agriculture (NSCA). Secondly, as a panel household survey in which the same households are revisited over time, the NPS allows for the study of poverty and welfare transitions and the determinants of living standard changes.

### KIND OF DATA

Sample survey data [ssd]

### UNIT OF ANALYSIS

Households; Individuals

## Version

### VERSION NOTES

Added new dataset consumptionnps4\_extended\_panel.

## Scope

### NOTES

The 2014-15 NPS covers the following topics:

- HOUSEHOLD: Household identification; Survey staff details; Household member roster; Education, Health, Labour; Food outside the household; Subject welfare; Food security; Housing, water and sanitation; Consumption of food over the past one

week; Non-food expenditures (past one week & one month); Non-food expenditures (past twelve months); Household assets; Family/household non-farm enterprises; Assistance and groups; Credit; Finance; Recent shocks to household welfare; Deaths in the household; Household recontact information; Filter questions; Anthropometry.

- AGRICULTURE: Household roster; Plot roster; Plot details; Crops by plot; Crops - Household totals (production and sales); Permanent crops by plot; Permanent crops - Household totals (production and sales); Input vouchers; Outgrower schemes and contract farming; Processed agricultural products and agricultural by-products; Farm implements and machinery extension; Extension.

- LIVESTOCK AND FISHERY: Household member roster; Livestock stock; Animal health; Feed, water, housing, breeding; Livestock-labour; Milk; Animal power & dung; Other livestock products; Fishery- Household labour; Fishery- Hired labour; Fishing inputs; Fisheries output; Fish trading.

- COMMUNITY: Community identification; Survey staff details; Access to basic services; Investments projects; Land use; Demographics, land & livestock, Market prices; Local units.

## Coverage

### GEOGRAPHIC COVERAGE

National

### UNIVERSE

The universe includes all households and individuals in Tanzania with the exception of those residing in military barracks or other institutions.

## Producers and sponsors

### PRIMARY INVESTIGATORS

| Name                          | Affiliation                      |
|-------------------------------|----------------------------------|
| National Bureau of Statistics | Ministry of Finance and Planning |

### PRODUCERS

| Name  | Affiliation         | Role                 |
|---|---------------------|----------------------|
| World Bank Living Standard Measurement Study Team | Development Partner | Technical assistance |

### FUNDING AGENCY/SPONSOR

| Name                              | Abbreviation | Role    |
|-----------------------------------|--------------|---------|
| European Commission               | EC           | Funding |
| Bill and Melinda Gates Foundation | BMGF         | Funding |

### OTHER IDENTIFICATIONS/ACKNOWLEDGMENTS

| Name                    | Role             |
|-------------------------|------------------|
| NPS Technical Committee | Technical Advice |

## Sampling

### SAMPLING PROCEDURE

The NPS sample was refreshed for NPS 2014/2015. Longitudinal surveys tend to suffer from bias introduced by households leaving the survey over time (i.e. attrition). Although the NPS maintains a highly successful recapture rate (roughly 96% retention at the household level), minimizing the escalation of this selection bias, a refresh of longitudinal cohorts is typically done to ensure proper representativeness of estimates while maintaining a sufficient primary sample to maintain cohesion

within panel analysis. Additionally, the refreshing of a longitudinal sample realigns the sample with any changes in administrative boundaries, demographic shifts, or updated population information. In the case of Tanzania, a newly completed Population and Housing Census (PHC) in 2012 providing updated population figures, along with changed in administrative boundaries, emboldened an opportunity to realign the NPS sample. Similar to the sample in NPS 2008/2009, the sample design for the “Refresh Panel” allows analysis at four primary domains of inference, namely: Dar es Salaam, other urban areas on mainland Tanzania, rural mainland Tanzania, and Zanzibar. The sample design is a stratified two-stage design. The design consists of 51 design strata (identified in the data as ‘strataid’) corresponding to a rural/urban designation for each of the 26 regions; however, Dar es Salaam is pure urban and therefore constitutes only one stratum. The allocation across the design strata was informed by the last round of the NPS and seeks to balance multiple survey objectives and maximize precision given survey parameters. The intended sample design consisted of a new selection of 3,360 households corresponding to 420 EAs from the latest PHC in 2012. This new cohort in NPS 2014/2015 will be maintained and tracked in all future rounds between national censuses. A nationally representative sub-sample was selected to continue as part of an “Extended Panel”. This “Extended Panel” allowed general comparison of sample groups and monitoring indicator comparability.

