
ALBANIA - General Census of Agricultural Holdings 2012 – Explanatory notes

1. Historical Outline

The 2012 General Census of Agricultural Holdings was the second census. The first complete enumeration census conducted was the 1998 General Census of Agricultural Holdings. The Census was a cooperative effort of the Institute of Statistics (INSTAT), the Ministry of Agriculture and Food and Ministry of Local Authorities, with support from the European Union and Sweden.

2. Legal Basis and Organization

Law No. 10 201, date 17 December 2009 for general registration of agricultural census; Decision No. 181, date 17 March 2010 on the organization and functioning and composition of central registration of the agricultural census.

3. Reference Period or Date

Reference period: 1 October 2011- 30 September 2012

Reference date for livestock number - 1 October 2012

4. Enumeration Period

1-30 October 2012

5. Definition of the Statistical Unit

The statistical unit is the agricultural holding. An agricultural holding is defined by the following criteria:

- (1) Single unit both technically and economically, this refers to the use of the same means of production and breeding livestock,
- (2) Single management: the management system of the farm is decided unitary by the same person or group of persons; this means that there is a person or group of persons who is responsible of taking decisions on the farming activities of the holding,
- (3) Unit is engaged in "own account" agricultural activities, either as its primary or secondary activity.

6. Geographic Coverage

Covered the entire country.

7. Exclusions and Cut-Off Thresholds

No exclusions and Cut-Off Thresholds used

8. Methodology

Use of the FAO Modular Approach

- World Programme for the Census of Agriculture 2010;;
- Guidelines for Linking Population and Housing Censuses with Agricultural Censuses;
- EU Regulation 1166/2008 on " Farm Structure Survey "

Frame

All agricultural holdings in the country.

Complete or Sample Enumeration Methods

Enumeration of all agricultural households, not a sample.

Sample Design

Not applicable.

Collection Method

Data collection method - face to face interview.

Questionnaire(s)

All of the FAO recommended core agriculture data appear to be included particularly information on structural characteristics and for example farm size, land use, crops grown, number and type of livestock, irrigation, farm inputs and farm labour.

Controls to Minimize Non-Sampling Errors

During field work process has been done some logical controls of questionnaires by field operators; controllers and supervisors. Also some control rules are visible in different section of questionnaire. Also a verification process has been done after data entry.

Innovative Methodologies

No Information available.

9. Data Entry, Edits and Imputations, Estimation and Tabulation

INSTAT used scanning process. READSOFT has been used as a scanning software. Form, set, batch and job definitions has been created for the scanning, interpretation and verification process. The scanning system was adapted to the questionnaire. Ranges were put on different variables such as day, month, etc. Also lists have been linked to different fields (district, commune, etc). The output of the scanning process was a text files which than was imported to SAS for further processing.

The E&I process of the CAH data consists of the phases described in the following.

- I. Selective and interactive editing
The programs implement a selective editing algorithm for the identification of the influential errors in the surfaces data and in the variables on livestock, separately by Census district. Errors are identified based on the main balance and equality edits to be satisfied by the variables on surfaces and livestock
- II. Deterministic pre-processing of all the census data. The program performs the following tasks:
 1. replacement of missing values with zero values for all the questionnaire variables;
 2. filling zero values for main totals of sections of surface when the sum of their respective components agrees with corresponding reference totals;
 3. deterministic treatment of some systematic errors on surfaces
 4. deterministic treatment of balance edits for livestock: when only the totals are filled in, deterministic imputation of components in order to satisfy the balance edit.
- III. Pre-processing of data using donor. From this phase data are processed separately by district
The program performs the correction of some residual errors from the selective/editing/interactive editing phase. The output of this program is the common input of the other procedures (Banff, livestock and labor force).
 - **Banff_sup_prin.sas**
The program performs the probabilistic error and imputation process on surface data (sections B and C of the questionnaire) based on the Banff procedures. Specific parameters for the CAH have been defined in the program. In particular, input parameters include:
 - *Edit_sup_prin.sas*: list of edit rules on surfaces to be satisfied by units
 - *Pedits_sup_prin.sas*: list of post-edits corresponding to the defined list of edits.The not resolved units in this step need to be interactively revised in a final editing and correction phase.
 - **Banff_sup_second.sas**
The program performs the probabilistic error and imputation process on the surface data reported in all other sections the questionnaire, like irrigation. The processing is again based on the use of Banff procedures. Specific parameters for the CAH have been defined in the program. In particular, input parameters includes:
 - *edit_sup_second_rid2.sas*: list of edit rules on other surfaces to be satisfied by units
 - *pedit_sup_second.sas*: list of post-edits corresponding to the defined list of edits.The not resolved units in this step need to be interactively revised in a final editing and correction phase, together with the not resolved units resulting from the program **Banff_sup_prin.sas**.
 - **Determ_liv.sas**
The program performs deterministic corrections on the livestock variables (questionnaire section D) in case of balance errors: if the total of animals (by type of animal) is different from the sum of the corresponding components, components are adjusted proportionally to the observed values in order to restore the balance.
 - **Editing_lab_force.sas**
The program performs corrections on the Labor force variables. It imputes the number of average working hours and the numbers of days by using donors.

