# Single Integrated Metadata Structure (SIMS v2.0) (user oriented)

**Country: Greece** 

# **Compiling agency: ELSTAT**

# Domain name: Annual Agricultural Statistical Survey

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| 1.1 Contact organisation      | Hellenic Statistical Authority (ELSTAT)   |            |
| 1.2 Contact organisation unit | Agriculture, Livestock, Fishery and Environment Statistics Division / Agriculture, Livestock and Fishery Statistics Section |            |
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 2.1 Metadata last certified
 01/09/2023

 2.2 Metadata last posted
 01/09/2023

 2.3 Metadata last update
 01/09/2023

# 3. Statistical presentation

#### 3.1 Data description

The Annual Agricultural Survey aims to collect data that are categorized into four broad groups:

- Agriculture
- Livestock
- Agricultural Machinery
- Fisheries Coastal and Inland Waters

#### 3.2 Classification system

The Annual Agricultural Survey geographical classification follows the Regulation (EC) No. 1059/2003 of the European Parliament and of the Council of 26 May 2003 on the establishment of a common classification <u>http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2003:154:0001:0041:EN:PDF</u>. The results of the Annual Agricultural Survey are published in relevant press releases at NUTS 0 level, while analytical data are accessible on demand to users after the submission of a relevant application, at the NUTS 3 (Regional Units) level of territorial units for statistics (NUTS).

#### 3.3 Sector coverage

The survey covers all sectors of the rural economy (agriculture, livestock, inland fisheries and coastal, agricultural machinery) of Greece.

#### 3.4 Statistical concepts and definitions

More specifically, the main objective of the Annual Agricultural Survey, is to provide statistical information on areas and the country's production harvested in the following domains: a) Agriculture:

- a) Agriculture:
  - i. *"Agricultural land"*: is defined as the coverage of the land of a Community with vegetation that originated from anthropogenic intervention either on the reference year of the survey or historically.
  - ii. Arable crops, conventional and organic

"Arable Crops": refer to areas cultivated with crops such as cereals, maize, pulses etc. and their corresponding production.

iii. Horticulture, conventional and organic, including greenhouse crops and their production.

"*Horticulture Crops*": refer to the areas cultivated with horticultural crops such as tomatoes, eggplants, etc. external fields and the production.

"Greenhouse horticultural crops": refer to the areas cultivated with horticultural plants in greenhouses and their production.

- iv. Horticultural land, greenhouses, commercial flower gardens and nurseries (land)
  - "*Horticultural land*" refers to the net area (without secondary/successive horticulture crops) of land cultivated with horticulture crops.

"Greenhouses": refer to special steel constructions, aluminum or wood cover plastic or glass, used to create controlled micro - climatic growing conditions (temperature, lighting, ventilation, etc.), nutrition (fertilizer application) and plant protection (pesticide application) in order to achieve higher yields. For the purposes of the Annual Agricultural Survey, Greenhouse areas include all greenhouse types (spatial type, simple plastic covered constructions or standardized greenhouses with glass cover) for horticulture and floriculture products.

"*Commercial flower gardens*" refer to the surface area of flower garden commercial cultivation of ornamental plants for the production of flowers, bulbs and ornamental shrubs.

"*Nurseries*" refer to areas under young woody plants cultivated in order to adapt to the natural environment for the purpose of transplanting to final planting position, after their initial development in greenhouse controlled

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climatic conditions or in plant material propagating laboratories. For the purposes of the Annual Agricultural Survey nurseries are subdivided into four categories: (1) Fruit trees nurseries (2) Forest trees nurseries for transplanting, (3) Ornamental plants nurseries, (4) American vines (stock nurseries - plantations rooted cuttings) nurseries.

v. Tree crops, conventional and organic

"*Tree Crops*": refer to the cultivated areas of tree plantations and their production. Additionally the annual Agricultural Survey collects data regarding (1) the number of the trees in normal plantations, (2) the number scattered trees, and (3) the trees that in the reference year of the survey are of productive age.

vi. Vines, conventional and organic

"Wine crops": refer to the of perennial crops areas under wine, table and raisin vineyards and their respective production

vii. Energy Crops

"Energy crops": refer to areas under arable crops intended for energy production (biofuels).

viii. Grassland and Pasture

"*Permanent meadows and pastures*" (rough grazing not included): refer to the that are not included in the plant rotation circle and used for permanent production of green forage crops, whether sown or wild, for more than five (5) years, whether they are grazed or harvested for hay or silage

"*Rough grazing*": refer to areas with native grass, they usually are limited fertility soil zones (poor pastures), which generally do not improve with fertilizers, plowing, reseeding or drainage and used for animal grazing.

ix. Fallow land

"*Fallow*": Refers to lands that remain uncultivated for a period of 1-5 years. They include lands that remain in good agricultural and environmental condition, kept fallow and are eligible for the payment of subsidies.

x. Olive oil and Must (conventional and organic production)

"Olive oil" refers to the quantity produced by the olive – mills of the Municipal Unity area, regardless of origin of the olives.