#### WEIGHTING

In order to produce nationally representative statistics with the NPS data, it is necessary to apply weighting or expansion factors. The panel survey weights adjust for differences in the probability of selection into the NPS 2008/2009 sample for observations in various strata, 2008/2009 households splitting into multiple households in 2010/2011 and splitting even further in 2012/2013, and attrition between rounds of the survey. The first round of the NPS sample was a multi-stage clustered sample design. First stage sampling involved the selection of survey clusters with the probability of selection proportional to cluster size within a stratum. The sampling of these clusters was stratified along two dimensions: (i) eight administrative zones (seven on Mainland Tanzania plus Zanzibar as an eighth zone), and (ii) rural versus urban clusters within each administrative zone. The combination of these two dimensions yields 16 strata. In rural areas a cluster is defined as an entire village. In urban areas a cluster is defined as a census enumeration area. As a general rule, the probability of selection was higher for clusters within strata where existing data sources showed that the variance of key variables of interest for the NPS (e.g., household consumption and maize production) were likely to be very high – implying the need for more observations to produce reliable estimates. The expansion factors for the NPS-EP 2014/2015, variable “y4\_panelweight”, have been integrated into Section A, “HH\_SEC\_A” of the household dataset. Additionally, unique identifiers for the first-stage sampling units, “clusterid”, and for the sampling strata, “strataid” can also be located in Section A of the household dataset. The methodology used to calculate the panel weights for the NPS 2012/2013 was developed as part of the LSMS-ISA work program. Details on the methodology can be found in the paper: Himelein, Kristen. 2013. “Weight Calculations for Panel Surveys with Subsampling and Split-off Tracking.” *Statistics and Public Policy*, vol (1), pp40-45.)

## Data Collection

#### DATES OF DATA COLLECTION

| Start      | End        |
|------------|------------|
| 2013-10-01 | 2016-01-01 |

#### DATA COLLECTION MODE

Other [oth]

## Data Processing

#### DATA EDITING

Additional data cleaning was conducted as the final stage of the data processing. Further adjustment of the data post-entry was conducted under the principle of absolute certainty where adjustments must be evidence-based and correction values true beyond a reasonable doubt. As such, the resulting final data files may still contain some inconsistencies and outliers. Handling of these values is thus left entirely to the data user. Throughout the data processing system, versions of the data are archived at all key steps and all checking and cleaning syntax documented and archived.

## Access policy

#### CONTACTS

| Name                               | Affiliation                   | Email              | URL  |
|------------------------------------|-------------------------------|--------------------|--|
| Director General                   | National Bureau of Statistics | dg@nbs.go.tz       | <a href="#">Link</a>   |
| Living Standards Measurement Study | World Bank                    | lsms@worldbank.org | <a href="http://www.worldbank.org/lms">www.worldbank.org/lms</a> |

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The Primary Data Investigator undertakes that no attempt will be made to identify any individual person, family, business, enterprise or organization. If such a unique disclosure is made inadvertently, no use will be made of the identity of any person or establishment discovered and full details will be reported to the NBS. The identification will not be revealed to any other person not included in the Data Access Agreement.

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6. An electronic copy of all reports and publications based on the requested data will be sent to the National Bureau of Statistics

The original collector of the data, the National Bureau of Statistics, and the relevant funding agencies bear no responsibility for use of the data or for interpretations or inferences based upon such uses.

**CITATION REQUIREMENTS**

Tanzania National Bureau of Statistics (NBS). 2015. National Panel Survey (NPS) - Wave 4 - Extended Panel 2014 - 2015. Ref. TZA\_2014\_NPS-R4\_v03\_M\_v03\_A\_EXT. Downloaded from [URL] on [Date]. Dar es Salaam, Tanzania: NBS. ([www.nbs.go.tz](http://www.nbs.go.tz))

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## Metadata production

**DDI DOCUMENT ID**

DDI\_TZA\_2014\_NPS-R4\_v03\_M\_v03\_A\_EXT\_WB

**PRODUCERS**

| Name                             | Abbreviation | Affiliation    | Role                     |
|----------------------------------|--------------|----------------|--------------------------|
| Development Economics Data Group | DECDG        | The World Bank | Documentation of the DDI |

**DATE OF METADATA PRODUCTION**

2017-07-17

DDI DOCUMENT VERSION

Version 03 (Dec 2022) - added new dataset consumptionnps4\_extended\_panel.

