

Farm structure (ef)

National Reference Metadata in ESS Standard for Quality Reports
Structure (ESQRS)

Compiling agency: Please provide the name of the organisation of the contact points for the data or metadata. Hellenic Statistical Authority (ELSTAT)

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Eurostat metadata

Reference metadata

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For any question on data and metadata, please contact: [EUROPEAN STATISTICAL DATA SUPPORT](#)

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1. Contact

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1.1. Contact organisation	<p><i>Please provide the name of the organisation of the contact points for the data or metadata.</i></p> <p>Hellenic Statistical Authority (ELSTAT)</p>
1.2. Contact organisation unit	<p><i>Please specify an addressable subdivision of an organisation.</i></p> <p>Primary Sector Statistics Division / Structure of Agricultural and Livestock Holdings Section</p>
1.5. Contact mail address	<p><i>Please specify the postal address of the contact points for the data or metadata.</i></p> <p>Pireos 46 & Eponiton Str.,18510 – Piraeus, P.O.Box 80847</p>

2. Introduction

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2.a. Brief description of the national history of Farm Structure Surveys (FSS)

*This item is of special interest for countries with less experience in FSS surveys. In these cases it is useful to include a brief description about the related statistical activities e.g. establishment/update of the statistical register, etc. Please keep the description **brief** (expected length of maximum 250 words)*

The Farm Structure Survey (FSS) is a wide range, periodic statistical survey carried out in two forms:

- A basic survey (Agricultural-Livestock Census), conducted every ten years
- A sample survey conducted on a two-year basis till 2010 and on a three-year basis since, in the period between Agricultural-Livestock Censuses.

Census surveys were carried out in the years: 1921, 1929, 1950, 1961 and every 10 years since. Sample surveys were carried out in: 1966/67, 1977/1978, 1983 and since then, every 2 years until 2010. From 2010 onward the sample survey is carried out every 3 years.

The purpose of FSS is to determine the basic structural features of the agricultural and livestock. Data are collected, according to Community legislation, on:

- General characteristics
- Utilized agricultural area
- Livestock
- Variables of special interest, such as labour force, rural development issues, management and cultivation methods.

The developments of the agricultural holdings' structure constitute the main element for the National and Community policy drawing up in the Agricultural Sector.

The unit of the survey is the agricultural or livestock holding. The sampling frame, which was used for the 2013 FSS, was the updated Register of Agricultural and Livestock Holdings compiled by ELSTAT. The sampling method used is the single random stratified sampling, according to a stratification scheme based on the Department (NUTS 3), the Typology and the Economic size, expressed through the Standard Output, of the holdings.

Aggregated data are tabulated and published online at the NUTS 1 (Large Geographical Area), NUTS 2 (Region) and NUTS 3 (Department) level.

2.b. Brief description of the national legislation of FSS

*Please **briefly** specify the following provisions from the national legislation:*

- the reference of the national legal base of the FSS survey (Act, Government Decree, etc.)

1. Act no 10361/Γ2-900/Government Gazette (G.G.) no 2860B/11-11-2013) on the "Approval, proclamation, assignment and distribution of costs for conducting the farm survey structure for the year 2013, as well as approval of using statistical representatives and determination of their fee for the year 2013" as modified by Act no 128128/Γ2-1222/20-12-2013/G.G. no 3406B/31-12-2013.

2. Act no 3256/Γ2-167/G.G. no 754B/17-03-2014 on the "Extension of the 2013 farm survey structure as well as approval of using statistical representatives and determination of their fee for the year 2014" as modified by Act no 8766/Γ2-551/16-07-2014/G.G. no 2101B/31-07-2014).

The above-mentioned national legislation deals with the scope and the coverage of FSS, assigns ELSTAT the responsibility for the surveys, determines the obligations of the respondents with respect to the survey and identification, as well as the protection and the obligations of enumerators. In addition, it includes administrative and financial provisions and provisions relevant to the right of access to administrative data.

FSS aims at the collection of statistical data on the structure of agricultural and livestock holdings of Greece and the employment therein.

These data are necessary for the planning and implementation of the national agricultural policy and the Common Agricultural Policy of

- the scope and the coverage of the survey	<p>EU. Furthermore these data also cover the needs of national agricultural development programmes as well as other international obligations of the Country.</p> <p>The statistical unit of FSS is the agricultural, livestock or mixed holding (a unified unit both in terms of technical and economic perspective, which is run by a unified management body and produces agricultural products) which:</p> <ul style="list-style-type: none"> a) has at least 0.1 ha (1 stremma) of utilized land, or b) has at least 0.05 ha (0.5 stremma) of greenhouses, regardless of the production type, ownership, or the location of the holding, or c) has animals of its own and more specifically at least: one (1) or more cows or two (2) or more other "large animals" of any type and age (oxen, horses, donkeys, mules), or five (5) or more "small animals" (sheep, goats, pigs) of any age and type, or fifty (50) or more poultry birds, or twenty (20) or more hives of "domestic" or "European" bees or five (5) or more ostriches, or d) cultivates mushrooms.
- the frequency and the reference period of the survey	<p>The FSS was conducted on a two year basis till 2010 and on a three years basis since 2010. The reference period for the 2013 FSS, as regards crops, labour force and other characteristics was the cultivation period from 1 October 2012 until 30 September 2013. The reference date as regards animal capital of the holding was the 1st November 2013.</p>
- the responsibility for the survey	<p>The Hellenic Statistical Authority (ELSTAT) is the responsible body for the surveys implementation. The responsibility for carrying out the FSS is assigned to the Section of Agricultural and Livestock Holdings Section Structure Statistics, Division of Primary Sector Statistics, General Directorate of Statistical Surveys of ELSTAT.</p>
- the administrative and financial provisions	<p>The personnel necessary for the implementation of the survey, the processing and the presentation of the data consisted of:</p> <ul style="list-style-type: none"> a. ELSTAT staff, either permanent or on long-term contract. b. Almost 2300 employees of Municipalities and other public services and private short-term contractors, as enumerators trained by ELSTAT on data collection. <p>The total amount allocated, in ELSTAT's budget, for the implementation of the 2013 FSS was 4,718,805.68 € of which 1,500,000.00 € as a contribution by the EU under Grant Agreement No 40201.2012.002-2012.979.</p>
- the obligations of the respondents with respect to the survey	<p>Private sector legal entities, associations of persons as well as natural persons entities are obliged to secure access for the ELSS representatives, to all data sources or records kept either in written or digital, magnetic or other similar form, and to provide the timely and accurately any data or raw information requested by those representatives within their competence.</p>
	<p>The enumerators were (a) private short-term contractors and (b) employees of Municipalities and other public services.</p> <ul style="list-style-type: none"> a) The private short-term contractors derived from the Enumerators Register of ELSTAT that is built up every 8 months, after a public invitation launched through the mass media. The selection takes place in compliance with a pre-defined system of rules. The applicants fill in and submit their applications online and are ranked through a

<p>- the identification, protection and obligations of survey enumerators</p>	<p>computerized system, on the basis of clear and objective criteria (e.g. availability/employment, previous experience in statistical works, level of education, etc). The applicants are selected on the basis of the ranking lists.</p> <p>b) The employees of Municipalities and other public services were selected on the basis of their experience on statistical surveys in the agricultural sector, their knowledge of the territory and the local situation in agriculture as well as their agronomic background.</p> <p>Upon signing of a contract, both categories of selected enumerators were bound to fulfill their obligations (to complete the questionnaires and to check their quality) within the defined time frame and in the best possible manner. They were also bound to observe the statistical confidentiality procedures of ELSTAT, for all collected data.</p> <p>ELSTAT provided each enumerator with an “Associate” identification card issued by the Administrative Support Division of ELSTAT.</p>
<p>- the right of access to administrative data</p>	<p>All public services and entities of the public sector are obliged to allow access to all administrative data sources, public registers and records, kept by them either in hardcopy, electronic, magnetic or other media. ELSTAT is provided access to the raw data and information.</p> <p>All data and information referred herein are used by ELSTAT and the other members of ELSS for the production of official statistics as specified in the Regulation of Statistical Obligations.</p>
<p>- confidentiality provisions</p>	<p>Hellenic Statistical System (ELSS) members protect and do not disseminate data they have obtained or have access to, and are required to take all appropriate preventive measures so as to render impossible the direct or indirect identification of individual statistical units by technical or other means that might reasonably be used by a third party. Should data or statistical confidentiality be violated, further to sanctions imposed according to articles 252, 253, 370B, 370C of the Greek Penal Code and article 4 of Law 2392/1996, there are also provisions for administrative penalties.</p> <p>ELSS members may refuse ELSTAT access to confidential data they possess or have access to, only in the case of data pertinent to national defense and security, and issues of the country’s foreign policy. The Regulation of Statistical Obligations defines the procedures for the collection and dissemination of such data in case this is necessary for the production and dissemination of statistics according to article 21 of Regulation (EC) 223/2009 without compromising data confidentiality.</p> <p>Confidential data, within the scope of ELSS, are used exclusively for statistical purposes and only personnel specifically appointed by ELSTAT may have access to them. All such personnel is legally bound to abide to existing data and statistical confidentiality regulations. Use of such data beyond the work assigned by ELSTAT is strictly prohibited. Failing to adhere to these provisions constitutes a severe disciplinary offence.</p> <p>ELSS members may grant researchers access to confidential data for scientific purposes but only after a favorable recommendation by the Statistical Confidentiality Committee (SCC) operating within the ELSS.</p>

3. Quality management - assessment

3.1 Quality assurance

ELSTAT aims at the assurance and continuous improvement of the quality of the produced statistics and the maintenance of the user's trust towards these statistics. Achievement of these goals, as described in the Quality Policy of ELSTAT, is sought through the following principle directions:

- Safeguard and substantiate the operational independence of ELSTAT
- Produce timely and relevant statistics using scientifically sound methods
- Establish and maintain users' trust in the reliability of the statistics
- Safeguard the trust of the statistical units who provide their confidential information for the production of the statistics

(<http://www.statistics.gr/documents/20181/2571f853-1e37-46da-9387-595bbe2a162b>)

The realisation of the quality objectives is effected by incorporating the directions listed above in all the stages of collection, production and dissemination of the statistics, following the relevant Quality Guidelines.

The quality assurance procedures followed during the collection and production of the statistics and especially the procedures of systematic data validation are described in the National Methodological Report

(<http://ec.europa.eu/eurostat/web/agriculture/national-methodology-reports>).

3.2 Quality assessment

First phase:

The questionnaires that had been collected by ELSTAT staff in the Regional Statistical Offices (RSOs) by department (NUTS 3) were checked in order to identify any errors. Logical checks were conducted and the questionnaires were also checked for correctness and completeness.

Second phase:

After the optical character reading of the questionnaires, additional electronic checks were also conducted. Then checks were conducted for identifying double recordings in the questionnaires and in the database. In the cases where errors were found, there was a contact with the Regional Statistical Offices in order to validate the data or to correct the errors. The results of the FSS 2013 were compared with the results of other surveys and with the available administrative data in order to identify the longitudinal trend and to assess the results.

Therefore, the results of the FSS 2013 are considered to be of high quality.

4. Relevance

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4.1. Relevance - User Needs

4.1.a Overview of the main groups of national characteristics

Please indicate the main groups of national characteristics which are surveyed.

Please include references to characteristics surveyed only for national purposes and mention for which purposes and where the request came from (i.e. which are the users).

The characteristics of the FSS 2013 fully comply with the EU Regulations and more specifically with ver.10 of the Handbook on implementing the FSS and SAPM.