"Organic or biological farming" means the plants produced by using mild plant cultivation techniques without fertilizers and pesticides. These farming practices comply with certain standards and rules established by the EU regulations on "organic farming".

#### b) Livestock:

- i. number of animals of any age,
- ii. milk production
- iii. meat production

iv. production of derived livestock products (cheese, honey, eggs, etc.).

- c) Agricultural Machinery
- d) Fisheries and particular / her
  - i. inland
  - ii. nominal catch,
  - iii. number of motor vessels,
  - iv. number of employees
- e) Coastal marine fisheries
  - i. nominal catch,
  - ii. number of motor vessels,
  - iii. number of employees.

#### 3.5 Statistical unit

#### As statistical unit is regarded:

a) in Agriculture: the areas of land included within the administrative boundaries of each Municipal Unity / Municipality of Greece.

b) in Livestock: the number of existing animals by species in the reference year of the survey within the administrative boundaries of each Municipal Unit / Municipality of Greece.

c) in Agricultural Machinery: the number of agricultural machinery in the reference year of the survey within the administrative boundaries of each Municipal Unit / Municipality of Greece.

d) in Fisheries: the number of vessels is in the reference year of the survey within the administrative boundaries of each Municipal Unit / Municipality of Greece.

For the purposes of the Annual Agricultural Survey it is stated that the "Municipal Unity" is a spatial and administrative level in the administrative division of Greece resulting from the unification and elimination of preexisting local communities under Law 3852 / 2010 "New architecture of Government and decentralized Administration - kallikratis plan". It is a self-governing institution and as a territorial entity is a subdivision of the Municipality. According to this Law, the Municipalities can be structured or not in several Municipal Units. Where a Municipality is not divided into several Municipal Units, but a Municipal Unit and the Municipality coincide and therefore the latter is a single administrative and territorial entity, then the statistical unit in the reference year of the survey is considered to be the Municipality. In the opposite case where a municipality is divided into several Municipal Unity.

#### 3.6 Statistical population

1,036 Municipal Units to 325 municipalities, geographically covering the whole country. Mount Athos and Central Athens are exempt from the Annual Agricultural Survey.

#### 3.7 Reference area

Insofar as refered to the publication of the results, the Annual Agricultural Survey covers geographically the whole of Greek territory. The collection of data from reference year 2014 onwards, although it will continue to be conducted at community level (LAU II), data processing and checks will be conducted at Municipality / Municipal unit (LAU I) level in accordance with the Local Administrative Units system (LAU) as established by Eurostat in order for lower levels of territorial / administrative units to be in coordination with Regulation (EC) No. 1059/2003 of the European Parliament and of the Council of 26 May 2003 on the establishment of a common classification of territorial units for statistics (NUTS)

http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2003:154:0001:0041:EN:PDF

#### 3.8 Time coverage

The Annual Agricultural Survey produce statistics on an annual basis from 1961.

Results of the survey at national level for the period from 2010 to 2014, are available in electronic form on the website of ELSTAT in the form of published press releases (pdf files) and from 2001 until 2010 in excel tables format, at: <a href="http://www.statistics.gr/en/statistics/-/publication/SPG06/2014">http://www.statistics.gr/en/statistics/-/publication/SPG06/2014</a>

Analytical data for all reference years of the time coverage, can be obtained by users after submitting a relevant request to Hellenic Statistical Authority, Statistical Information and Publications Division, Piraeus 46 & Eponiton, PO 80 847, 18510, Piraeus (tel. (30) 213-1352022, fax: (30) 213-1352312, or electronically via http://www.statistics.gr/en/statistical-data-request