## Data Dictionary

| Data file   | Cases | Variables |
|---|-------|-----------|
| <b>ag_filters</b><br>Agriculture Questionnaire - Filters  | 989   | 6         |
| <b>ag_network</b><br>Agriculture Questionnaire - Network Roster   | 1910  | 6         |
| <b>ag_sec_01</b><br>Agriculture Questionnaire - Section 1: Household Roster   | 3726  | 7         |
| <b>ag_sec_2a</b><br>Agriculture Questionnaire - Section 2a: Plot Roster   | 1726  | 15        |
| <b>ag_sec_2b</b><br>Agriculture Questionnaire - Section 2b: Plot Roster - Additional Plots                                  | 990   | 15        |
| <b>ag_sec_3a</b><br>Agriculture Questionnaire - Section 3a: Plot Details - Long Rainy Season                                | 1726  | 171       |
| <b>ag_sec_3b</b><br>Agriculture Questionnaire - Section 3b: Plot Details - Short Rainy Season                               | 1731  | 172       |
| <b>ag_sec_4a</b><br>Agriculture Questionnaire - Section 4a: Crops by Plot - Long Rainy Season                               | 2014  | 39        |
| <b>ag_sec_4b</b><br>Agriculture Questionnaire - Section 4b: Crops by Plot - Short Rainy Season                              | 1177  | 40        |
| <b>ag_sec_5a</b><br>Agriculture Questionnaire - Section 5a: Crop Production and Sales<br>Long Rainy Season                  | 1649  | 52        |
| <b>ag_sec_5b</b><br>Agriculture Questionnaire - Section 5b: Crop Production and Sales<br>Short Rainy Season                 | 1107  | 52        |
| <b>ag_sec_6a</b><br>Agriculture Questionnaire - Section 6a: Permanent Crops by Plot - Fruit Crops                           | 1668  | 19        |
| <b>ag_sec_6b</b><br>Agriculture Questionnaire - Section 6b: Permanent Crops by Plot - Permanent Crops                       | 1446  | 19        |
| <b>ag_sec_7a</b><br>Agriculture Questionnaire - Section 7a:<br>Permanent Crops by Crop - Fruit Crops                        | 1538  | 27        |
| <b>ag_sec_7b</b><br>Agriculture Questionnaire - Section 7b:<br>Permanent Crops by Crop - Permanent Crops                    | 1276  | 27        |
| <b>ag_sec_10</b><br>Agriculture Questionnaire - Section 10:<br>Processed Agricultural Products and Agricultural By-Products | 1431  | 22        |
| <b>ag_sec_11</b><br>Agriculture Questionnaire - Section 11:<br>Farm Implements & Machinery                                  | 9711  | 12        |
| <b>ag_sec_12a</b><br>Agriculture Questionnaire - Section 12a: Extension   | 3481  | 20        |
| <b>ag_sec_12b</b><br>Agriculture Questionnaire - Section 12b: Extension   | 5350  | 6         |
| <b>ag_sec_a</b><br>Agriculture Questionnaire - Section A-1: Household Identification  | 989   | 31        |

|   |       |    |
|---|-------|----|
| <b>com_sec_a1a2</b><br>Community Questionnaire - Section A-1: Community Identification, Section A-2: Survey Staff Details | 42    | 45 |
| <b>com_sec_cb</b><br>Community Questionnaire - Section CB: Access to Basic Services                                       | 1302  | 8  |
| <b>com_sec_cc</b><br>Community Questionnaire - Section CC: Investment Projects  | 588   | 9  |
| <b>com_sec_cd</b><br>Community Questionnaire - Section CD: Land   | 42    | 36 |
| <b>com_sec_ce</b><br>Community Questionnaire - Section CE: Demographics, Land & Livestock                                 | 42    | 40 |
| <b>com_sec_cf</b><br>Community Questionnaire - Section CF: Market Prices  | 2184  | 9  |
| <b>com_sec_cf_id</b><br>Community Questionnaire - Section CF - Location   | 62    | 24 |
| <b>com_sec_cg</b><br>Community Questionnaire - Section CG: Local Units  | 1008  | 11 |
| <b>hh_filters</b><br>Household Questionnaire - Filters  | 989   | 9  |
| <b>hh_sec_b</b><br>Household Questionnaire - Section B: Household Member Roster   | 4742  | 44 |
| <b>hh_sec_c</b><br>Household Questionnaire - Section C: Education   | 4742  | 42 |
| <b>hh_sec_d</b><br>Household Questionnaire - Section D: Health  | 4742  | 62 |
| <b>hh_sec_e</b><br>Household Questionnaire - Section E: Labour  | 4742  | 74 |
| <b>hh_sec_f</b><br>Household Questionnaire - Section F: Food outside the Household  | 4742  | 18 |
| <b>hh_sec_g</b><br>Household Questionnaire - Section G: Subjective Welfare & Crime  | 4742  | 20 |
| <b>hh_sec_h</b><br>Household Questionnaire - Section H: Food Security   | 989   | 59 |
| <b>hh_sec_i</b><br>Household Questionnaire - Section I: Housing, Water & Sanitation                                       | 989   | 41 |
| <b>hh_sec_j1</b><br>Household Questionnaire - Section J: Consumption of Food over Past One Week                           | 59340 | 14 |
| <b>hh_sec_j3</b><br>Household Questionnaire - Section J: Consumption of Food over Past One Week                           | 9890  | 4  |
| <b>hh_sec_j4</b><br>Household Questionnaire - Section J: Consumption of Food over Past One Week                           | 3956  | 5  |
| <b>hh_sec_k</b><br>Household Questionnaire - Section K: Non-Food Expenditure – Past One Week and One Month                | 25714 | 5  |
| <b>hh_sec_l</b><br>Household Questionnaire - Section : L: Non-Food Expenditure – Past Twelve Months                       | 25714 | 6  |
| <b>hh_sec_m</b><br>Household Questionnaire - Section M: Household Assets  | 52417 | 7  |