The surveyed characteristics are grouped into the following categories:

- General information: location of the holding and system of farming (biological farming, owned or rented agricultural areas, etc).
- Management and labour force: all the people who are responsible for the holding or/and work in the holding.
- Agricultural area and land use: size and distribution of the land of the holding and more specifically of the utilized agricultural area (arable land, permanent crops and kitchen gardens, permanent meadows and grassland), as well as specific cultivations.
- Livestock: animals that are bred in the holding (cattle, goats, pig, poultry, horses and other animals).
- Secondary activities: activities, which are directly linked with the holding (making use of its production means) and agro-environmental issues.

There are no characteristics that are surveyed only for national purposes.

A copy of the FSS questionnaire (both in Greek and in English) is provided in the Annex to item 12.3.e.

4.1.b Reference periods/dates of the main groups of national characteristics

Please indicate the reference periods/dates of the main groups of national characteristics. *(new)* Please provide justifications if the reference periods/dates from the Regulation 1166/2008 are not respected.

The reference period for the 2013 Farm Structure Survey, as regards crops, labour force and other characteristics was the cultivation period from 1st October 2012 until 30th September 2013. The reference date as regards animal capital of the holding was 1st November 2013. The reference period for the rural development measures was the 3-year period 2011-2013.

4.2. Relevance - User Satisfaction

The FSS 2013 is conducted pursuant to EU Regulations which are compiled taking into consideration users' needs at European and international level. In order to fulfill the need of Greek users, ELSTAT carries out a User Survey. The data from this survey are posted on the portal of ELSTAT every six months at: <http://www.statistics.gr/user-satisfaction-survey>

4.3. Completeness

Characteristics not collected (non-significant, non-existent or *(new)* possibly not collected for other reasons)

For non-significant or non-existent characteristics, you may repeat the information sent to Eurostat according to art. 7 par. 3 of Regulation 1166/2008. You can also attach the relevant file to this section using the "Add file" button below.

The overall answer to this item should provide information on:

-the list of characteristics non-significant and the list of characteristics non-existent from the EU list of characteristics [\[1\]](#);

-the reasons i.e. the prevalence or physical thresholds;

-the source(s) of information used (for the prevalence or physical thresholds);

- *(new)* how are non-significant or non-existent characteristics marked in the dataset transmitted to Eurostat.

(new) In addition, please specify whether non-significant characteristics are reported under the headings of other characteristics (as in the case of some countries). If yes, please specify which those other characteristics are and please indicate if the Standard Output of those other characteristics is recalculated considering the inclusion of the non-significant characteristics.

There are no non-significant characteristics, so they are not reported under the headings of other characteristics.

The non-existent characteristics are the following: B.1.6.2 - Hops, B.1.6.7 - Linseed (oil flax), B.1.6.10 - Hemp and B.4.1.2 - Berry species. These crops were surveyed for the last time in the 1999/2000 Agricultural Census and according to the results they were not cultivated in Greece. This was also confirmed by experts of the Ministry of Rural Development and Food, both after the 1999/2000 Agricultural Census and during the years that followed.

Non-existent characteristics are marked with "0" in the dataset transmitted to Eurostat.

[\[1\]](#) See Annex III of Regulation (EC) 1166/2008 of the European Parliament and of the Council on farm structure surveys and the survey on agricultural production methods and repealing Council Regulation (EEC) 571/88.

4.3.1. Data completeness - rate

[Not requested]

5. Accuracy and reliability

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5.1. Accuracy - overall

Main sources of error

Please provide a **brief** general assessment on the main sources of error (e.g. sampling errors, measurement errors etc.)

The main types of errors are the following:

Sampling errors that derive from the application of the one-stage stratified random sampling, and were estimated through the calculation of the coefficient of variation.

Non-sampling errors that derive from any other reasons except sampling and arise during the planning, conducting, processing and final stages of estimation, in all surveys. Non-sampling errors cannot be estimated through the sampled data.

The main sources of errors are:

1. Cases of new holdings that had not been included in the Register of Agricultural and Livestock Holdings, thus creating under-coverage errors.
2. Cases where the Register of Agricultural and Livestock Holdings included holdings that were closed or holdings which had merged and which were identified during the conduct of the survey.
3. Counting errors that were identified and corrected by means of logical checks.
4. Non-response errors, which were addressed by imputation. Non-response results in bias, the importance of which is not possible to be measured through the sampling data. However, comparisons of the survey results with the corresponding data from administrative sources (Greek Ministry of Rural Development and Food), annual agricultural statistical survey, as well as the livestock and the crop production statistics surveys were taken place for gaining knowledge of biases and other non-sampling errors. Statistically significant differences were not arisen. As a result, biases and other non-sampling errors are approximately negligible.

5.2. Sampling error

Section 5.2 should be completed only in case of sample surveys.

5.2.a. Applicability of precision requirements (precision criteria)

The precision requirements stipulated in Annex IV "Precision Requirements" of the Regulation 1166/2008 are applicable only in some cases, depending on the actual value of characteristics. Thus, we are first interested to know the actual value of characteristics, in order to determine the applicability of precision requirements.

Please provide the actual values of the characteristics in a separate Excel file (template provided by Eurostat) and annex the completed file using the "Add file" button below. Here, we are interested in the point estimates (the weighted values), NOT in the relative standard errors (RSEs).

See Annex

5.2.b. Method used for estimation of relative standard errors (RSEs)

Please describe the method used for estimation of RSEs. You can annex a document with the description of method and formulae applied, using the "Add file" button.

See Annex

Annexes:

[Method used for estimation of relative standard errors \(RSEs\)](#)

[Applicability of precision requirements](#)

5.2.1. Sampling error - indicators

5.2.1.a Relative standard errors (RSEs)

(new - the information request is not new, but only the template) Please provide the RSEs in a separate Excel file (template provided by Eurostat) and annex the completed file using the "Add file" button below. The Excel file comprises tables related to the precision requirements stipulated in Annex IV "Precision Requirements" of the Regulation 1166/2008.

See Annex

5.2.1.b. (new) Reasons for possible cases where precision requirements are applicable and estimated RSEs are above the thresholds

The cases where precision requirements are applicable are identified with the information provided in section 5.2.a. For those cases, the requirement is that the estimated RSEs are below the thresholds stipulated in Annex IV "Precision Requirements" of the Regulation 1166/2008. However, in some of these cases, estimated RSEs might be above the thresholds. In the latter cases, please provide justifications.

In some cases the estimated RSEs are above the thresholds due to the following reasons:

- 1) For some holdings (mainly livestock holdings) there seems to be an inconsistency between the SO (provided from

Eurostat) based on the Register's data and the SO based on the observed LSU from the survey's results.

2) The precision requirements in some regions are above thresholds, as during the design of the survey based on those regions' characteristics it was not necessary for them to comply with the precision criteria, based on the Register's data.

Annexes:

[Relative standard errors](#)

5.3. Non-sampling error

Section 5.3 should be completed only in case of a sample survey or a census.

*Section 5.3 should **not** be completed when data are entirely taken from administrative sources. In this case, section 12.1.e.5 of the report provides the relevant information.*

Assessment of possible bias

*If comparison with another source or consistency study is made, please give a **brief** description of the source used and the differences observed which can be proof of bias.*

(new) Please also consider here bias risks associated with non-response by assessing the distribution of non-response across holdings' categories.

Non-response results in bias, the importance of which is not possible to be measured through the sampling data. However, comparisons of the survey results with the corresponding data from administrative sources (Greek Ministry of Rural Development and Food), annual agricultural statistical survey, as well as the livestock and the crop production statistics surveys were taken place for gaining knowledge of biases and other non-sampling errors. Statistically significant differences were not arisen. As a result, biases and other non-sampling errors are approximately negligible.

5.3.1. Coverage error

5.3.1.a Under-coverage errors

Under-coverage units are target population units that are not accessible via the frame. This mainly includes new units not included in the frame, either through real birth or demergers, and wrongly classified units. This generally leads to bias in the estimates. If possible, please provide an assessment on the extent of under-coverage.

Corrections and weighting for under-coverage is difficult, because it cannot be obtained from the sample itself, but only from external sources. Due to refusals and the rest not surveyed holdings, from the sample data, about 10.36% of holdings were not covered by field enumeration:

Undercoverage (%) = $\{(\text{Refusals} + \text{Rest not surveyed holdings}) / (\text{Respondents} + \text{Refusals} + \text{Rest not surveyed holdings})\} * 100$

Respondents = 79,083 holdings (includes also holdings that derived from splitting of other holdings and holdings that were used from the reserve sample)

Refusals = 2,334 holdings

Rest not surveyed holdings (holders were unknown, temporarily absent, etc) = 6,808 holdings

5.3.1.b Over-coverage

Over-coverage units are units that do not belong to the target population. Please mention whether the data was corrected for over-coverage and if yes, please describe.

Over-coverage stems from the fact that there are units accessible via the frame but they do not belong to the target population. In agricultural surveys, the over-coverage mainly has to do with holdings that were included in the farm register, they were selected in the sample, but they did not actually exist at the time of the survey (holdings out of operation, permanently or temporarily, holdings fully turned over and merged with another holding etc.). These holdings actually reduce the initial sample size and inflate the variance of the survey characteristics.

Data were adjusted for over-coverage as described in item 12.5.a.4.

5.3.1.c Misclassification errors

Misclassification refers to wrongly classified units (for example by geographical area or size) which belong to the target population. Please provide an assessment on the extent of misclassification errors and how they were

addressed.

There was no change in the allocation of units to strata between the moment of the sampling design and the reference period.

5.3.1.d Contact errors

They refer to units with incomplete or incorrect contact data. Please describe how possible errors were corrected.

From the sample data, about 2.1% of the initial sample were found to have incomplete or incorrect contact data that could not be surveyed

5.3.1.e Multiple listings

Multiple listings are units which are present more than once in the frame. Please indicate the proportion of multiple listings in the frame which are present more than once in the frame and specify how the duplicates were eliminated.

From the sample data, about 0.16% of the initial sample were found to be multiple listings.

5.3.1.f Other relevant information, if any

For cases where the result of the survey indicated that a holding had changed stratum, the holding retained the initial weight assigned to it during the design stage of the survey.

5.3.1.1. Over-coverage - rate

Please provide the value of the over-coverage rate.

The over-coverage rate is the proportion of units accessible via the frame which do not belong to the target population (e.g. holdings with ceased activities still included in the frame).

By using the sample data, the over-coverage rate (%) of closed and merged holdings amounts to 4.11% based on the following formula:

$$\text{Overcoverage rate (\%)} = (\text{Closed holdings} + \text{Merged holding} + \text{Duplicates}) / \text{Initial Size} * 100$$

Where,

Gross sample size = 92,014 holdings (Holdings in Register + New holdings + Holdings arisen from the division of holdings + Reserve sample)

Closed holdings = 1,951 holdings (Holdings that do not operate permanently + Holdings that do not operate temporarily + out-of-scope holdings)

Merged holdings = 1,685 holdings

Duplicates in the Register = 153 holdings

5.3.2. Measurement error

5.3.2.a Causes of measurement errors in the FSS survey

The causes are commonly categorised as:

- *Survey instrument: the form, questionnaire or measuring device used for data collection may lead to the recording of wrong values;*

- *Respondent: respondents may, consciously or unconsciously, give erroneous data;*

- *Interviewer: interviewers may influence the answers given by respondents.*

Please include here possible problems caused by difficult questions, unclear definitions, sensitive questions etc. which are likely to determine measurement errors.

The interview was conducted with the owner or the manager of the holding. However, if the owner or the manager was found temporarily absent then the required information could be retrieved by interviewing another member of the holder's family or from an employee with knowledge (e.g. foreman) of the holding.