#### 3.9 Base period

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### 4. Unit of measure

a) Agriculture

- Areas: In Stremmas (=0.1 ha) / (= 1,000m<sup>2</sup>)
- Production: In kilograms (Kg).
- Trees: In number of trees
- Firewood Production: In tons (Tn)
- Losses from weather conditions or natural disasters: In Stremma (=0.1 ha), (= 1,000m<sup>2</sup>)

b) Livestock

- Livestock: In number of animals
- Production of main livestock products (milk, carcass meat): In kilograms (Kg)
- Production of livestock production: In kilograms (Kg)
- Eggs: In a number of eggs
- Damage from diseases, climatic conditions or natural disasters: In number of animals

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c) Agricultural Equipment: In number of agricultural machinery

d) Fisheries

- Fishing Boats: In number of fishing vessels
- Fishermen: In number of fishermen
- Catch Quantity: In kilograms (Kg)

#### **5.** Reference period

From 1<sup>st</sup> of January to the 31<sup>st</sup> of December of each year.

# 6. Institutional mandate

#### 6.1 Legal acts and other agreements

The legal framework concerning the organization and operation of ELSTAT is as follows:

- Law 3832/2010 (Government Gazette No 38, Issue A): "Hellenic Statistical System Establishment of the Hellenic Statistical Authority (ELSTAT) as an Independent OAuthority", as amended and in force.
- Regulation on the Operation and Administration of the Hellenic Statistical Authority (ELSTAT), 2012, (Government Gazette No 2390, Issue B, 28-8-2012).
- Regulation (EC) No 223/2009 of the European Parliament and of the Council, on the European statistics (Official Journal of the European Union L 87/164).
- Article 14 of the Law 3470/2006 (Government Gazette No 132, Issue A): "National Export Council, tax regulations and other provisions".
- Article 3, paragraph 1c, of the Law 3448/2006 (Government Gazette No 57, Issue A): "For the further use of information coming from the public sector and the settlement of matters falling within the responsibility of the Ministry of Interior, Public Administration and Decentralization".
- European Statistics Code of Practice, adopted by the Statistical Programme Committee on 24 February 2005 and promulgated in the Commission Recommendation of 25 May 2005 on the independence, integrity and accountability of the national and Community statistical Authorities, after its revision, which was adopted on 28 September 2011 by the European Statistical System Committee.
- Presidential Decree 226/2000 (Government Gazette No 195, Issue A): "Organization of the General Secretariat of the National Statistical Service of Greece".
- Articles 4, 12, 13, 14, 15 and 16 of the Law 2392/1996 (Government Gazette No 60, Issue A): "Access of the General Secretariat of the National Statistical Service of Greece to administrative sources and administrative files, Statistical Confidentiality Committee, settlement of matters concerning the conduct of censuses and statistical works, as well as of matters of the General Secretariat of the National Statistical Service of Greece".

The Legal Framework is detailed in the following link: http://www.statistics.gr/en/legal-framework

6.2 Data sharing

# 7. Confidentiality

#### 7.1 Confidentiality - policy

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.

http://www.statistics.gr/en/statistical-confidentiality?inheritRedirect=true

#### 7.2 Confidentiality - data treatment

ELSTAT protects and does not disseminate data it has obtained or it has access to, which enable the direct or indirect

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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.

# 8. Release policy

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#### 8.1 Release calendar

- The release calendar fully meets legal requirements concerning the deadlines for the release of data by:
- meeting the legal and contract requirements concerning the deadlines for the transmission of the survey results,
- ensuring the longest possible time for data checking,
- ensuring additional time in case it is needed.

Regarding contractual obligations of transmitting the results of the Annual Agricultural Survey, no legal obligation deriving from an International, European or National Regulatory framework for transmitting data of the Annual Agricultural Survey to International or European Institutions. Survey results are published under the ELSTAT annual announcements calendar <u>http://www.statistics.gr/en/calendar?inheritRedirect=true</u> and it is simultaneously available to both users and to European and International Institutions.

Users may apply for additional information after submitting a relevant request to Hellenic Statistical Authority, Statistical Information and Publications Division, Piraeus 46 & Eponiton, P.O. 80 847, 18510, Piraeus (tel. (30) 213-1352022, fax: (30) 213-1352312, or electronically via <a href="http://www.statistics.gr/en/statistical-data-request">http://www.statistics.gr/en/statistical-data-request</a>

#### 8.2 Release calendar access

The annual announcements calendar of ELSTAT are accessible via <a href="http://www.statistics.gr/en/calendar">http://www.statistics.gr/en/calendar</a>

#### 8.3 User access

The results of the Annual Agricultural Research are simultaneously accessible to all interested parties at <a href="http://www.statistics.gr/en/statistics/-/publication/SPG06/-">http://www.statistics.gr/en/statistics/-/publication/SPG06/-</a>

#### 9. Frequency of dissemination

Annual

# **10.** Accessibility and clarity

#### 10.1 News release

Annual Press Release publication of the results of the Annual Agricultural Survey. The Press Releases are available in electronic form at the website <u>http://www.statistics.gr/en/statistics/-/publication/SPG06/-</u>.

