Georgia - Survey of Agricultural Holdings 2022

National Statistics Office of Georgia (Geostat)

Report generated on: August 27, 2024

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

Identification

SURVEY ID NUMBER
GEO_2022_SAH_v01_EN_M_v01_A_ESS

TITLE
Survey of Agricultural Holdings 2022

COUNTRY

Name	Country code
Georgia	GEO

STUDY TYPE
Agricultural Survey [ag/oth]

ABSTRACT
The main purpose of the Survey of Agricultural Holdings is to produce official indicators in line with agricultural sector. The survey allows the compilation of statistics on crops and animal husbandry, of which information annual and permanent crops, sown area, average yield of annual crops and etc. Statistical tables are accessible through the following link: https://www.geostat.ge/en/modules/categories/196/agriculture.

One round of the survey (reference year) includes 5 inquiries: The Inception interview is carried out using the inception questionnaire during the period of January-February of the reference year. During this interview the sampled holdings are identified and situation existing at the holding as of first January is recorded. I, II and III quarter interviews are conducted by means of quarterly questionnaire at the beginning of the following month of the corresponding quarter of the reference year. Based on these surveys, the information about agricultural activities during the corresponding quarter is collected. The final interview is conducted by means of final questionnaire in January of the following year of the reference year. During this interview, the information about agricultural activities at the holding during IV quarter of the reference year and the summary information about agricultural activities at the holding during the whole reference year (from 1 January to 31 December of the previous year) are collected. During all five interviews, the same agricultural holdings (about 12 000) are interviewed which are selected by a two-stage stratified cluster random sampling procedure out of about 642 000 agricultural holdings operated in Georgia. On the first stage, clusters (settlements) are selected. On the second stage, holdings are selected within the selected clusters.

The survey completely covers the territory of Georgia, excluding the occupied territories of Autonomous Republic of Abkhazia and Tskhinvali region. Each year a new sample is selected based on a rotational design (on a 3-year basis). In particular, every year approximately 4000 holdings out of the 12000 sampled holdings are replaced by new holdings. Sampled holdings participate in the survey for 3 years. Large agricultural holdings are sampled every year with complete coverage. The statistical unit of the survey is the agricultural holding (family holdings and agricultural enterprises) – which is defined as an economic unit of agricultural production under single management comprising all livestock kept and all land used wholly or partly for agricultural production purposes, without regard to title, legal form or size. Agricultural activities are conducted under the supervision of a holder (in case of households - a member of household, in case of agricultural enterprises - director or authorized person), who is responsible for making decisions and takes all economic risks and expenses related to agricultural activities.

More than 270 interviewers participated in the survey fieldwork. For the Data collection, computer-assisted personal interviewing method (CAPI) was used in the family holdings. In case of agricultural enterprises, the authorized persons of the enterprises (respondent) fill the electronic (online) questionnaires by themselves (CAWI). Coordination of the interviewers and the primary control of the collected data during the field is carried out by coordinators. Their working area covers several municipalities. The function of the coordinators also includes consultation for agricultural enterprises on methodological and technical issues related to the survey.

KIND OF DATA
Sample survey data [ssd]

UNIT OF ANALYSIS
Agricultural holding – economic unit of agricultural production under single management comprising all livestock kept and all land used wholly or partly for agricultural production purposes, without regard to title, legal form or size in which agricultural activities are conducted under the supervision of a holder, who is responsible for making decisions and takes all economic risks and expenses related to agricultural activities.

Scope

Statistical information on sheep and goats, as well as the production of melons, and watermelons is collected separately based on the special questionnaire. The source of these statistics is the administrative units of the Municipalities of Georgia. Information on tea leaf production is obtained from the legal entities specialized in crude tea leaf processing.

KEYWORDS

Keyword
Temporary crop-a crop with complete growing cycle less than one year. Sown perennial grasses (alfalfa, trefoil, sainfoin, etc.) also belong to this category;
Permanent crop-a crop with complete growing cycle more than one year;
Sown area-area of arable land where temporary crops were sown during a reference year;
Harvested area-the part of the sown area which has been harvested during the reference year (the difference between the sown area and the lost area);
Production of annual and permanent crops-production obtained from arable land, as well as permanent crops during the reference year;
Average yield-crop production per hectare. Calculated as the ratio of the harvest and the harvested area;
Number of livestock-number of heads of livestock of all kinds and age groups as of a definite moment of time;
Livestock productivity-average volume of appropriate products, obtained from one dairy cow and buffalo, one laying chicken, one goat and sheep during a year;
Milk production-total milk obtained from dairy cows, dairy buffaloes, sheep and goats. Milk consumed by sucking calves, kids and lambs is excluded from the total milk production;
Meat production-the total weight of the meat obtained as a result of slaughter of both domestically raised and imported livestock;
Average yield of dairy cows-annual milk production divided by the average number of dairy cows during the year;
Average clip per sheep-annual total wool production during the reference year divided by the number of shaved sheep during the year;
Average litter-number of born animal during the reference year divided by the average number of female animals during the year;

Coverage

GEOGRAPHIC COVERAGE
Entire country (Georgia), excluding occupied regions (Abkhazia and Tskhinvali region)

UNIVERSE
Survey sampling frame includes about 642,000 agriculture holdings (households and agricultural enterprises) operated in country. The Agricultural Census 2014 is the main source of the sample frame. Sampling frame is updated on a permanent basis in according to the results of survey of agricultural holdings, business register and different administrative sources.