The most common problematic questions/characteristics identified during the quality control of the data were the following:

- Household consumption (item A_3_3_1), sometimes reported as "yes" for large holdings,
- Kitchen gardens vs outdoor fresh vegetables (items B_2 and B_1_7_1_2),
- Permanent grassland vs common land, in some cases difficult to discern.

5.3.2.b If available, failure rates during data editing. *Please mention if the data was corrected.*

n.a.

5.3.2.c If available, assessments based on comparisons with external data, re-interviews, etc.

n.a.

5.3.3. Non response error

5.3.3.a (new) Unit non-response: reasons and treatment

Please specify the reasons for unit non-response and how the unit non-response was accounted for. Unit non-response can be accounted for by e.g. re-weighting, imputation.

In case of difficulties (no response, permanent absence of the holder etc.) the original sample holding was replaced by a holding from the “additional sample” according to the relevant rules that were given to interviewers.

In the design phase of the survey an initial weight (design weight) was given to each sampling unit (holding), estimated as the inverse probability of selection. The initial weights were corrected by a factor that takes into account the change in sample size imposed by the holders that refused to respond. The essence of this correction is to increase the initial weights of the respondents, so that they represent the non-respondents.

Corrections of this type were not applied to exhaustively surveyed strata.

5.3.3.b Item non-response: reasons and treatment

Please mention any characteristic(s) having higher item non-response rate together with the reasons of the item non-response. This information is important and will be useful for the organisation of future surveys.

Please also specify how the item non-response was accounted for. Item non-response can be accounted for by e.g. re-weighting, imputation.

There was no item non-response, because even in some very rare cases where a field in the questionnaire was not filled in, the personnel of ELSTAT contacted the farm owner in order to eliminate item non-response.

5.3.3.1. Unit non-response - rate

Please provide the ratio of the number of non-responding holdings with no information or not usable information (item 5.1, table in section 12.3.d) to the total number of in-scope (eligible) units (item 5, table in section 12.3.d).

The non-response rate is estimated to be 8.4%.

5.3.3.2. Item non-response - rate

Please provide the ratio of the in-scope (eligible) units which have not responded to a particular item (characteristic) to the in-scope (eligible) units that are required to respond to that particular item (characteristic). Please provide this rate for characteristics with high item non-response.

n.a.

5.3.4. Processing error

5.3.4.a Assessment of processing errors affecting individual observations

Please give a quantitative or qualitative assessment of processing errors.

During data processing that followed the data collection phase, errors were identified due both to the Optical Character Recognition (OCR) and erroneous or incomplete filling-in of the questionnaires.

During this validation phase all errors identified were corrected using as reference the Agricultural Register, the experience of ELSTAT's personnel and common sense. The estimated gross error rate was 3 errors per questionnaire, including all types of errors from simple misspelling of a postal code or omission to fill-in a total to erroneous values being entered.

5.3.4.b Completion/correction methods applied

These can consist of follow-up interviews, imputation, re-weighting, use of other data sources etc. Please describe.

During both the Validation and Quality control phases, corrections and/or completions deemed necessary were

performed, in order of preference, according to:

- the data already in the questionnaire (i.e. completion of missing totals),
- logical conjecture based on the experience of the handler (mostly for minor errors)
- telephone contact with the interviewee (mostly for holdings of a significant size)

5.3.4.c Imputation methods

Please specify what kind of imputation methods were used and for which items (characteristics).

No item or unit imputation was performed; hence, no imputation method was applied.

5.3.4.d Tools used and people/organisations authorised to make corrections

As stated in section 12.4.b, data validation and quality control is handled by software tools developed within the Oracle system and are custom made either by the staff of ELSTAT or by external contractors.

There are detailed manuals describing the various tests and control procedures and only ELSTAT employees with sufficient experience are authorised participate in the data Validation and Quality control process.

5.3.4.1. Imputation - rate

Please provide the ratio of the number of replaced values to the total number of values for a given characteristic, for each main characteristic where this method was applied.

No item or unit imputation was performed.

5.3.4.2. Common units - proportion

[Not requested]

5.3.5. Model assumption error

In case of models used for estimation, please provide an estimation of related errors.

n.a.

5.3.6. Data revision

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5.3.6.1. Data revision - policy

Brief description of the revision policy

The revision policy of the Hellenic Statistical Authority (ELSTAT) defines standard rules and principles for data revisions, in accordance with the European Statistics Code of Practice and the principles for a common revision policy for European Statistics contained in the Annex of the European Statistical System (ESS) guidelines on revision policy.

For more details: [ELSTAT Revision Policy](#)

5.3.6.2. Data revision - practice

Data revision practice

Please describe the practice, provide the main reasons for revisions and the extent to which the revisions improved accuracy.

Please provide the average number of revisions (planned and unplanned) for main characteristics.

No data revisions.

5.3.6.3. Data revision - average size

[Not requested]

5.3.7. Seasonal adjustment

[Not requested]

6. Timeliness and punctuality

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6.1. Timeliness

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6.1.1. Time lag - first result

Please indicate the number of months from the last day of the reference period to the day of publication of first results.

The first results were published on the 20th April 2015. The time lag was 18 months.

6.1.2. Time lag - final result

Please indicate the number of months from the last day of the reference period to the day of publication of complete and final results.

The results published on the 20th April 2015 are considered final, since there were no significant modifications during the validation process by Eurostat. As a result, the time lag was 18 months.

6.2. Punctuality

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6.2.1. Punctuality - delivery and publication

Please indicate the number of days between the delivery/ release date of data and the target date on which they were scheduled for delivery/ release.

Data were delivered to Eurostat on time, on 31st December 2014.

Data were published through a press release and on ELSTAT's website on time, on 20th April 2015, as scheduled.

7. Accessibility and clarity[Top](#)

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7.1. Dissemination format - News release

A news release is scheduled for 20/04/2015.

7.2. Dissemination format - Publications**Regular and ad-hoc publications in which data are made available to the public****7.2.a The nature of publications**

Please specify the nature of publications. For example, the publications can contain preliminary results or final results, can be technical reports, etc.

Please also specify if the publications contain metadata.

From the database of the FSS 2013, the Eurofarm file is compiled, with individual data for each holding, and dispatched to Eurostat.

Results will be published on the web site of ELSTAT (free of charge) in the form of detailed tables (national series of tables) accompanied by the relevant metadata files.

Access to microdata for individual users is not possible.

7.2.b Date of issuing (actual or planned)

The Eurofarm file was sent to Eurostat in December 2014.

Results are scheduled to be released in the first half of 2015 (free of charge).

7.2.c References for on-line publications.

A press release was published on 20th April 2015 and can be found at:

<http://www.statistics.gr/documents/20181/d7264977-eb02-4759-a671-21aa605f6dbd>

FSS 2013 results are also included in a quarterly publication titled "Greece in Figures":

http://www.statistics.gr/documents/20181/301069/GreeceInFigures_1015_EN.pdf/9ce8859e-17c6-4669-852e-1b9d4568e3ac

7.3. Dissemination format - online database

Please provide information about on-line databases in which the disseminated data can be accessed.

Tabulated data are available through the website of ELSTAT (<http://www.statistics.gr/statistics/agr>), and will be also available on the website of Eurostat.

7.3.1. Data tables - consultations

The number of consultations of on-line data tables for a given time period

Please indicate on-line data tables with an indicative number of consultations.

Not available yet.

7.4. Dissemination format - microdata access

Users can request access to microdata by submitting an application to the Hellenic Statistical Authority, Statistical Information and Publications Division, 46, Pireos & Eponiton Str, P.O.Box 80847, GR-18510, Piraeus (tel (30)213-1352022, FAX: (30)213-1352312, e-mail: data.dissem@statistics.gr).

7.5. Documentation on methodology

7.5.a Available documentation on methodology on FSS national survey

Please provide references.

The principles of the documentation on the methodology of data collection and dissemination are laid down by ELSTAT, taking into consideration international practices, guidelines and rules set out by Eurostat on the specific statistical theme:

- Regulation (EC) No 1166/2008 of the European Parliament and of the Council, of 19 November 2008, on farm structure surveys and the survey on agricultural production methods (<http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32008R1166&from=EN>)
- Regulation (EC) No 223/2009 of the European Parliament and of the Council, of 11 March 2009, on European statistics and repealing Regulation (EC, Euratom) No 1101/2008 of the European Parliament and of the Council on the transmission of data subject to statistical confidentiality to the Statistical Office of the European Communities (<http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32009R0223&from=EN>)
- European Statistics Code of Practice (<http://ec.europa.eu/eurostat/web/quality/european-statistics-code-of-practice>)
- Quality Assurance Framework of the European Statistical System (http://ec.europa.eu/eurostat/documents/64157/4392716/qaf_2012-en.pdf/8bcff303-68da-43d9-aa7d-325a5bf7fb42)
- ESS Quality Glossary (http://ec.europa.eu/eurostat/ramon/coded_files/ESS_Quality_Glossary.pdf)
- ESS Handbook for Quality Reports (<http://ec.europa.eu/eurostat/documents/64157/4373903/01-ESS-Handbook-for-Quality-Reports-2014.pdf/d6152567-a007-4949-a169-251e0ac7c655>)
- Principles Governing International Statistical Activities (http://unstats.un.org/unsd/methods/statorg/Principles_stat_activities/principles_stat_activities.pdf)

7.5.b Main scientific references

Please provide references.

1. Bellhouse (1988). Systematic sampling. In Handbook of Statistics, Vol. 6, (Eds. P.R. Krishnaiah and C.R. Rao). Amsterdam: Elsevier Science, 125-145
2. Cochran, W.G. (1977). Sampling Techniques, New York: John Wiley and Sons
3. Dalenius T., and Hodges, J.L. (1959). Minimum variance stratification. JASA, 54,88-101
4. Deming, W.E. (1953). On a probability mechanism and the bias of non-response. JASA, 48, 743-772
5. Evans, W.D. (1951). On stratification and optimum allocation. JASA, 46, 95-104
6. Hansen, M.H., Hurwitz, W.N., Madow, W.G. (1953). Sample Survey Methods and Theory. Vol. I, New York: John Wiley and Sons
7. Hess, I, Sethi, V.K., and Balakrishnan, T.R (1966). Stratification: A practical investigation. JASA, 61, 74-90
8. Holt, D., and Elliot, D. (1991). Methods of weighting for unit non-response. The Statistician, 40, 333-342
9. Kalton, G (1983). Models in the Practice of Survey Sampling. International Statistical Review, 51, 175-188
10. Kalton, G. and Kasprzyk, D. (1986). The Treatment of Missing Survey Data. Survey Methodology, 12, 1-16.
11. Kalton, G. and Flores – Gervantes, I. (2003). Weighting Methods. Journal of Official Statistics, 19, 81-97.