#### **10.2** Publications

The main results of the Annual Agricultural Survey are published in the electronic publications under the general title "Greece in figures" accessible via the website of ELSTAT <u>http://www.statistics.gr/en/greece-in-figures</u>.

#### 10.3 On-line database

#### 10.3.1 Data tables - consultations

Tabulated analytical data on the geographical level of Region and Regional Unity are available through the website of ELSTAT <u>http://www.statistics.gr/en/statistics/-/publication/SPG06/-</u>.

#### 10.4 Micro-data access

Access to micro-data is subject to the confidentiality policy of ELSTAT. Provided that issues of confidentiality does not emerge, 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, or electronically via http://www.statistics.gr/en/statistical-data-request

#### 10.5 Other

#### 10.5.1 Metadata – consultations

Available at : <u>http://dlib.statistics.gr/portal/page/portal/ESYE/</u>

#### **10.6 Documentation on methodology**

The principles of the documentation on the methodology and the dissemination mode of the results of the Annual Agricultural Survey are laid down in a relevant Decision issued by ELSTAT, taking into consideration international practices, guidelines and rules set out by Eurostat on the specific statistical theme:

- 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 <u>http://ec.europa.eu/eurostat/documents/3859598/5921861/KS-32-11-955-EN.PDF</u>
- Quality Assurance Framework of the European Statistical System <u>http://ec.europa.eu/eurostat/documents/64157/4392716/qaf\_2012-en.pdf/8bcff303-68da-43d9-aa7d-325a5bf7fb42</u>
- ESS Quality Glossary <u>http://ec.europa.eu/eurostat/ramon/coded\_files/ESS\_Quality\_Glossary.pdf</u>
- ESS Handbook for Quality Reports <u>http://ec.europa.eu/eurostat/documents/3859598/6651706/KS-GQ-15-003-EN-</u>

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 Principles Governing International Statistical Activities <u>http://unstats.un.org/unsd/methods/statorg/Principles\_stat\_activities/principles\_stat\_activities.pdf</u>

A brief Methodological Report on Annual Agricultural Survey (cumulative 1991 onwards) is available at: <u>http://www.statistics.gr/en/statistics/-/publication/SPG06/-</u>

#### <u>10.6.1 Metadata completeness – rate</u>

100%

#### **10.7 Quality documentation**

According to the provisions of paragraph 10.1 Documentation on methodology the following quality reports are available at ELSTAT's website:

a) Summary Quality Report for users, Annual Agricultural Survey:

b) Single Integrated Metadata Structure (SIMS v2.0), Annual Agricultural Survey, Reference Year 2015, Greece, available at: <u>http://www.statistics.gr/en/statistics/-/publication/SPG06/-</u>

# **11.** Quality management

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#### 11.1 Quality assurance

The Annual Agricultural Survey 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.

The Quality Policy followed by ELSTAT is available at: <u>http://www.statistics.gr/documents/20181/2571f853-1e37-46da-9387-595bbe2a162b</u>

Regarding the design of the questionnaire, the frequency of the survey and the type of the collected data the Annual Agricultural Survey follows the quality standards laid down by Eurostat and ELSTAT in the relative legal framework. The collected questionnaires undergo completeness and quality checks as regards the information they contain. The final tables to be published are both checked by the Agriculture, Livestock, Fishery and Environment Statistics Division and the Methodology, Quality Management and International Relations Division of ELSTAT.

Quality is assured (a) by training both statistical correspondents who conduct Survey's data collection and the competent employees of ELSTAT's decentralized Statistical Services of the Regional Unities, who are responsible for carrying out initial checks on the completeness and correctness of questionnaires, (b) by publishing relative detailed instructions, (c) by performing multiple controls on data (completeness, correctness, data processing, quality controls) in order to identify non-sampling errors and (d) by contacting mainly the Heads of Regional Statistical Units (R.S.U's) of ELSTAT for solving identified research problems and providing further clarifications in cases where errors are identified. Finally, both tabulated analytical data and results presented in the Press Release are thoroughly checked before their announcement.