Producers and sponsors

PRIMARY INVESTIGATORS

Name
National Statistics Office of Georgia (Geostat)

PRODUCERS

Name	Role
Food and Agriculture Organization of the United Nations	Technical Support

FUNDING AGENCY/SPONSOR

Name	Abbreviation	Role
National Statistics Office of Georgia	Geostat	Funding
50x2030 Initiative (www.50x2030.org)	50x2030	Technical and Financial Assistance

Sampling

SAMPLING PROCEDURE
• Main Source of the sample frame since 2016 - Agricultural Census 2014;
• Sample frame contained 642,000 holding - sample size 12,000 (1.9%);
• Sample Design: two-stage stratified cluster random sampling;
- First stage - selection of cluster (Settlement);
- Second stage - Selection of holdings within the selected clusters;
• Each year a new sample is selected based on a rotational design;
- Every year 1/3 of holdings (4,000) selected a year before are replaced (Sampled holdings participate in the survey during 3 years);
• Extremely large agricultural holdings are sampled every year with complete coverage;
• Additional Sources for updating sample frame: Sample Survey of Agricultural Holdings, Statistical Business Register, Administrative data existing in MEPA (large agricultural holdings); Sampling error of main indicators do not exceed 5% for a country level and 10% for a regional level.

RESPONSE RATE
In the 2022 fourth quarter, 1,349 holdings were not surveyed, due to the fact that some holdings refused to be interviewed or were not found during the fieldwork despite its existence. This is about 10.7% of the total sampled holdings of 12,589 holdings involved in the sample 2022 fourth quarter.

WEIGHTING
The survey of agriculture holdings uses a rotation design basis. Every sampled cluster, excluding clusters of extra-large holdings, belongs to one of three rotation group. This kind of approach implies to keep a holding in the sample for about three years and after this time replace it by another holding from the same stratum. The initially selected holdings will not necessarily stay in the survey for three years. In 2017, holdings of the first rotation group were substituted, in 2018 - holdings of the second rotation group, and in 2019 - holdings of the third rotation group. Extra-large holdings will participate without being substituted. Every year approximately 4000 holdings out of 12000 holdings selected a year before being changed. Newly introduced holdings will belong to the same rotation group which its predecessor belonged to.

At First, initial weights of selected holdings from s-th stratum will be calculated: $W_{s,0}=N_s/n_s$
Where N_s is the number of holdings, and n_s - number of selected holdings in s-th stratum.
In the strata of small, medium and large holdings, all the interviewed holdings of s-th stratum will have the following weight assigned: $W_{s,1}=(N_s-u_s*W_{s,0})*r_s$
Where r_s is the number of responses in s-th stratum, and u_s is the number of selected holdings in the stratum that do not exist.

In extra-large holding strata the difference between holdings with respect to their sizes might be very large and distributing the weights of non-responses on interviewed holdings might give misleading results. Because of this, in order to weight the holdings of this size, post-stratification should be done. At first, the main specialization of all holdings should be determined. That is, the crop type (or type of animals/poultry) which makes up the bulk of holding's ACI should be determined. All the extra-large holdings of the country should be grouped according to their main specializations. The holdings, ACI of which exceeds 300 should be grouped together separately from other holdings. The latter stratum should also include all the other extra-large holdings which have a unique specialization countrywide. The interviewed holdings of this stratum should have final weights set to their initial weights ($W_{s,0}=1$), and the holdings which exist but were not interviewed for some reason, should have their data filled in through some method (imputation, results of previous survey, or data obtained from other sources). All of these cases should be considered individually. In the rest of the extra-large holdings weighting should be carried out as it is done in the case of small, medium and large holdings.

After forming the sample initial weights were calculated. Afterwards, the accuracy of estimates (obtained from selected holdings) for the parameters from the database was calculated.

Data Collection

DATES OF DATA COLLECTION

Start	End	Cycle
2022-01-11	2022-01-31	Inception Survey
2022-04-01	2022-04-12	I Q survey
2022-07-01	2022-07-12	II Q survey
2022-10-01	2022-10-12	III Q survey
2023-01-11	2023-01-22	IV Q (Final) survey

DATA COLLECTION MODE
Computer Assisted Personal Interview [capi]

DATA COLLECTION NOTES
From 2006 to 2017 data for the Survey of Agriculture Holdings were collected using paper-based questionnaires, while since 2018 data are collected using tablet-based computer-assisted personal interviewing (CAPI) methods. In case of agricultural enterprises data are collected via online questionnaires CAWI- Computer Assisted Web-interviewing).