12. Kish, L., (1965). Survey Sampling, New York: John Wiley and Sons
13. Kish, L., and Frankel, M.R. (1974). Inference from complex samples. Journal of the Royal Statistical Society, A, 139,80-95
14. Kish, L., and Anderson, D.W. (1978). Multivariate and multipurpose stratification. JASA, 73, 24-34
15. Kish, L., (1987). Statistical Design and Research, New York: John Wiley and Sons
16. Kish, L., (1988). Multipurpose Sample Designs. Survey Methodology, 14, 19-32
17. Kish, L., (1989). Sampling Methods for Agricultural Surveys, Rome: Food and Agricultural Organization of the United Nations
18. Kish, L., (1992). Weighting for Unequal Pj. Journal of Official Statistics, 8, 183-200
19. Kish, L (1995). Questions/Answers (1978-1994), Paris: INSEE, International Association of Survey Statisticians
20. Little, R.J.A. (1982). Models for non-response in sample surveys. JASA, 77, 237-250
21. Little, R.J.A. (1986). Survey non-response adjustments for estimates of means. International Statistical Review, 54, 139-157
22. Madow, L. H (1946). Systematic sampling and its relation to other sampling designs. JASA, 41, 207-214
23. Murthy, M.N. and Rao, J.T.(1988). Systematic sampling with illustrative examples. In Handbook of Statistics, Vol. 6, (Eds. P.R. Krishnaiah and C.R. Rao). Amsterdam: Elsevier Science, 147-185
24. Royall, R.M and Herson, H.J. (1973). Robust Estimation in Finite Populations I. JASA, 68, 880-889
25. Royall, R.M and Herson, H.J. (1973). Robust Estimation in Finite Populations II: Stratification on a Size Variable. JASA, 68, 890-893
26. Sarndal, Swensson, and Wretman (1992). Model Assisted Survey Sampling. New York: Springer-Verlag
- Thomsen, I. (1977). On the effect of stratification when two stratifying variables are used. JASA, 72, 149-153

7.5.1. Metadata completeness - rate

[Not requested]

7.5.2. Metadata - consultations

[Not requested]

7.6. Quality management - documentation

Available documentation on quality

Please provide references.

The following quality reports will be made available:

- Summary quality report for users, Farm Survey Structure, Year 2013
- Metadata in Euro-SDMX format (ESMS), Farm Survey Structure, 2013, ELSTAT
- Single Integrated Metadata Structure (SIMS), Farm Survey Structure, 2013, Greece

The National Methodological Report of the survey will also be available upon request. Users can send their request to: Statistical Information and Publications Division, 46, Pireos & Eponiton Str, P.O.Box 80847, GR-18510, Piraeus (tel (30)213-1352022, FAX: (30)213-1352312, e-mail: data.dissem@statistics.gr)

7.7. Dissemination format - other

[Not requested]

8. Comparability

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8.1. Comparability - geographical

8.1.a National vs. EU definition of a holding

Please indicate possible differences between the national definition and the EU definition of the holding [2].

Please also indicate the reasons.

The results of the FSS 2013 are comparable with the results of other EU Member States because they are based on common definitions of the statistical unit and common procedures for data processing as stipulated by Article

2.a and Annex I (concerning the agricultural activities) of Regulation 1166/2008 of the European Parliament and of the Council.

8.1.b National survey coverage vs. coverage of the records sent to Eurostat

Please indicate possible differences between the population covered in the national survey and the population covered by the records sent to Eurostat. Please also specify the reasons.

The population covered in the national survey may be different from the population covered by the records which are sent to Eurostat, in case very low national thresholds are applied or no national thresholds are applied.

The data reported to Eurostat refer to the same population covered by the national survey as described in Section 2b above.

8.1.c National vs. EU definitions of characteristics

Please indicate the version of the Handbook on implementing the FSS definitions used for the organisation of the current FSS survey.

Please indicate possible differences between national and EU definitions of characteristics and classifications of characteristics, the differences, the reasons and the impact on the comparability with the EU definitions. This information is relevant for users.

Please also indicate the number of hours per year for a full-time employee, used to calculate the Annual Work Unit.

The FSS definitions used for the organisation of the current FSS survey were based on Commission Regulation (EC) No 1200/2009 of 30 November 2009 "Implementing Regulation (EC) No 1166/2008 of the European Parliament and of the Council on farm structure surveys and the survey on agricultural production methods, as regards livestock unit coefficients and definitions of the characteristics and on the Handbook on implementing the FSS and SAPM definitions, ESTAT/E-1, rev.10.

There are no differences between the national and EU definitions.

An Annual Working Unit is equivalent of 275 days/2200 hours per year for a full-time employee.

8.1.d Common land

The legal change of the utilised agricultural area concept, and also the fact that there are various options for the coverage of the common land make this an obligatory section in this report for all countries.

8.1.d.1 Current methodology for collecting information on the common land

If common land does not exist in the country, please specify this.

If common land exists and you do not collect information on common land, please specify this and the reasons.

If you collect information on common land, please describe the methodology by referring to the below options.

Combinations of the options are possible; if you use more options, please briefly describe each one.

- common land is included in the land use data of the agricultural holdings making use of the common land.

- common land is included as special holdings i.e. the common land holdings. In addition to records with data representing agricultural holdings, records representing the common land holdings are created.

- common land is collected at regional level and included in regional records. In addition to records with data representing agricultural holdings, records representing the regional sum of the common land are created. According to discussion in a Working Group, this third option has been converted into the second option (common land holdings) allowing all common land to be formatted and included in the Eurofarm tables.

In addition, please specify:

- whether there was a set of specific questions in the FSS questionnaire on common land or a separate questionnaire.

In the case of a separate questionnaire, it should be attached to this report, section 12.3.e.

- (new) how was the common land treated in terms of tenure classification;

- (new) how can common land be identified in the data.

Common Lands in Greece are permanent grassland and meadow used as pasture for cattle, sheep and goat. Arable land and permanent crops are not part of common lands. A relevant question was not included in the FSS questionnaire because common land is an area used jointly by several holdings and it is not possible to assign a specific section to each farmer, therefore double-counting could not be, realistically, avoided. In line with the decision of the 21-23 September 2009 FSS WG meeting, common land should be recorded using one of three recommended methods (Handbook on implementing the FSS and SAMP definitions, FSS-Rev 10).

ELSTAT adopted the 3rd method as it has been converted into the 2nd one. So, according to the method used common land is reported as assigned to 51 special 'common land agricultural holdings' which represent the 51 NUTS 3 regions of

the country. Special units were recorded in the dataset, and considered as agricultural holdings with activity 'providing grassland for feeding livestock' (NACE 68.20).

In the FSS data transmitted to Eurostat records referring to this type of farms were marked with a flag. These holdings were treated like a legal personality holding and all fields are filled in accordingly to that. The type of tenure selected for these holdings was "Agricultural area utilised for shared farming or other modes".

Field A08 of these holdings (holding identification number) begins with "99999" followed with the corresponding Nuts3 code.

The common land data were obtained from the Payment and Control Agency for Guidance and Guarantee Community Aid (OPEKEPE) who, in turn, has collected the data from the applicants for the Community Aid (farm holders), under its competence as the Integrated Administration and Control System (IACS) operator.

8.1.d.2 Possible problems encountered in relation to the collection of information on common land and possible solutions for future FSS surveys

Please provide this information in case information on common land is collected.

The correspondence between IACS and FSS definitions had to be worked out and checked, since this was the first time that IACS data were used for this reason.

Further refinement and possible additions to the IACS application form might improve this operation, and are already considered within the framework of cooperation between OPEKEPE and ELSTAT within the ELSS.

8.1.d.3 Total area of common land surveyed in the reference year

Please indicate the survey estimate in case information on common land is collected.

Results: Common land area 1.475.268,16 ha.

8.1.d.4 (new) Number of agricultural holdings making use of the common land or Number of (specially created) common land holdings in the reference year

Please indicate this number in case information on common land is collected.

A total of 51 special holdings have been created to accommodate common lands

8.1.e. Location of the holding

8.1.e.1 The origin of the coordinates

Please specify from which source you have obtained the origin of the coordinates (the geographical reference of the holding). This is required in the Handbook (document 3.1. Methodology - Handbook on implementing the FSS and SAPM definitions - REV 10). For example: cadastre information system, IACS (Integrated Administrative Control System), CAPI (Computer Assisted Personal Interview) with digital maps, address register (address of the farm or of the farmer), LAU2 (village, town, municipality etc.) region of the farm.

The current situation in Greece is the following:

- o The National Cadastral Register is not yet finalized so it is impossible to use it for the geo-reference of the holding.
- o The Ministry of Rural Development and Food and its supervised organizations keep various registers that are not yet completed, as far as the location of the holding is concerned. Nevertheless, even when they will be completed, they will not have the appropriate format for ELSTAT to use, as there is a difference in the definition of agricultural holdings between the Ministry of Rural Development and Food and ELSTAT.

So, both the National Cadastral Register and the various agricultural registers of Ministry of Rural Development and Food and its supervised organizations are valuable administrative sources that could be used in the future, but not at the moment.

Facing these issues, in the framework of the 2009 Agricultural Census, ELSTAT collaborated with Eurostat and alternative methods of providing data on the location of the holding were sought.

The intermediate solution found was to provide the geographic co-ordinates of the central points of the locality, where the farm is located, instead of the coordinates of the holding itself.

The locality is a subdivision of LAU2. Each LAU2 consists of one or more settlements or localities. There are data concerning latitude and longitude for each locality code. There are 13.548 different localities in Greece.

8.1.e.2 (new) The reference system

Eurostat asks to transmit the coordinates based on the reference system ETRS89 (European Terrestrial Reference

system 1989) but has set up his system to allow coordinate transformation from different reference systems. Please specify the reference system used in countries to store data on location of the agricultural holdings. This information is required by the Handbook (document 3.1. Methodology - Handbook on implementing the FSS and SAPM definitions - REV 10).

The reference system used was the National Geodetic Reference System (Greece 87) EPSG 4121, as in the 2009 Agricultural Census.

8.1.e.3 (new) The rounding of the coordinates

Eurostat recommends the transmission of the exact coordinates (the data is handled respecting statistical confidentiality provisions).

If countries still round the coordinates to a grid system, Eurostat recommends the grid based on the INSPIRE data specification on Coordinate Reference System.

Please specify if you transmit the exact coordinates or if you round them. If in the last case, please briefly describe the rounding method and the level of the rounding. For example: LAU2, regions lower than LAU2, census enumeration areas, grids, grouping by 5 holdings (ranked by latitude and longitude).

Since the geographic coordinates reported refer to the settlement or locality rather than the actual location of the holding, there is some inherent rounding to a level lower than LAU2 (each LAU2 consists of one or more settlements or localities).

8.1.e.4 (new) The criteria used to determine the NUTS3 region of the holding

Please indicate which criterion is used to determine the NUTS3 region of the holding. Criteria:

- the majority of the total area of the holding where the holding is located;
- the building (administrative, for livestock or other production);
- the most important parcel (in terms of production);
- the residence of the farmer (if it is not further than 5 km from the farm).

The most important parcel of the holding (in terms of production) is used to determine the NUTS3 region of the holding, meaning criterion no3.

8.1.f (new) Organic farming

Possible differences between national standards and rules for certification of organic products and the ones set out in Council Regulation No.834/2007

Please mention possible differences. This information is requested by the handbook (document 3.1. Methodology - Handbook on implementing the FSS and SAPM definitions - REV 10).

Council Regulations Nos 834/2007 and 889/2008 have been fully incorporated into national legislation on organic agricultural and livestock products, whereas additional legislative documents (Common Ministerial Decision 295191/22-04-2009, Circular No 970/59453/17-05-2013) were also fully adapted to Council Regulation No 834/2007.

[\[2\]](#) See Article 2 of Regulation (EC) 1166/2008 of the European Parliament and of the Council on farm structure surveys and the survey on agricultural production methods and repealing Council Regulation (EEC) 571/88

8.1.1. Asymmetry for mirror flow statistics - coefficient

Non existent

8.2. Comparability - over time

8.2.a Possible changes of the definition of the holding, the reasons and the impact of the changes on the comparability with previous sample survey/census data

Please indicate the relevant case from the ones below:

- a. There have been no changes, in which case this should be reported.
- b. There have been some changes but not enough to warrant the designation of a break in series.
- c. There have been sufficient changes to warrant the designation of a break in series.

In the second and third cases, please indicate the changes, the reasons and their impact on the comparability over time. Particularly in the third case, please indicate any information relevant for users.

All the variables of the Farm Structure Surveys can be compared longitudinally because the results are produced on the basis of common definitions of the statistical unit and common procedures for data processing.