#### 11.2 Quality assessment

Produced results are of high quality since all the relevant rules of identifying and correcting errors are implemented (logical controls, checks for completeness and correctness of questionnaire filling in, controls for outliers and irregular variations, etc.). In case that problems are identified, the appropriate corrections are applied in cooperation with the competent employees of the Statistical Services of the Regional Unities, unless changes are confirmed.

#### **12.** Relevance

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#### 12.1 User needs

Basic users of the Annual Agricultural Survey are the Ministry of Rural Development and Food and through the Ministry, Eurostat, as well as Central Government, Local Government, Enterprises, Chambers, Universities, Researchers, Students, etc.

#### 12.2 User satisfaction

The Library of ELSTAT conducts a user satisfaction survey, recording users' needs and the level of their satisfaction. For the needs of the Greek users, ELSTAT conducts a user satisfaction survey. The results of this survey are announced on the website of ELSTAT. The results of the user satisfaction survey are available at:

http://www.statistics.gr/en/user-satisfaction-survey.

Moreover ELSTAT, since 2010, has established the organization of user conferences. In these conferences, representatives of institutions of public and private sector and of educational and research institutions participate. The user conferences provide an important opportunity for ELSTAT to gather comments and suggestions from users of statistics on the dissemination of statistical information, access to statistics from users and gaps in the produced statistics. The conclusions of the above conferences, as well as the results of the user satisfaction survey that is conducted by ELSTAT, constitute a very useful background for the compilation of multi-annual and annual statistical programs.

Information on the user conferences of ELSTAT are available at: http://www.statistics.gr/en/user-conference

#### 12.3 Data completeness

Annual Agricultural Survey covers all the variables that derive from national needs

# **13.** Accuracy and reliability

# 13.1 Overall accuracy

Annual Agricultural Survey is a census type survey covering the total of the a) agricultural land and production, b) livestock (number of animals and production), c) agricultural machinery and d) fishing fleet under 20hp and catches (inshore and inland fishing) in 325 municipalities consisted of 1,036 Municipal Unities that geographically coincides with the whole country.

The main types of errors occur during data processing and data logical and quality controls checking and refer firstly to the occurance of outliers and extreme values and secondly to missing values owing to some degree of undercover due to lack of sufficient number of statistical correspondents in some municipal units / municipalities. Nevertheless, the cover percentage reaches the level of 99%.

#### 13.2 Sampling error

Annual Agricultural Survey is a census type survey. Therefore sampling errors do not exist.

# 13.3 Non-sampling error

The methodology of the survey for the reference year 2014 onwards shifted drastically compared to previous years. To the end, and in the framework of raising the degree of data quality and based on the reference year's 2014 survey design for conducting the Annual Agricultural survey, the choise of using outsourced private partners – researchers, obliged to be holders of academic degrees (diploma, Msc., Phd.) with agronomic or geotechnical specialty from Greek or foreign University Institutes, for conducting the collection and initial data quality controls, was activated. Main sources of data collection for private statistical correspondents in this context are:

(a) Administrative sources

- Rural Economy and Veterinary Directorates of the Regional 2<sup>nd</sup> Degree Self-Government Authorities (NUTS II Level),
- Agriculture Departments of the Municipalities (2<sup>nd</sup> Degree Self-Government Authorities NUTS I Level),
- Payments Organisation Community Aid Guidance and Guarantee Fund (OPEKEPE) of the Ministry of Agriculture and Food, on land areas
- Greek Agricultural Insurance Organisation (ELGA), on losses of cultivated land and livestock,
- (b) Thematic agricultural assosiations in the headquarters of the Regional Sections of regions,
- (c) Farm holders within the limits of each Municipal Unit.

The explanatory basis of using multiple sources of statistical data lies from one side on the need for comparable data and on the other, to achieve the highest degree of administrative burden reduction as well as to reduce the potential farmers' non-response rate in providing quantitative information for the needs of the survey.

#### <u>a. Unit non – response</u>

The survey is census and its statistical unit is the geographical level of the Municipal Unity. Accordingly, data collection is not performed at a farm unit level. Therefore, there is no unit non-response error.

#### b. Item non - response

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There are two types of non-response errors: Errors due, firstly, the refusal or response avoidance of public services or farmers or thematic partnership in providing statistical information and secondly, errors resulting from incomplete filling of the questionnaire.

