

Georgia - Survey of Agricultural Holdings - Production Methods and Environment Module, 2021

National Statistics Office of Georgia (Geostat)

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Identification

SURVEY ID NUMBER

GEO_2021_SAH-PME_v01_EN_M_v01_A_ESS

TITLE

Survey of Agricultural Holdings - Production Methods and Environment Module, 2021

COUNTRY

Name	Country code
Georgia	GEO

STUDY TYPE

Agricultural Survey [ag/oth]

SERIES INFORMATION

Production Methods and the Environment Module is part of main Survey of Agricultural Holdings.

ABSTRACT

The sample design of the Production Methods and the Environment module survey is based on the sample of the current Survey of Agricultural Holdings, so firstly given the design of the current Survey. The main purpose of the Survey of Agricultural Holdings as well as Production Methods and the Environment module 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, farming practices and their linkages with the natural environment, crop and livestock production methods, access to and use of information services, infrastructure and communal resources and etc. Statistical tables are accessible through the following link: <https://www.geostat.ge/en/modules/categories/196/agriculture>.

Production Methods and the Environment Module is part of main Survey of Agricultural Holdings. One round of the main 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 summery 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 12000) 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 participate in the survey fieldwork. For the Data collection, computer-assisted personal interviewing method (CAPI) is 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. Production Methods and Environment module field work was carried out from May 5th to May 20th of 2022. 200 field staff participated in the survey, 22 of which were field supervisors. In total 5,880 agricultural holdings were selected for the PME survey. Such are the extra-large farms that are continuously participating in the survey and the third rotation farms that have been participating in the survey since 2019. Currently 943 extra-large farms and 3,899 third rotation farms are participating in the survey. Therefore, we have a total of 4,842 farm data for the last three years. The rest of the holdings will be selected from the first rotation clusters

where interviews have been conducted for two years. In particular, using simple random sampling approximately 30% of the working clusters of the first rotation are selected in each stratum. This will give us about 1,038 farms. A total of about 5,880 farms will be selected.

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

KEYWORDS

Keyword
Temporary crop
Permanent crop
Sown area
Harvested area
Production of annual and permanent crops
Average yield
Number of livestock
Livestock productivity
Milk production
Meat production
Average yield of daily cows
Average clip per sheep
Average litter

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	
50x2030 Initiative (www.50x2030.org)	50x2030	Technical and Financial Assistance

Sampling

SAMPLING PROCEDURE

The sample design of the Production Methods and the Environment module survey is based on the sample of the current Survey of Agricultural Holdings, so firstly given the design of the current Survey. • 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; The sample design of the Production Methods and the Environment module survey: • Sample Design: Two-stage cluster sampling was used for the survey. -Sample is formed separately in each stratum. At first, clusters are selected in every stratum, and then holdings from selected clusters are selected for survey. -Extra-large holdings will be in the sample by probability 1. That is, all clusters of extra-large holdings and all extra-large holdings from these clusters fall into sample. - Primary sampling unit in the rest of the strata is the cluster. The same number of holdings will be interviewed in all the selected clusters of a stratum. Specifically, in small holding strata, 12 holdings will be interviewed in each selected cluster. This number is 8 for medium-sized strata and 4 for large strata. -In each stratum the number of clusters that have to be selected is calculated by dividing the number of holdings to be selected in the stratum by the number of holdings to be interviewed in each cluster of the stratum. -In each stratum selection of clusters is done by the PPS method (Probability Proportionally to Size). -The selection of holdings in each selected cluster is made using a random systematic sample. • Rotational design: Survey has a panel design. Holdings, which will get into the sample, will stay there for three years. After this, they will be substituted by holdings from the same stratum. -The database lists 943 extra-large holdings. All of them will constantly participate in the survey. Their rotation group number will be "0". Of the remaining holdings each of them will belong to one of the three rotation groups. Holdings selected from the same cluster will fall in the same rotation group. Each rotation group will have more or less the same number of holdings. Each rotation group represents an independent random sample. -When holdings change by rotation, holding from the sample will be substituted by the new one from the same cluster. If the cluster does not have enough holdings to make the full rotation, then the cluster is deemed exhausted and is substituted by a randomly selected cluster from the same stratum. -Newly introduced holdings will belong to the same rotation group which its predecessor belonged to

RESPONSE RATE

In the PME survey 237 holdings were not responded to due to refusing to be interviewed or would not be found during the fieldwork despite its existence. It is about 4.0% of the total Sampled holdings 5,880 holdings involved in the sample.

WEIGHTING

Weighting is performed on stratum level. All the interviewed holdings of the stratum have the same weight.

- 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 is the 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.

Data Collection

DATES OF DATA COLLECTION

Start	End
2022-05-05	2022-05-20

DATA COLLECTION MODE

Computer Assisted Personal Interview [capi]

DATA COLLECTION NOTES

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 available in following link: <https://www.geostat.ge/en/modules/categories/686/agriculture-holdings-surveys>.

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

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CONFIDENTIALITY

1. The Law of Georgia on Official Statistics: ---o According to the article 4 of the law individual data collected by statistical agencies for statistical compilation, whether they refer to natural or legal persons, are to be strictly confidential and used exclusively for statistical purposes. ---o According to the article 28 (Observing Confidentiality of Statistical Data) of the law. --
 ----1. The data collected for the purpose of producing official statistics shall be confidential if it allows for identification of observation unit or r it is possible to identify such data through it. -----2. The confidential statistical data shall not be issued or disseminated or used for a non-statistical purpose but for the exceptions envisaged by the Georgian legislation. -----3. When 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. ---o According to the article 29 (The Obligations and Responsibilities of the Employees of the Geostat) 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 units of the Geostat. <https://www.geostat.ge/media/56202/The-Law-of-Georgia-on-Official-Statistics.pdf> 2. Data Confidentiality Policy at Geostat 3. Public Use Microdata Dissemination Policy at Geostat 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

Public Use Microdata Dissemination Policy at Geostat

https://www.geostat.ge/media/20862/Microdata-Dissemination-Policy_Eng.pdf

Metadata production

DDI DOCUMENT ID

DDI_GEO_2021_SAH-PME_v01_EN_M_v01_A_ESS_FAO

PRODUCERS

Name	Abbreviation	Role
National Statistics of Georgia	GEOSTAT	Metadata producer
Oluwakayode Anidi		Metadata adapted for FAM

DDI DOCUMENT VERSION

GEO_2021_SAH-PME_v01_EN_M_v01_A_ESS_v01

Data Dictionary

Data file	Cases	Variables
PME_3_1_2	4531	16
PME_4_4_2	82	7
PME_4_4_5	392	7
PME_4_4_8	1870	7
PME_4_4_11	340	7
PME_4_5_1	9072	19
PME_5_1_1	7160	7
PME_6_4	10274	11
PME_main_table	5655	558