|   |       |    |
|---|-------|----|
| <b>hh_sec_n</b><br>Household Questionnaire - Section N: Family/Household Non-Farm Enterprises         | 1119  | 40 |
| <b>hh_sec_o1</b><br>Household Questionnaire - Section O: Assistance and Groups                        | 5934  | 13 |
| <b>hh_sec_o2</b><br>Household Questionnaire - Section O: Assistance and Groups                        | 993   | 17 |
| <b>hh_sec_p</b><br>Household Questionnaire - Section P: Credit  | 1010  | 15 |
| <b>hh_sec_q1</b><br>Household Questionnaire - Section Q: Finance                                      | 989   | 33 |
| <b>hh_sec_q2</b><br>Household Questionnaire - Section Q: Finance                                      | 1139  | 23 |
| <b>hh_sec_r</b><br>Household Questionnaire - Section R: Recent Shocks to Household Welfare            | 16813 | 8  |
| <b>hh_sec_s</b><br>Household Questionnaire - Section S: Deaths in Household                           | 993   | 20 |
| <b>hh_sec_u2</b><br>Household Questionnaire - Section U-2: Filter Questions                           | 989   | 13 |
| <b>hh_sec_v</b><br>Household Questionnaire - Section V: Anthropometry                                 | 4742  | 12 |
| <b>lf_filters</b><br>Livestock and Fisheries Questionnaire - Filters                                  | 989   | 7  |
| <b>lf_network</b><br>Livestock and Fisheries Questionnaire - Network Roster                           | 1058  | 6  |
| <b>lf_sec_01</b><br>Livestock and Fisheries Questionnaire - Section 1: Household Roster               | 3003  | 7  |
| <b>lf_sec_02</b><br>Livestock and Fisheries Questionnaire - Section 2. Livestock Stock                | 6629  | 43 |
| <b>lf_sec_03</b><br>Livestock and Fisheries Questionnaire - Section 3. Animal Health                  | 2869  | 23 |
| <b>lf_sec_04</b><br>Livestock and Fisheries Questionnaire - Section 4. Feed, Water, Housing, Breeding | 2869  | 28 |
| <b>lf_sec_05</b><br>Livestock and Fisheries Questionnaire - Section 5. Livestock Labour               | 2866  | 25 |
| <b>lf_sec_06</b><br>Livestock and Fisheries Questionnaire - Section 6. Milk                           | 2869  | 20 |
| <b>lf_sec_07</b><br>Livestock and Fisheries Questionnaire - Section 7. Animal Power and Dung          | 2869  | 11 |
| <b>lf_sec_08</b><br>Livestock and Fisheries Questionnaire - Section 8. Other Livestock Products       | 1741  | 15 |
| <b>lf_sec_09</b><br>Livestock and Fisheries Questionnaire - Section 9. Fishery- Household Labour      | 993   | 12 |
| <b>lf_sec_11a</b><br>Livestock and Fisheries Questionnaire - Section 11. Fishing Inputs               | 1574  | 11 |
| <b>lf_sec_11b</b><br>Livestock and Fisheries Questionnaire - Section 11. Fishing Inputs               | 1529  | 6  |

|  |      |    |
|--|------|----|
| <b>lf_sec_12</b><br>Livestock and Fisheries Questionnaire - Section 12. Fisheries Output                                 | 1009 | 42 |
| <b>lf_sec_13a</b><br>Livestock and Fisheries Questionnaire - Section 13. Fish Trading                                    | 1005 | 21 |
| <b>lf_sec_13b</b><br>Livestock and Fisheries Questionnaire - Section 13. Fish Trading                                    | 1124 | 5  |
| <b>lf_sec_a</b><br>Livestock and Fisheries Questionnaire - Section A- 1. Household Identification                        | 989  | 32 |
| <b>hh_sec_a</b><br>Household Questionnaire - Section A-1 : Household Identification<br>Section A-2: Survey Staff Details | 989  | 57 |
| <b>consumptionnps4_extended_panel</b><br>Consumption dataset   | 988  | 48 |