In the first case, the outsourced private partners – researhers initially come in contact with the aforementioned RSU of ELSTAT, secondly with farm and livestock owners and thirdly with thematic rural assosiations. In cases where the above did not provide with relevant information, the outsourced private partners – researhers were instructed to persist and to inform that under Greek Statistical Law holders of the relevant statistical information are obliged to provide them with the relevant information. Nevertheless, if the holders of the relevant information not provide with relevant statistical data, the correspondents had to inform the competent Head of the RSU of ELSTAT to decide on further action.

In the second case, either the competent head of the RSU of ELSTAT or the head of the central office ELSTAT., communicates with the outsourced private partner – researcher for the proper completion of the questionnaire and provides relevant recommendations, and instructions. In cases where the statistical information is impossible, mainly due to lack of outsourced private partners – researchers in certain regions and simultaneous lack of staff of the Regional Unity Statistical Offices of ELSTAT to assist in the collection of data, imputation was chosen.

# 13.3.1 Coverage error

Coverage errors are minimal. In the few cases in which the relevant statistical information was impossible to be obtained, this was due to on one hand to the lack of outsourced private partners – researchers on specific Municipal Units owing to the lack of demand for participation in the conduct of the survey and on the other, the simultaneous lack of staff at the RSU offices of ELSTAT who would potentially provide with assistance in data collection.

To address this issue the options identified as optimal were to ask the provision of assistance from the employees of the RSU Offices of ELSTAT on data collection and in the case the above option could not be implemented, as a last resort option, was to implement the proper imputation method.

# 13.3.1.1 Over-coverage – rate

Non existent

13.3.1.2 Common units – proportion

Non existent

#### 13.3.2 Measurement error

Non existent

#### 13.3.3 Processing error

As processing errors are defined as errors arising from the moment of data collection until they are available for further analysis and they usually are codification errors, data entry etc.

To minimize these errors, the relative data are subject to computerized control both by the officials of the RSU of ELSTAT as well as by the employee responsible for the survey at the Central Service of ELSTAT.

At second stage the questionnaire is subject to quality controls by the staff of the Agriculture, Fisheries and Aquaculture Statistics Section of ELSTAT. If during quality controls, changes are high compared with the previous year, communication with either the relevant Head of the RSU of ELSTAT or the outsourced private partner – researcher is taking place in order for clarifications to be provided.

#### 13.3.4 Model assumption error

Non existent

# **14.** Timeliness and punctuality

#### 14.1 Timeliness

Provisional data on areas are available in the same reference year of the data and provisional data on production are available three months after the reference year of the data. Final data are available ten months after the reference year of the data.

#### 14.2 Punctuality

The results of the Annual Agricultural Survey are produced strictly within the deadlines specified in the Press Release Calendar (<u>http://www.statistics.gr/calendar</u>).

# **15.** Coherence and comparability

# 15.1 Comparability - geographical

# 15.1.1 Assymetry for mirror flows statistics – coefficient

# Not implemented

#### 15.2 Comparability over time

All variables of the Annual Agricultural Survey are comparable over time, since common definitions of variables and common data processing procedures are applied. Rules that determine Survey's coverage have not been changed, and definitions and / or the reference period and / or the measured characteristics remain constant over time.

For the purpose of achieving comparability over time, time series of common variables are produced for periods from 5 to 7 years for geographical level NUTS II (Regions). For Greece, the sub-national level of the Region is considered the most appropriate level for analyzing time series of common variables over time.

In cases where significant changes between data for two consecutive years are identified, further controls are performed in order to determine data accuracy.

#### 15.3 Coherence cross-domain

For 2021 the Annual Agricultural Survey results show a high degree of coherence and comparability with those of the Farm Structure Survey (FSS) and Livestock and Crop Capital surveys of ELSTAT, as well as with the results from other official bodies of the ELSS, such as OPEKEPE and the Hellenic Ministry of Agricultural Development and Food.

#### 15.3.1 Coherence – sub annual and annual statistics

Coherence and comparability of the results between the aforementioned surveys take place on annual basis

# 15.3.2 Coherence – National Accounts

The National Accounts Division of ELSTAT is a main user of the results of the survey.

#### 15.4 Coherence - internal

There is a high degree of coherence and coherence between specific survey variables.

#### 16. Cost and burden

The cost of the Annual Agricultural Survey for the year 2021 amounted to €455,568. The administrative cost to citizens is practically non – existend, due to the fact that the main sources of data are administrative.