CAH TABULATION PLAN

We have prepared 33 tables at national level. In prefecture and district level there were chosen 26 tables. In commune level are prepared 19 tables for each commune, which are modified versions of the tables at national level. The scripts for the tables are prepared in SAS. To create the tables at

prefecture and district level are used the same scripts as in national level. To make the dissemination as easy as possible, especially for the commune level, we have used pre-prepared excel templates which are filled directly from SAS output tables. To achieve this we have created an excel macro, "APP_AgriCensus". We link the template table which the data source only for one prefecture/district/commune and the macro fills automatically the templates for all the others.

To check the consistency of the tables we have created an excel macro, "Consolidate all Prefecture", which summarizes automatically the tables for all the communes/districts/prefectures making it much easier to compare with the values at national tables.

There are a variety of methods to choose from statistical disclosure control (SDC) that can be used to produce privacy-protected tables like: table redesign methods that modify the design of the table by defining the level of detail, post-tabular methods that modify values in an already derived table.

The protection of an already made table - by applying primary and secondary suppression methods on table values - is managed within the second category, post-tabular methods. Software for SDC (π -Argus/SAS2Argus) has been installed and adjusted to INSTAT. It has been applied on a few sample tables for the evaluation of the effect. It turned out obviously that we can't apply this protection technique on the Agricultural Census because of the great information loss. Another shortcoming is lack of a license for an optimizer (XPress LP-Solver) by which we could be able to use more efficient techniques for minimizing the secondary suppressing. We use Hypercube-method which suppresses more cells than an optimal method would do.

A simpler program to achieve SDC has been developed by foreign experts (App_Protect). The application has two simple methods for statistical disclosure control. First you can "reveal" low frequency count by adding background color to cells. The unsecured cells can be handled by random rounding technique or by selecting manually additional cells for secondary suppression.

10. Data Dissemination and Use

The General Census of Agriculture is part of Albania's integrated system of the Agriculture Statistics. The Agriculture Census provides general information on the farms (agricultural units) and their activities throughout the Republic of Albania. The Agriculture Census also provides the statistical information necessary for the planning and implementation of the general economic development policies for agricultural and is the basis for the creation of the Crop Register, Vineyard Register, and Livestock Register used for surveys conducted in the intercensal period.

11. Census Data Quality

The PES (Post enumeration Survey) has been conducted in December 2012 (one month after finish of field work agricultural census). PES has been conducted to evaluate the quality of the Census of Agriculture of Holdings through the measure of the response and coverage errors.

The survey is based on an aerial sample and the enumerator, utilizing the cartography of the enumeration areas, has to identify the agricultural units. For each enumeration area, the data collection consists of two steps;

- Step1 the identification of the agricultural units. The interviewer individuates all units involved in agricultural activities within the assigned enumeration areas; this requires a door-to-door contact with all households and building found in each sampled EA;
- Step 2: the interview to the agricultural unit by the PES questionnaire. The enumerator interviews the holder found out in step 1 in order to collect the information requested.

One of the basic information for checking the quality of Census data is recommended to identify the same respondent at Agricultural Census,.

12. Data Source

<http://www.instat.gov.al/en/themes/agriculture.-forestry-and-fishery.aspx?tab=tabs-4>

13. Contact

INSTAT Statistics Albania

Address: Bul."Zhan D'Ark", Nr .3, Tirana, Albania

Information E-mail: info@instat.gov.al

Media and Press Office E-mail: media@instat.gov.al

Phone: +(355) 4 2222411 / Ext. 177

+(355) 4 2222411 / Ext. 161

Fax: +(355) 4 2228300

Website

Institute of Statistics: www.instat.gov.al/en/Home.aspx