8.2.b (new) Possible changes in the coverage of holdings for which records are sent to Eurostat, the reasons and the impact on the comparability with previous sample survey/census data processed by Eurostat

Please indicate the relevant case from the ones below:

- a. There have been no changes.*
 - b. There have been some changes but not enough to warrant the designation of a break in series.*
 - c. There have been sufficient changes to warrant the designation of a break in series.*
- In the second and third cases, please indicate the changes, the reasons and their impact on the comparability over time. Particularly in the third case, please indicate which procedure Eurostat should apply to compare the data over years and any other information relevant for users.*

The rules determining the coverage of the survey have not changed.

8.2.c Changes of definitions and/or reference time and/or measurements of characteristics, the reasons and the impact of the changes on the comparability with previous sample survey/census data

Please specify the characteristics whose definitions underwent changes, the reasons and the impact on the comparability over time.

Please indicate the relevant case from the ones below:

- a. There have been some changes but not enough to warrant the designation of a break in series.*
 - b. There have been sufficient changes to warrant the designation of a break in series.*
- Particularly in the second case, please indicate any information relevant for users.*

No changes have been made in the definitions and/or reference time and/or measurements of characteristics.

8.2.d (new) Changes over time in the results as compared to previous sample survey/census, which may be attributed to sampling variability

This item is applicable when at least one of the two surveys whose results are compared is carried out as a sample survey.

Please indicate any information relevant for users.

The estimation of changes over time in the results concerning specific attributes of agricultural holdings are directly related to their frequency in the population. Thus in cases where the attribute is rare the relevant estimations will not be expected to be of high accuracy.

8.2.e Common Land

8.2.e.1 Possible change in the decision or in the methodology to collect common land, compared with previous sample survey/census data and reasons.

Please specify possible changes and reasons.

Common land data in the Agriculture-Livestock Census 2009 was collected using a special questionnaire. The unit was the Communal Department (LAU 2) and the questionnaires were completed by the statistical correspondents in the Municipalities in cooperation with the staff of ELSTAT's Regional Statistical Offices. Originally, the 2009 Census data were transmitted at the NUTS 3 level, according to option 3 of the Methodology-Handbook on implementing the FSS and SAMP definitions, however at a later stage the common land data were re-transmitted as "special holding".

As detailed in Section 8.1.d above, as far as FSS 2013 is concerned, common land data were obtained from IACS and reported as "special holding". The main reason for this change was the effort of ELSTAT on promoting the use administrative data for statistical purposes and the increased cost of the former procedure.

8.2.e.2 Change of the total area of common land and of the number of agricultural holdings making use of the common land / number of common land holdings compared with the previous sample survey/census data and possible reason(s)

Please specify.

The total area of common land reported for the 2009 Agriculture-Livestock Census was 1.699.580 ha whereas for the FSS 2013 the respective figure is 1.475.268 ha.

In both cases common land was reported using 51 special holdings, one for every NUTS 3 region of the country. The observed differences are partly due to the high inter-annual variability of this parameter, depending on

whether farmers rent the area for exclusive use by their animals – in which case it is reported in the questionnaire of this holding as pasture and meadow- or not. Also, there is a dependence on the changes in the number of grazing animals. Finally, differences in the reported common land area, may be partly justified by the change of the data collection methodology used, leading to a more uniform regional distribution of the common lands across the country.

8.2.f Major trends on the main characteristics compared with the previous sample survey/census data

Please complete the following table. Comments must be given in case there is a change of more than 10% in the current FSS survey compared with the previous one for any numeric main characteristic.

This comparison concerns the population covered by the records sent to Eurostat.

Main characteristic	Current FSS survey	Previous FSS survey	Difference in %	Comments
Number of holdings	709.501	723.058	-1,87	
UAA (A_3_1), ha	4.856.781,9	5.177.508,9	-6,19	
Arable land, ha	1.816.798,9	1.767.896,5	2,77	
Cereals (B_1_1)	1.001.811,1	1.018.085,2	-1,60	
Permanent grassland (B_3), ha	2.102.380,0	2.450.237,0	-14,20	The decrease of permanent grassland is in line with and due to the decrease in LSU.
Permanent crops (B_4), ha	929.075,8	950.268,3	-2,23	
Olive plantations (B_4_3), ha	687.664,3	705.961,0	-2,59	
Vineyards (B_4_4), ha	80.024,1	86.340,7	-7,32	
Fallow land (B_1_12_1 +B_1_12_2), ha	140.388,5	151.009,9	-7,03	
LSU in LSU	2.142.977,0	2.406.519,1	-10,95	The decrease was thoroughly studied and checked. There was close collaboration with the Ministry of Rural Development and Food. In addition, a very large number of farmers were contacted ex-post by phone in order to confirm the decrease of the number of animals of their holding. The study certified that indeed during the last years there was a decrease of the number of animals that are bred, especially poultry, due to the economic crisis.
Cattle (C_2), head	620.470	651.783	-4,80	
Family Labour force (E_1_1+E_1_3) - in persons	1.218.273,6	1.191.008	2,29	
Family Labour force (E_1_1+E_1_3) - in AWU	395.301,5	354.462	11,52	Due to the economic crisis family-run holdings cannot afford to hire permanent or temporary workers. As a result, farmers themselves and their family cover the required workload.
Non family labour force (E_1_4+E_1_5+E_1_6) - in persons	1.690.426,2	2.082.384	-18,82	See above
Non family labour force (E_1_4+E_1_5+E_1_6) - in AWU	71.690,9	79.535	-9,86	

8.2.1. Length of comparable time series

A total of 12 reference periods, since 1983, is available.

8.3. Comparability - domain

Comparisons with other data sources at micro/macro level

Other data sources can be for example administrative data, crop production surveys, animal surveys, labour force surveys, National Accounts.

If you run comparisons, please give a brief description of the results of these comparisons and possible adjustment made to FSS data. If not, please indicate why not.

8.3.a Comparisons at micro level

No comparisons at micro level were performed.

8.3.b Comparisons at macro level

The FSS 2013 results were compared with data from the 2009 Census and former Farm Structure Surveys, as well as other special annual agricultural surveys and data from administrative sources (Ministry of Rural Development and Food etc.).

In variables where big variations were detected, (the percentage of variation depends on the kind of variable), then an in depth analysis was carried out in close cooperation with the regional offices and Ministry of Rural Development and Food.

In addition aggregated common land data were crosschecked with the respective data from the Annual Agricultural Statistical Survey at the LAU2 level, as described in Section 8.1.d.1.

9. Coherence

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9.1. Coherence - cross domain

(new) Coherence with other data sources

Please indicate whether the FSS statistics are reconcilable (i.e. can be combined) with those obtained through other data sources or statistical domains.

The results exhibit partial coherence with the Livestock and the Crop Production Statistical Surveys, while there is no cross-domain coherence with the Annual Agricultural Statistical Survey (AASS) since the statistical unit differs. The unit for the Agricultural-Livestock Census is the agricultural or livestock holding, whereas for AASS it is the Municipal/Local Commune.

9.1.1 Coherence - sub annual and annual statistics

[Not requested]

9.1.2. Coherence - National Accounts

[Not requested]

9.2. Coherence - internal

Internal coherence of correlated variables is ensured by means of checking the specific data of each holding.

10. Cost and Burden

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Co-ordination with other surveys: burden on respondents

Please indicate if there is any co-ordination between surveys to avoid the situation that some farms have to answer multiple questionnaires with the same kind of questions.

There was no co-ordination with other surveys.

11. Confidentiality

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The confidentiality is required by law. This report should confirm these arrangements.

Please provide the requested information, taking into consideration that this report is a non-confidential document.

11.1. Confidentiality - policy

Dissemination of micro-data to external users for research purposes

Please mention if micro-data are also disseminated and if yes, the confidentiality provisions that are applied.

The issues concerning the observance of statistical confidentiality by the Hellenic Statistical Authority (ELSTAT) are arranged by articles 7, 8 and 9 of the Law 3832/2010 as in force, by Articles 8, 10 and 11(2) of the Regulation on Statistical Obligations of the agencies of the Hellenic Statistical System and by Articles 10 and 15 of the Regulation on the Operation and Administration of ELSTAT.

More precisely ELSTAT disseminates the statistics in compliance with the statistical principles of the European Statistics Code of Practice and in particular with the principle of statistical confidentiality.

According to the above, ELSTAT protects and does not disseminate data it has obtained or it has access to, which enable the direct or indirect identification of the statistical units that have provided them by the disclosure of individual information directly received for statistical purposes or indirectly supplied from administrative or other sources. ELSTAT takes all appropriate preventive measures so as to render impossible the identification of individual statistical units by technical or other means that might reasonably be used by a third party. Statistical data that could potentially enable the identification of the statistical unit are disseminated by ELSTAT if and only if:

a) these data have been treated, as it is specifically set out in the Regulation on Statistical Obligations of the agencies of the Hellenic Statistical System (ELSS), in such a way that their dissemination does not prejudice statistical confidentiality or

b) the statistical unit has given its consent, without any reservations, for the disclosure of data.

The confidential data that are transmitted by ELSS agencies to ELSTAT are used exclusively for statistical purposes and the only persons who have the right to have access to these data are the personnel engaged in this task and appointed by an act of the President of ELSTAT.

ELSTAT may grant researchers conducting statistical analyses for scientific purposes access to data that enable the indirect identification of the statistical units concerned. The access is granted provided the following conditions are satisfied:

a) an appropriate request together with a detailed research proposal in conformity with current scientific standards have been submitted;

b) the research proposal indicates in sufficient detail the set of data to be accessed, the methods of analyzing them, and the time needed for the research;

c) a contract specifying the conditions for access, the obligations of the researchers, the measures for respecting the confidentiality of statistical data and the sanctions in case of breach of these obligations has been signed by the individual researcher, by his/her institution, or by the organization commissioning the research, as the case may be, and by ELSTAT.

Issues referring to the observance of statistical confidentiality are examined by the Statistical Confidentiality Committee (SCC) operating in ELSTAT. The responsibilities of this Committee are to make recommendations to the President of ELSTAT on:

- the level of detail at which statistical data can be disseminated, so as the identification, either directly or indirectly, of the surveyed statistical unit is not possible;
- the anonymization criteria for the microdata provided to users;
- the granting to researchers access to confidential data for scientific purposes.

The staff of ELSTAT, under any employment status, as well as the temporary survey workers who are employed for the collection of statistical data in statistical surveys conducted by ELSTAT, who acquire access by any means to confidential data, are bound by the principle of confidentiality and must use these data exclusively for the statistical purposes of ELSTAT. After the termination of their term of office, they are not allowed to use these data for any purpose.

Violation of data confidentiality and/or statistical confidentiality by any civil servant or employee of ELSTAT constitutes the disciplinary offence of violation of duty and may be punished with the penalty of final dismissal.

ELSTAT, by its decision, may impose a penalty amounting from ten thousand (10,000) up to two hundred thousand (200,000) euros to anyone who violates the confidentiality of data and/or statistical confidentiality. The penalty is always imposed after the hearing of the defense of the person liable for the breach, depending on the gravity and the repercussions of the violation. Any relapse constitutes an aggravating factor for the assessment of the administrative sanction.

11.2. Confidentiality - data treatment

The procedures applied for ensuring confidentiality of the data during dissemination

Procedures can include controlled rounding, cell suppression, aggregation of disclosive information, aggregation rules on aggregated confidential data, primary confidentiality with regard to single data values etc. Main reference: [Handbook on Statistical Disclosure Control](#) (2007).

To ensure adherence to the confidentiality provisions set out in section 11.1, prior to their publication FSS data are subject to the following procedures:

- for sample survey data, aggregation of micro-data to a minimum level of NUTS3,
- primary cell suppression on the aggregated data, using minimum frequency rules, according to the recommendations of the SCC, and
- secondary cell suppression with full singleton handling.