#### **17.** Data revision

#### 17.1 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. http://www.statistics.gr/documents/20181/a49dca9a-dacf-4b52-b5df-b156216cb354

#### **17.2** Revision practice

The released data are final and have been validated by ELSTAT. However, in cases where error/errors in the collected data are detected and determined on a later stage, then data in the relevant tables are revised following the provisions of the Revision Policy instructions mentioned above.

#### **18.** Statistical processing

#### 18.1 Source data

The Annual Agricultural Survey collects quantitative and continuous data for all cultivated areas and production of plant capital and livestock, for fish production of coastal and inland fisheries and the number of agricultural machinery on each reference year of the survey, within the geographical limits of Municipal Unity / Municipality of Greece. More specifically, it collects and provides statistical information on:

a) Agriculture

 total cultivated, irrigated and biological (organic) areas of land and production of arable, horticulture tree, energy and vine crops,

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- number of of trees, all the land of meadows, pastures, greenhouses, nurseries and seedbeds,
- production of olive oil, grape and firewood,
- land and production damaged due to various causes.
- b) Livestock
  - livestock i.e. number of animals existing and that were born during the reference year
  - production of livestock products
  - number of dairy animals and milk production
  - number of animals slaughtered and meat production,
  - production of derived livestock products (eg honey, eggs, etc.).
- c) Agricultural Machinery
  - number of agricultural machinery used in crop and animal production
- d) Fisheries
  - total fishing inshore fishing fleet (<20hp) and inland fishing</li>
  - total persons employed in fisheries independently of employment relationship
  - total nominal catch coastal fishing and inland fishing

Data collection is performed through census type survey methodology and focuses on the data acquisition sources:

a) Administrative sources

- Rural Economy and Veterinary Directorates of the Regional Authorities
- Agriculture Departments of the Municipalities,
- Payments Organisation Community Aid Guidance and Guarantee Fund (OPEKEPE) of the Ministry of Agriculture and Food, on land areas
- Greek Agricultural Insurance Organisation (ELGA), on losses of cultivated land and livestock,

b) Thematic agricultural assosiations in the headquarters of the Regional Sections of regions,

c) Farm holders within the limits of each Municipal Unit.

# 18.2 Frequency of data collection

Annual

#### 18.3 Data collection

The questionnaire of the Annual Agricultural Survey is designed to meet the national requirements for statistical information covering all plant and animal production variables, and the number of agricultural machinery and production, fishing fleet (<20hp) and fisheries personnel (coastal and inland) of the country.

From 2014 onwards the collection of data and initial data quality controls, is performed by outsourced private partners – researhers obliged to be holders of academic degrees (diploma, Msc., Phd.) with agronomic or geotechnical specialty from Greek or foreign University Institutes, with the provisions of Articles 7 and 8 of Chapter 2 of the Rules of Operation and Management of the Greek Statistics authority (ELSTAT), the year 2012 (Official Gazette 2390 / vol.B / 08.28.2012), to enhance the quality of data collection. Moreover, the former imprinted questionnaire was replaced by an electronic one (excel workbooks), thus satisfying the need for faster data acquisition, easier controls of possible errors on the recorded data and the reduction of administrative burden on the Heads of RSU's of ELSTAT, who are responsible for completeness and correctness checks. The aim of this transition was to increase drastically both the level of efficiency of the collection – control system and the total reliability of the survey results.

The electronic questionnaire was designed by the Agriculture, Livestock and Fishery Statistics Section of the Agriculture, Livestock, Fishery and Environment Statistics Division of ELSTAT with the assistance of the Directorate of IT executives of ELSTAT aiming at the remedy of two basic needs: on the one hand to follow the recording of data in the spatial level of Municipality / Municipal Unity which from the year 2014 onwards is the statistical unit of the survey, replacing the spatial level of the Community which was repealed under N.3852 / 2010 "New Architecture of Local Government and decentralized Administration - kallikratis plan" (Government Gazette Issue a 87 / 07-06-2010), but also to remedy the need, the data that the outsourced private partners – researhers collected on the community level, to be directly aggregated and automatically reflected in the level of Municipal Unit or Municipality, so as to no excess burden occured in the performance of their duties.

Prior to the commencing the data collection itself, the outsourced private partners – researhers entrusted with the respective Municipal Units / Municipalities after their selection, (which is based on objective criteria and a procedure

in line with the national legal framework to carry out the Annual Agricultural Survey), must participate in training sessions conducted, depending on the Regional Unity, either at the Central Service of ELSTAT or at the RSU's of ELSTAT, which indulge in practical applications such as the operation of workbooks (excel), and the operation of the web application (web application).