Questionnaires

QUESTIONNAIRES
Detailed information on structure, and sections of questionnaires used in the survey of agricultural holdings are available in following link: https://www.geostat.ge/en/modules/categories/564/questionnaires-Agricultural-Statistics

Data Processing

DATA EDITING
After the field work, cleaning and harmonization of all inquiries are established at the Geostat head office - logical and arithmetical inconsistencies, as well as non-typical and suspicious data are detected, checked and corrected. Verification of the data is performed by contacting the respondents by phone. If verification with respondent is impossible, different imputation methods are used. Finally, indicators are calculated using weighted data. The obtained results are compared with corresponding results of the previous periods. In case of significant differences, the possible causes are identified and analyzed.

Access policy

CONTACTS

Name	Affiliation	Email
Giorgi Sanadze	Head of Agriculture and Environment Department at Geostat	gsanadze@geostat.ge

CONFIDENTIALITY
1. The Law of Georgia on Official Statistics: ---o According to the article 5 of the law individual data collected or received by the producer of official statistics, relating to natural or legal persons, must be strictly confidential and used only for statistical purposes. ---o According to the article 34 (Observing Confidentiality of Statistical Data) of the law. ------1. Data collected, processed, and stored to produce official statistics are confidential if they enable the direct or indirect identification of a statistical unit. In addition, aggregated data are subject to statistical confidentiality: --------a) Aggregates composed of 1 to 3 units, when the unit is a natural or legal person if one of these units could be identified indirectly, thereby disclosing individual data about this unit. Aggregates composed of more than 3 units may be declared confidential

by the Executive Director if required to ensure statistical confidentiality --------b) Information declares as a state secret on the basis of the "Law of Georgia on State Secrets". ------2. Statistical data about the administrative body cannot be considered confidential information, except for the information determined by the Law of Georgia "On State Secrets". ------3. For official statistics, it is obligatory to destroy or store separately the identity data including the questionnaires containing such data and used for statistical surveys according to the rules defined in the Georgian legislation. ------4. Individual data obtained from publicly available sources, which are defined as public information in accordance with the legislation of Georgia, shall not be considered confidential information. ------5. Confidential (individual) data may be published if there is written consent from the statistical unit regarding the publication of such data. ------6. It is not allowed to disseminate and distribute confidential data or use it for non-statistical purposes. ---o According to the article 38 (Confidentiality commitments) of the law the confidential statistical data collected and processed for the purpose of statistical survey shall not be used or disseminated by the employees of the producers of Official Statistics.
https://www.geostat.ge/media/56202/The-Law-of-Georgia-on-Official-Statistics.pdf 2. Data Confidentiality Policy at Geostat 3. Rule on Access to Confidential Data for Scientific and Research Purposes
https://geostat.ge/media/61533/Rule-on-Access-to-Confidential-Data-for-Scientific-and-Research-Purposes....pdf
https://geostat.ge/media/61535/Annex-1_Registration-application_Geostat_En.docx 4. The Law of Georgia on Personal Data Protection https://matsne.gov.ge/en/document/view/1561437?publication=9

ACCESS CONDITIONS
Data Confidentiality Policy at Geostat
https://www.geostat.ge/media/20860/Data-Confidentiality-Policy-at-Geostat_En.pdf

Rule on Access to Confidential Data for Scientific and Research Purposes
https://geostat.ge/media/61533/Rule-on-Access-to-Confidential-Data-for-Scientific-and-Research-Purposes....pdf
https://geostat.ge/media/61535/Annex-1_Registration-application_Geostat_En.docx

Metadata production

DDI DOCUMENT ID
DDI_GEO_2022_SAH_v01_EN_M_v01_A_ESS_FAO

PRODUCERS

Name	Abbreviation	Affiliation	Role
National Statistics of Georgia	GEOSTAT		Metadata producer
Dissemination and Outreach Team, Statistics Division		Food and Agriculture Orgnaization	Metadata adapted for FAM

DDI DOCUMENT VERSION
GEO_2022_SAH_v01_EN_M_v01_A_ESS_v01

Data Dictionary

Data file	Cases	Variables
ag_holdings	6511	15
cost_of_production	47033	8
crop_prod_and_use	45487	18
fertilizers	4254	11
greenhouse_crops	138	9
hay_prod_and_use	1277	14
income	252	8
livestock	96283	19
livestock_primary_prod	43470	18
manure	1160	12
parcels	15228	22
permanent_crops	7265	12
pesticides	5641	12
scattered_trees	26444	10
secondary_prod_for_animal_feed	4085	15
temporary_crops	22996	13
warehouse_access	45493	11
workers	70284	14