The above procedures are implemented using the τ -argus software.

12. Statistical processing

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Survey organisation and calendar

Please provide *brief* information on:

12.a The steps of the survey organisation and the starting and ending time of each step.

This information could help countries in the future planning of the activities.

As guidelines, the steps can consist of the following. Please adapt to the national situation if needed.

1. definition of survey objective and requirements:

1.1. formation of workgroups for survey organisation;

1.2. consultation of users;

1.3. set-up objectives, target population, statistical units, classifications, precision requirements etc.;

1.4. survey promotion.

2. survey design:

2.1. set-up organisation of the survey (e.g. detailed timetable, specification of resources, costs estimation);

2.2. definition of the survey variables;

2.3. design of the sampling frame and sampling procedures;

2.4. design of data collection procedures (e.g. questionnaire design, selection of data collection modes etc.);

2.5. design of data processing procedures (e.g. CATI/CAPI/CAWI input programmes etc.);

2.6. pilot survey organisation and execution.

See Annex

<p>3. data collection:</p> <p>3.1. sampling frame construction and sample selection;</p> <p>3.2. recruitment of interviewers;</p> <p>3.3. training of interviewers;</p> <p>3.4. fieldwork;</p> <p>3.5. evaluation and assessment of fieldwork.</p> <p>4. data processing and validation:</p> <p>4.1. data entry and data coding;</p> <p>4.2. data validation (at record level);</p> <p>4.3. data correction and imputation.</p> <p>5. data compilation:</p> <p>5.1. weight calculation and estimation;</p> <p>5.2. calculation of derived variables;</p> <p>5.3. calculation of quality indicators (e.g. non-response rates, relative standard errors, coverage errors, bias etc.);</p> <p>5.4. aggregation and tabulation;</p> <p>5.5. validation of aggregated data.</p> <p>6. data analysis</p> <p>7. data dissemination</p>	
<p>12.b The bodies involved and the split of responsibilities among bodies with respect to the main steps of the survey process</p>	<p>ELSTAT had the full responsibility for carrying out FSS 2013. Appropriate assignments were delivered among the various Divisions of the Central Office and the Regional Offices.</p> <p>More specifically:</p> <ul style="list-style-type: none"> - the Structure of Agricultural and Livestock Holdings Section/ Primary Sector Statistics Division had the overall responsibility for the survey and was directly responsible for every step except the ones mentioned below. - the Methodology, Analysis and Research Section/ Organization, Methodology and International Relations Division was responsible for steps 1b, 2a, 4e. - the Regional Offices carried the burden for step 2g, 3a, 4a. - the Applications Development Section/ Informatics Division was responsible for step 5a, 5c.
<p>12.c Serious deviations (if any) from the established calendar and reasons. Please mention only serious deviations with significant consequences on the quality and the transmission time of data to Eurostat.</p>	<p>No deviations from the established calendar were observed</p>

Annexes:

[The steps of the survey organisation and the starting and ending time of each step](#)

12.1. Source data

12.1.a Target population

12.1.a.1 The national definition of an agricultural holding

Please mention if the national definition of the holding is as according to the EU definition [\[3\]](#) or not. If not,

please mention the national definition of a holding.

The national definition of the holding is as according to the EU definition.

12.1.a.2 The number of holdings in the population disregarding any possible thresholds applied (the entire number of holdings in the country), according to the EU definition of a holding or, if different from the EU definition of a holding, according to the national definition.

Please indicate the number. If it is not possible to provide this information, please provide the reasons.

The total number of holding in the Agricultural Register of ELSTAT is 735,514 holdings.

12.1.a.3 The national survey coverage; the thresholds applied in the national survey (if any) and the geographical coverage

Please briefly describe the national target population which is the population for which national inferences are made.

Please consider possible thresholds applied in the national survey and please mention them.

Please mention the geographical coverage (including any geographical areas not covered).

The survey was conducted in all districts of Greece and the target population is all the agricultural, livestock or mixed holdings, which satisfy the following thresholds:

- a) At least 0.1 ha (1 stremma) of utilized land or at least 0.05 ha (0.5 stremma) of greenhouses, regardless of the production type, ownership, or the location of the holding, or
- b) At least: one (1) or more cows or two (2) or more other "large animals" of any type and age (oxen, horses, donkeys, mules), or five (5) or more "small animals" (sheep, goats, pigs) of any age and type, or fifty (50) or more poultry birds, or twenty (20) or more hives of "domestic" or "European" bees or five (5) or more ostriches.
- c) Mushroom cultivation

12.1.a.4 (new) The number of holdings in the nationally covered population (see 12.1.a.3), according to the EU definition of a holding or, if different from the EU definition of a holding, according to the national definition.

Please indicate the number. These are holdings in the national survey coverage. If national thresholds are applied, the size of the national survey population is the number of holdings in the population by considering the thresholds applied in the national survey (see 12.1.a.3).

The number of holdings in the population covered by FSS 2013 is 725,684.

12.1.a.5 (new) The survey coverage of the records sent to Eurostat

The survey coverage of the records sent to Eurostat can be different from the national survey coverage in case very low (or no) national thresholds are applied.

Please indicate if the coverage of the records sent to Eurostat is different the national survey coverage. If yes, please indicate the differences and how you selected the records sent to Eurostat.

The coverage of the records sent to Eurostat is the same as the national survey coverage.

12.1.a.6 The number of holdings in the population covered by the records transferred to Eurostat, according to the EU definition of a holding and, if different from the EU definition of a holding, according to the national definition (*this number should be reported as item 1, in the table from section 12.3.d*).

The number of holdings in the population covered by the records transferred to Eurostat for the FSS 2013 is 725,684.

12.1.a.7 (new) Records sent to Eurostat on holdings with standard output equal to zero.

These can be holdings with only fallow land and/or only kitchen gardens and/or only crops and animals for which standard output coefficients are not defined (crops and animals not valued). In the case of a few countries, a significant amount of records have been sent to Eurostat with standard output equal to zero. Please provide any information that could help Eurostat and users to better understand why standard output is equal to zero and why those holdings are included in the survey.

The number of records with a standard output of zero, transferred to Eurostat for the FSS 2013, is 457. These holdings are eligible to be included in the survey since their land is maintained in good agricultural and environmental conditions.

12.1.a.8 Proofs that the requirements stipulated in art. 3.2 and (new) 3.3 of the Regulation 1166/2008 are met in the data transmitted to Eurostat

Art. 3.2: *However, Member States which use a survey threshold above one hectare shall fix this threshold at a level that excludes only the smallest agricultural holdings which together contribute 2% or less to the total utilised agricultural area excluding common land and 2% or less to the total number of livestock units.*

Art. 3.3: *In any case, all agricultural holdings reaching one of the physical thresholds specified in Annex II shall be covered.*

The national physical thresholds regarding crops and animals for the FSS 2013, as well as all previous FSS, are lower than the ones in Annex II of the Regulation (EC) 1166/2008 (Section 2.b), therefore the relevant data transferred to Eurostat meet the requirements of art. 3.2 and 3.3 of that Regulation.

12.1.b Source of data

Please mention the source of data for example exhaustive coverage of units in a survey (census), sample survey, use of administrative sources, combinations, etc.

The data were collected through a sample survey covering about 10% of the target population using one-stage stratified sampling, except for the data on common land which were obtained from an administrative source (IACS register from OPEKEPE).

12.1.c (Sampling) frame

Section 12.1.c refers to the frame used to identify holdings to be surveyed and therefore should be completed only in case of a sample survey or a census.

not be completed when data are entirely taken from administrative sources. In this case, section 12.1.e of the report provides the relevant information.

12.1.c.1 Source of the frame

Please specify the source of the frame, for example a statistical register (farm register, business register etc.), an administrative source etc.

The Sampling Frame, which was used in this survey, was the updated Register of Agricultural Holdings of ELSTAT (Farm Register) as this resulted from the Agricultural Census of 2009-2010 and the relevant updating procedures hence. The Farm Register is a statistical register generated and updated periodically during the Agricultural Censuses. Furthermore the Farm Register is updated from administrative sources (Registers of the Ministry of Rural Development and Food and the Ministry of Finance, specifically on New Farmers and Organic Farming), as well as other surveys conducted by ELSTAT such as the FSS (conducted every three years), the specialised national annual agricultural surveys: orchard survey, areas under vine, cereal production, crop production other than cereals, pigs livestock, cattle livestock, sheep livestock, goats livestock).

12.1.c.2 Type of frame

Please specify whether it is a list frame or an area frame, whether you used a combination of multiple frames etc.

The Farm Register is a list frame.

12.1.c.3 Time reference and updating process for the frame

The sampling frame for the 2013 FSS was based on the latest available version of the Farm Register. Data from the rest of ELSTAT's statistical registers, originating from specialised national annual agricultural surveys were compared and crosschecked to those of the Farm Register on the basis of the identification data of the holder.

Cases of holders present in the new farmers and the organic farming registers of the Ministry of Rural Development and Food but not in the Farm Register were added as new entries with distinctive identification numbers. These new entries were surveyed exhaustively in order to obtain adequate information that would allow the determination of the techno-economic size of the holding and thus the respective stratum to be used in a subsequent sampling survey.

That was the basic procedure to update the Farm Register at the preparatory phase. In some cases though, characteristics necessary for the identification of the holding were still missing, making the identification impossible. In those cases the supervisors of the FSS collaborated with the departments of Agriculture located in the Prefectures to clarify whether the holdings were in operation or not, and if in operation, to obtain the necessary missing information for the holdings.

12.1.d Sampling design

Section 12.1.d should be completed only in case of a sample survey.

Please describe the sampling design according to the following structure. This structure aims to increase the clarity and comparability of information between countries.

12.1.d.1 the name of the sampling design and whether it is a probability design.

A probability sampling design ensures known probabilities for units selected. In practice, non-response generally makes samples depart from the probability ones. However, the point here is to report on whether or not the gross sample (net sample plus non-respondents) has been selected in a probability way.

The sampling method used by the ELSTAT is the one-stage stratified random sampling (probability design), with sampling unit is agricultural, livestock or mixed holding.

The sampling units were drawn randomly from the sampling frame. In detail, in each stratum the sample has been selected with equal probabilities by systematic random sampling from the population of holdings belonging to this stratum.

12.1.d.2 (new) the number of sampling stages.

If the survey sample is selected from another sample (e.g. master sample) please consider this stage. If you use sub-sampling for some of the characteristics, please distinguish the cases in your answer.

The survey sample is selected from the Statistical Farm Register. The design of the survey was based on one-stage stratified random sampling.

12.1.d.3 (new) the sampling unit at each stage

For example, sampling units can be holdings in a single-stage design or municipalities/villages as primary sampling units and holdings as secondary sampling units in a two-stage design etc.

The sampling unit is the agricultural, livestock or mixed holding.

12.1.d.4 the stratification variables and the sampling stage where they are applied

For example, in a single-stage design, holdings can be stratified by region and size.

According to this sampling scheme (one-stage stratified random sampling) and for holdings included in the Register of ELSTAT, the strata were created by the combination of the following stratification criteria:

- NUTS III (54 areas in Greece - 50 districts and Attica district which is divided into 4 areas)
- The general type of farming according to the technical and economic orientation of holdings
- The economic size of holdings was divided into 6 classes. The Economic Size has been defined by the Standard Output (SO) calculated in ESU (1 ESU=1,200 Euro).