# Methodology for data collection

Data collection is implemented with the completion of the aforementioned electronic questionnaire (excel) by the outsourced private partners – researchers in the limits of Municipal Units assigned to them, after visiting relative public services mentioned above, thematic rural assosiations if any, and finally farmers requesting the survey data by the end of the year following the reference year of the survey.

When the data are collected from some or all of the above sources, the statistical correspondent must proceed to the comparison of the data collected with other sources in order to note any major deviations. In this case they must contact the Head of the RSU of ELSTAT in order to receive appropriate directions.

After collecting and comparing the data the statistical correspondent delivers the completed workbook (excel) to the Head of the RSU of ELSTAT, in order the latter to carry out the initial checks for completeness and correctness of the survey. If problems arise at this stage, the Head of the RSU of ELSTAT invites the outsourced private partners – researchers to implement appropriate corrections.

Once the above checks are completed, the Head of the RSU of ELSTAT sends the e-questionnaire electronically to the headquarters of ELSTAT.

The IT Division of ELSTAT after the validation of completeness of the relative equestionnaires performed by the Agriculture, Livestock, Fishery and Environment Statistics Division, transfers the data in the central database of the Integrated IT System of ELSTAT, according to the statistical data management security protocols.

## 18.4 Data validation

After the confirmation by the Informatics Division of ELSTAT that all data of the Annual Agricultural Survey are received from the statistical correspondents, the competent employees of the Agriculture, Livestock and Fishery Statistics Section proceed to data processing controls, which consist of a series of logical controls and cross checks in order to identify potential non sampling errors caused by errors in data entry, processing etc. Errors identified in this stage are corrected immediately.

The completion of processing controls signifies the beginning of quality controls, which aim at identifying extreme values/outliers, irregular variations of time series, significant changes in the values of variables (e.g. area, production, yield, etc.) at the level of Regional Unity and Municipal Unity/Municipality and if necessary at Local Community. In cases where controls reveal possible errors relevant questions are submitted to the competent RSU's of ELSTAT, which in turn contact the statistical correspondent in order to verify the changes.

Depending on the response of the RSU's of ELSTAT concerning the aforementioned questions, changes are either confirmed and accepted or errors are identified and confirmed. In the second case, the corrections are made by employees either of the RSU's of ELSTAT or Central Service of ELSTAT.

Following the correction of the above mentioned errors, data along with the justification of significant changes in values between two subsequent years are transmitted to the Methodology, Quality Management and International Relations Division of ELSTAT for the final controls. In cases where Methodology, Quality Management and International Relations Division considers that further clarifications are necessary, a document is addressed to the Agriculture, Livestock, Fishery and Environment Statistics Division, which in turn provides for further technical or scientific justifications.

When the provided clarifications are considered adequate or there is no need for further justifications, the Agriculture, Livestock, Fishery and Environment Statistics Division of ELSTAT proceeds to the publication of the Press Release of the Annual Agricultural Survey, in which data are presented for the entire Greek territory.

#### 18.5 Data compilation

A set of analytical tables containing data referred to territorial and productive data (areas, production, number of animals, number of machines, etc.) is compiled at National (NUTS 0), Regional (NUTS II) level. In particular:

a) for Agriculture at Regional level per Regional Unity:

- on land and arable production
- on land and production of vegetable crops
- on land, number of trees and production of tree crops
- on land and vine crops production and raisin
- on irrigated land per crop category
- on land classes per crop category

on production of olive oil, grape and firewood

b) For Livestock at Regional level per Regional Unity:

- Number of animals existed, born and milked by category (cattle, sheep, goats, poultry)
- Production of primary livestock products
- Number of heads and weight of meat per animal species slaughtered for meat production
- Milk production per animal species
- Production of other animal products (eg honey, eggs, skins, etc.)

c) For agricultural machinery, the number of machines that were at Regional Unity

d) Fisheries at Regional level per Regional Unity

- The number of coastal fishing and inland fishing
- Number of motor fishing boats (<20hp) and rowing boats coastal fishing and inland fishing</li>
- Quantities of fish caught by inshore and inland fishing

The published type the Annual Agricultural Research bulletins are available at: <u>http://www.statistics.gr/el/statistics/-</u>/publication/SPG06/-

18.5.1 Imputation – rate

4.5%

# 18.6 Adjustment

18.6.1 Seasonal adjustment

Not implemented

19. Comment

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