New holdings that are included in the Register of ELSTAT and in the Register of the Greek Ministry of Rural Development and Food (675 holdings) were stratified as follows:

- By administrative region (NUTS III)
- By size class of holdings: In each region (NUTS III), the crop holdings were stratified into 9 size classes, according to their size, determined by their area with crops, as follows:

Table 1: Classes of holdings' size determined by their area with crops

Classes	Area with crops in hectares
1	Less than 1 hectare
2	From 1 to less than 2 hectares
3	From 2 to less than 3 hectares
4	From 3 to less than 5 hectares
5	From 5 to less than 10 hectares
6	From 10 to less than 20 hectares
7	From 20 to less than 30 hectares
8	From 30 to less than 50 hectares

9

Equal to or greater than 50 hectares

12.1.d.5 (new) the sampling method at each stage

The sampling method can be exhaustive selection, simple random sampling, systematic sampling with equal probabilities, systematic sampling with probabilities proportional to size, etc.

Sample units within each stratum were selected using systematic random sampling.

12.1.d.6 the list and description of full coverage strata

Full coverage strata are strata with complete enumeration (all units are selected in the sample).

The following categories of holdings have been surveyed exhaustively:

- Holdings with economic size more than 38 ESU (7.713 holdings).
- Crop holdings that follow organic farming that are included in the Register of the Greek Ministry of Rural Development and Food and their size class is equal to or greater than 20 hectares (49 holdings).
- Holdings breeding ostriches, included in the Register of the ELSTAT (177 holdings).
- Livestock holdings that follow organic farming and which are included in the Register of Rural Development and Food (75 holdings).
- Vineyard holdings that are included in the Register of Rural Development and Food and their size class is equal to or greater than 5 hectares (333 holdings).
- Specialist olive tree holdings that are included in the Register of Rural Development and Food and their size class is equal to or greater than 30 hectares (210 holdings).
- Crop holdings that were included in the Register of Agricultural Holdings of the ELSTAT, for which their classes of economic size and types of farming are not specified and their size class is equal to or greater than 50 hectares (2 holdings).
- Livestock and crop holdings that were included in the Register of Agricultural Holdings of the ELSTAT (305 holdings) and their classes of economic size and types of farming were not specified.

12.1.d.7 the overall sample size, how it was determined and any allocation method used

Allocation methods can be equal allocation, proportional allocation, Neyman allocation, optimal allocation considering different costs across strata etc.

From the total sample of holdings, an initial sample of 78,036 holdings was selected from the Register of Agricultural Holding of the ELSTAT, plus 2,759 holdings from the Register of the Greek Ministry of Rural Development and Food. In addition 11,219 holdings were selected from the Register of ELSTAT as reserve sample. In total, the gross sample size accounts of 92,014 holdings and the decision for determining the sample size was based on financial criteria and on several precision criteria as follows:

- a) At country level, the relative standard error of the size of the arable land of a certain crop characteristic should be less than 5%, when the size of the land of this certain characteristic is greater than 0.5% of the total utilized agricultural area (country level).
- b) At country level, the relative standard error of the number of cattle, pigs, sheep, goats and poultry to be less than 3.0%.
- c) At regional level (NUTS II), the relative standard error of the size of the arable land of a certain crop characteristic should be less than 5%, when the size of the land of this certain characteristic is greater than 7.5% of the Region's utilized agricultural area.
- d) At regional level (NUTS II), the relative standard error of the capital livestock units of a certain kind of livestock should be less than 5%, when the capital livestock units of this certain kind of livestock exceeds 7.5% of the total capital livestock units in the region, under the condition that the certain kind of livestock in the region exceeds 5% of the certain kind of livestock at country level.

In each separate Geographical Region (NUTS II), the sample belonging to sampling strata was distributed into the strata based on the Neyman allocation. In detail, the following formula was used for the distribution of the sampling units in each separate stratum:

$$n_h = n \frac{N_h S_h}{\sum_h N_h S_h}$$

where n is the overall sample size in each region (NUTS II), n_h is the sample size at stratum h , N_h is the population (number of holdings) of the stratum h and S_h is the standard deviation of the standard output (SO) of the holdings in the stratum h .

For the crop holdings belonging to the Register of the ELSTAT and of the Greek Ministry of Rural Development and Food, in the above formula, the value of S_h is the standard deviation of the arable land of the holdings belonging to the stratum h .

12.1.d.8 sampling across time

This item refers to whether a new sample is drawn in each occasion, or a part or the whole sample is retained over all/several occasions. The latter two cases should be justified.

A new sample is drawn for every new survey conducted.

A complementary (reserve) sample was also drawn in order to replace holdings in the following cases:

- When the holding was sold/rented and merged with other holding
- When the holding had been temporarily closed down (it will be set out in no more than 6 months)
- When the holding changed location and the new location is out of the surveyed stratum.
- When the holder is unknown and/or the sampling unit has been misclassified in the agricultural sector.
- When the holder refused to give the required information (Unit non-response).

12.1.d.9 the software tool used in the sample selection

Microsoft Excel

12.1.d.10 other relevant information, if any

NA

12.1.e Use of administrative data sources

12.1.e.1 Name, legal base, time reference and (new) updating of the source

If more than one administrative data source is used, please provide this information for each of them.

Common land: Payment and Control Agency for Guidance and Guarantee Community Aid (OPEKEPE), Ministry of Rural Development and Food. OPEKEPE is the body responsible for the administration and maintenance of IACS for Greece. Data are collected on an annual basis through applications submitted by the holders.

12.1.e.2 Definition of the reporting unit (holding)

If more than one administrative data source is used, please provide this information for each of them.

The reporting unit for OPEKEPE is the farmer/holder that is the physical or legal person or group of physical or legal persons, regardless of the legal status assigned to that group and its members by national law, who practice agricultural production and whose agricultural production units are located in Greece.

12.1.e.3 The purpose(s) of the use of administrative sources

Purpose	Administrative source <i>Please specify the name of the administrative source(s) in the rows of this column. The row(s) where the name(s) of the source(s) is (are) specified indicate(s) the purpose(s) of the use of that (those) source(s).</i>
- to totally replace the survey, on all characteristics and on the whole survey population	NA

- to replace the survey on some of the characteristics and on the whole survey population. <i>Please indicate these (groups of) characteristics, the common identifiers and the method(s) of integration (record linkage algorithm).</i>	NA
- to replace the survey on all characteristics and on a part of the survey population	NA
- to replace the survey on some of the characteristics and on a part of the survey population. <i>Please indicate these (groups of) characteristics, the common identifiers and the method(s) of integration (record linkage algorithm).</i>	NA
- to build/update the (sampling) frame (used for census or for sample survey)	NA
- to pre-fill answers in the questionnaires which are then checked by farmers during the survey	NA
- to impute item/unit non-response	NA
- to validate the survey data (quality control). <i>Please indicate actions taken in case of large discrepancies</i>	NA
- to calibrate of survey estimates. <i>Please indicate the calibration variables</i>	NA
- other (<i>please specify in the next column</i>)	Common Land from the IACS register maintained by OPEKEPE. Special holdings were created to accommodate these data.

12.1.e.4 Difficulties of using administrative source(s) and measures taken

For each administrative source used, please briefly describe any difficulties and the way those difficulties were addressed. Examples of difficulties:

- *incoherence of concepts/definitions;*
- *incoherence of classification systems;*
- *different population coverage;*
- *problems creating the links between the units: the units in administrative sources do not correspond directly to the definition of required statistical units;*
- *problems creating the links between databases caused by e.g. the lack of common identifiers, obstacles related to IT issues etc.;*
- *impossibilities to establish cooperation with register owners;*
- *(too high) costs charged for the access by the register owners;*
- *problems related to data quality of the source;*
- *resistance to change caused by a general lack of trust in the quality of the source;*
- *timeliness and punctuality: the final validated data in the source may not be in time to meet statistical deadlines or may relate to a period which does not coincide with the statistical reference period;*
- *risks concerning the stability of the source to political changes etc.*

The main problem was to ascertain the correspondence between the definitions used by the administrative source and those of FSS.

Given the nature of the variable for which administrative data were used (common lands) as well as the way these were introduced in the FSS data (as special holdings) differences in population coverage, and problems related to the incoherence of the statistical units and the linking of the two databases were not considered significant.

12.1.e.5 Quality assessment of the administrative sources

*Section 12.1.e.5 should **not** be completed when administrative sources are used only for building/updating the (sampling)*

frame of a census or a sample survey . In that case, other sections of the report (sections 5.3, 12.1.c, 12.3.d) provide relevant information.

	Administrative source and assessment of errors <i>Please specify the name of the administrative source(s) in this column, along with information required for each row.</i>
-coverage:	
<p>- over-coverage <i>If the source covers more units than it should, please provide an assessment of the over-coverage rate and mention whether the out-of-scope units were excluded.</i></p>	Possibly slight over coverage, due to different thresholds, but not quantifiable due to the lack of relevant information.
<p>- under-coverage <i>If the source covers less units than it should, please provide an assessment of the extent of under-coverage (if possible) and mention if and how the missing information is derived.</i></p>	NA
<p>- misclassification <i>Please mention whether the information allows for the requested classification of units and whether there are errors in classification variables.</i></p>	NA
<p>- multiple listings <i>Please provide an assessment on units which were present more than once in the source and specify how the duplicates were eliminated.</i></p>	NA
<p>- rate of unreported events <i>If data of the System for the Identification and Registration of Bovine Animals is used, please provide an assessment of the rate of unreported events. Unreported events refer to births, deaths or loss, sales or change of owners etc. of animals, which create under – and/or over-coverage errors for the estimates of animals.</i></p>	NA
<p>- missing data (analogue to item and unit non-response errors in a survey).<i>Please provide an assessment of missing data, specify for which characteristics and how it was accounted for (e.g. by imputation).</i></p>	NA
<p>- errors in register variables (analogue to measurement errors in a survey) i.e. erroneous values for certain variables</p>	NA
<p>- processing errors. <i>Please provide an assessment. You can mention here imputation methods used, if any.</i></p>	NA
<p>- coherence (comparison to other available data) of the administrative data (ex-ante and/or ex-post)</p>	NA
<p>- other drawbacks (if any) of the use of data from the administrative source. <i>Please specify the drawbacks in the next column.</i></p>	NA

[3] See Article 2 of Regulation (EC) 1166/2008 of the European Parliament and of the Council on farm structure surveys and the survey on agricultural production methods and repealing Council Regulation (EEC) 571/88

12.2. Frequency of data collection

(new) Please indicate the frequency of data collection.

The data of the Farm Structure Survey are collected every three years.

12.3. Data collection

12.3.a Data collection modes

Please specify the data collection mode(s) used.

These can be for example:

- Telephone

The data collection is carried out through the telephone interviews, usually supported by the CATI technology.

- Face-to-face

An interviewer visits selected holdings to directly communicate with them and get the required data.

- Internet

The data collection is carried out by using questionnaires which can be completed through internet applications.

- Self-completed paper questionnaires

The data is gathered through self-completed paper questionnaires which can be collected on a spot or sent to the survey organisation by mail.

- Mixed-mode

Several modes for data collection are combined. The typical example is the survey where the telephone interviews are complemented with the face-to-face interviews for the respondents who were not reached by telephone.

The data of the FSS 2013 were collected by means of face-to-face interviews with the owners of the agricultural holdings, on the basis of a specially designed questionnaire.

The survey questionnaire was designed in such a way so as to satisfy both national and Community needs for statistical information. It covered all variables stipulated in Regulation 1166/2008 which must be analyzed, thus helping drawing the Hellenic agricultural policy.

The questionnaire was designed taking into consideration comments and observations made by the main data users (Ministry of Rural Development and Food, Ministry of Environments and Climate Change), as well as by other Divisions of ELSTAT (Division of Methodology and Organization, Division of Informatics, Division of Statistical Information and Publication, Division of National Accounts).

12.3.b Data entry modes

Please specify the data entry mode(s) used.

These can be, for example:

- Optical character recognition (OCR);
- Electronic data capture during personal interview;
- Entering the data online by the holder etc.

After the collection of the questionnaires, the data, by means of OCR (optical character reading), were entered into the electronic database. Data entry was followed by a primary visual validation in order to identify and dully correct any OCR errors.

12.3.c Measures taken to increase response rates

Please specify, for example:

- call-back strategies, written / telephone reminders, contacting respondents who have only partly completed the questionnaires;
- giving priority to more important, for example large holdings;
- taking care that the mailing list is based on up to date information;
- training staff in handling difficult respondents;
- legal actions taken on non-response.

Methods employed towards reducing the non-response rate were:

- Updating the Farm Register so as to have valid contact information
- Contacting the interviewees prior to the actual interview to ensure their presence.
- Training of the enumerators on the personal interview procedure
- Contacting non-respondents by telephone at a later date, and if possible completing the interview, especially for large holdings and holdings belonging to exhaustively surveyed strata.

For cases where the holder refused to provide information, the interviewer had instructions to insist and inform the holder about the Greek Statistical Law that obliges the surveyed person to provide the required statistical information. If the holder continued to refuse to cooperate then the interviewer had to inform the Supervisor in order to decide the proper action to be taken against the holder.

In cases in which it was impossible to collect statistical information from certain sampling units, units included in the complementary sample replaced these cases.

12.3.d Monitoring of response and non-response

The following table should be completed only in case of a sample survey or a census.

*It should **not** be completed when data are entirely taken from administrative sources. In the latter case, section 12.1.e.5 provides relevant information.*

The following table aims to collect exact information of the number of holdings in a uniform way. This information allows, among other, calculating response rates according to the definition of response rates in the Eurostat (2009) [ESS Handbook for Quality Reports](#), page 49. These definitions of the response rates are presented in the handbook for sample surveys but, as stated in the same handbook, page 57, they are also applicable to censuses.

The following table refers to the number of holdings covered by the records sent to Eurostat.

- If you send records on all surveyed holdings to Eurostat, then please include all surveyed holdings.

- If you send records on a subset of surveyed holdings to Eurostat (that, according to Regulation 1166/2008, account for 98% of the utilised agricultural area and 98% of the livestock units), then please consider only the subset of holdings transferred to Eurostat, if possible. If this is not possible, please explain and then include information concerning all holdings surveyed in the country.

This table refers to the number of holdings according to the EU definition, and, if different from the EU definition [\[4\]](#), according to the national definition. Please specify the case.

Common land holdings (special holdings created to report common land), if any, should not be included in the number of the holdings of any category below. They should be reported in section 8.1.d.4

1.	<p>Number of holdings in the population covered by the records sent to Eurostat</p> <p><i>Please note that the survey coverage of the records sent to Eurostat can be different from the national survey coverage in case very low (or no) national thresholds are applied.</i></p> <p><i>In case of a census 1=3+4+5</i></p>	79083
2.	<p>Number of holdings in the gross sample</p> <p><i>The number of holdings selected from the sampling frame to be included in the sample.</i></p> <p><i>This item should be completed <u>only</u> in case of a sample survey, in which case 2=3+4+5</i></p>	92014
3.	<p>(new) Number of ineligible holdings</p> <p><i>The number of surveyed holdings which result to be out-of-scope (the frame is not updated and the data collection reveals that some holdings e.g. fall below set thresholds during the reference period), which do not exist at the selected address, which have the activities ceased during the reference period etc.</i></p>	3789

3.1	Number of holdings with ceased activities <i>This item is a subset of 3.</i> 3.1>=3.1.1+3.1.2	3523
3.1.1	Number of holdings which definitively ceased i.e. the land is abandoned. <i>This item should be completed only if information is available.</i>	1838
3.1.2	Number of holdings with ceased activities following the change of manager <i>This item should be completed only if information is available.</i>	1685
4	(new) Number of holdings with unknown eligibility status <i>The number of surveyed holdings which could not be contacted (e.g. in a CATI survey) and for which it is not certain if they are eligible (e.g. in scope) or not.</i>	1887
5	(new) Number of eligible holdings <i>The number of surveyed holdings which are eligible</i> 5=5.1+5.2	86338
5.1	Number of non-responding holdings <i>The number of eligible holdings which:</i> - were contacted but refused to take part in the survey; - were contacted but were unable to participate in the survey for various reasons; - participated in the survey but the entire survey form cannot be used because of poor quality etc. <i>This item refers to holdings for which no data is collected (unit non-response).</i> 5.1>=5.1.1+5.1.2	7255
5.1.1	Number of non-responding holdings – re-weighted	7255
5.1.2	Number of non-responding holdings – imputed	0
5.2	Number of responding holdings <i>This item includes holdings which provided completed questionnaires, either entirely or partially.</i>	79083

12.3.e Questionnaire(s)

Please annex the questionnaire(s) used for the data collection, using the "Add file" button. If possible, please provide the questionnaire in English, French or German.

See Annex

[4] See Article 2 of Regulation (EC) 1166/2008 of the European Parliament and of the Council on farm structure surveys and the survey on agricultural production methods and repealing Council Regulation (EEC) 571/88

Annexes:

[FSS English Questionnaire](#)

[FSS Greek Questionnaire](#)

12.4. Data validation

12.4.a Edit rules/checks

Please mention edit rules applied. For example: data format checks, completeness checks, routing (skip) checks, range/outlier checks, relational checks, ratio edits, etc.

Errors in individual observations were identified and corrected during the two main phases of Processing:

- Data Processing and validation by the Regional Statistical Offices
- Quality Controls at NUTS III by the Central Service

During the Validation phase all values were checked for acceptability and consistency. The estimated gross error rate was 3 errors per questionnaire, including all types of errors from simple misspelling of a postal code or omission to fill-in a total to erroneous values being entered. The data were validated according to the following procedure:

1. Logical and completeness checks of the questionnaires in the Regional Statistical Office, in order to check their correctness and to correct any errors, if necessary. It should be noted that the external enumerators themselves had already performed such kind of checks before submitting the filled in questionnaires to the employees of the Regional Statistical Office.
2. Data entry by means of OCR and correction of the errors due to erroneous reading.
3. Validation of data after a series of checks which identified errors or notifications.
4. Checks for identifying double recordings. The questionnaires were checked in order to identify the holdings that had been enumerated twice.

During the Quality Control phase, even though performed at the NUTS III level, corrections were attempted at the holding level mostly by identifying abnormally high or low values. Such corrections were relatively seldom. At this stage, some follow-up interviews were also considered necessary, resulting in a number of questionnaires being completed by phone interviews. More specifically the survey data were compared with the results of previous Censuses and previous Structure surveys, as well as with the results of the annual statistical surveys and with data from administrative sources. (Ministry of Rural Development and Food, etc). In case where major inconsistencies were identified for a specific variable, an in-depth study and analysis were carried out in cooperation with the respective Regional Statistical Office and the Ministry of Rural Development and Food.

12.4.b Tools used for data validation

Please mention tools used.

The ABBYY FlexiCapture 10 software was used for OCR and the preliminary validation of the data. Then the data were exported for further validation in ELSTAT's database where all software tools used are developed within the Oracle system and are custom made either by the staff of ELSTAT or by external contractors.

12.4.c Level of data validation

Please mention. For example, data validation can be done at the level of the interviewer, of the supervisor, of the local collection centre, of the final collection centre.

Data validation has been performed at all levels, according to the respective time frame. Assistant supervisors and interviewers performed data quality control and initial validation during the data collection period. Supervisors and experienced personnel at the Regional and Central Offices performed the final validation of the data after all data were collected and digitized, whereas specialised staff of the Central Office performed the final quality checks before the data were submitted to Eurostat.

12.5. Data compilation

Sections 12.5.a and 12.5.b should be completed only in case of sample surveys.

12.5.a Methods for deriving the extrapolation factor (the weight)

Please give a description of the extrapolation procedures used to weight the data of the sampled holdings to the population, discussing the different steps taken, as follows:

12.5.a.1 Design weights

Please explain how design weights were obtained. In case the approach departed from the usual one that consists of taking the inverse of the inclusion probabilities, then the latter should be explained.

Design weights are defined as the inverse of the units' selection probabilities.

Design weights are defined as the inverse of the units' selection probabilities.

In the design phase of the survey an initial weight (design weight) was given to each sampling unit (holding). This initial weight was estimated as the inverse of the probability of selection. More precisely, for the holding i that belongs to stratum h the initial weight is:

$$W_h = N_h / n_h$$

where,

N_h : population size according to the data of the Register of Agricultural Holdings

n_h : number of the respondent holdings in stratum h , excluding the extra holdings derived from splitting of other holdings

12.5.a.2 Adjustment of weights for non-response

Please mention if you applied re-weighting for non-response. If yes, then the method used to determine the correction factors should be explained: reweighted Horvitz-Thompson estimator, ratio estimation, regression estimation, etc.

Please indicate if response homogeneity groups have been created.

Weights have been adjusted to account for non-response by updating the unit's selection probabilities.

For the non-response cases, the initial weights were corrected by a factor that takes into account the response rates in each separate stratum. The essence of this correction is to increase the initial weights of the respondents, so that they represent the non-respondents. More specifically, the initial weight in each stratum h is multiplied by the inverse of the response rate:

$$r_h = m_h / n_h$$

where,

m_h : is the number of respondents.

As a result, the final weight in stratum h is:

$$w'_h = w_h \cdot r_h^{-1} = \frac{N_h}{n_h} \cdot \frac{n_h}{m_h} = \frac{N_h}{m_h}$$

The re-weighting method, according to which the initial weight w_h is transformed to w'_h , amends suitably the extrapolation factors taking into consideration the response rates in each strata. This method compensates for non-responses and reduces the absolute bias in the estimation of \bar{Y} . If $\bar{y}_h = \bar{y}_{mh}$ (where \bar{y}_h and \bar{y}_{mh} are the means for respondents and non-respondents in the stratum h for the variable y), as it occurs in expectation, when the non-respondents are missing at random, then in the stratum h the bias of non-response is equal to zero. Generally, the total bias due to non-response is approximately equal to zero if either the response rates or the means of respondents do not vary between strata.

12.5.a.3 Adjustment of weights to external data sources

Please mention if you adjusted the weights to external sources and if so please describe and mention the variables used from the sources and the sources. Generally, samples are adjusted to external data sources in order to make their accuracy better. For instance, the calibration technique aims at calculating new weights which provide error-free estimates for a certain number of characteristics. If the characteristics are strongly correlated with the variables of interest, then the level of accuracy for most of the survey estimates is improved.

Non existent

12.5.a.4 Any other applied adjustment of weights

For example, extreme weights (which increase the variance of the estimates) can be trimmed.

In order to reduce the effect of over-coverage error due to closed holdings the initial extrapolating factor, in each stratum, was adjusted to compensate for the closed holdings in each stratum, using the following formula:

Adjustment factor = 1 - (Number of closed holdings in the initial sample/Initial sample)

12.5.b Formulae applied for estimation methods

Please annex the formulae applied for estimation methods, using the "Add file" button.

12.5.c Other relevant information (if any)

-

12.6. Adjustment

Non applicable

13. Comment

[Top](#)

13.a Any regional specification

Please include relevant information such as on extreme weather conditions in certain region(s) during the agricultural year (reference period), differences in methodology across regions etc.

-

13.b Possible improvements in the future

Please suggest possible improvements.

-

13.c Other annexes

Please annex any other(s) file(s), deemed as useful, using the "Add file" button.

Please indicate here the nature and purpose of the file(s).

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