Single Integrated Metadata Structure (SIMS v2.0)

Country: Greece

Compiling agency: ELSTAT

Domain name: Input and Output Price Indices in Agriculture – Livestock (Agricultural Price Indices-API)

ELSTAT metadata

Reference metadata

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1. Contact	Top
1.1 Contact organisation	Hellenic Statistical Authority (ELSTAT)
1.2 Contact organisation unit	Economic and Short-term Indices Division / Wholesale Prices and Price Indices Section
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2. Metadata update	
2.1 Metadata last certified	14/5/2019
2.2 Metadata last posted	14/5/2019
2.3 Metadata last update	14/5/2019

3. Statistical presentation	

3.1 Data description

The data refer to the relative change in the prices received by the producers in the agricultural – livestock sector from the sale of their products (outputs), as well as to the change in the prices paid by them for the purchase of the means and services used in the production process (inputs). The data are not presented by geographical breakdown. The data are compiled on a monthly basis and are presented as indices and percentage changes of the indices. The agricultural price indices are compiled on a monthly basis and are released as follows:

- Output Price Index, with base year 2015=100.0

- Input Price Index, with base year 2015=100.0

- Annual changes

- Monthly changes

3.2 Classification system

In compliance with common methodology implemented by all EU Member States and Eurostat, the classification used for the groups of products in the Agricultural Price Indices (API) is the same with the classification used in the Economic Accounts for Agriculture (EAA).

3.3 Sector coverage

The Input and Output Price Indices cover the transactions for products and services in the agriculture and livestock sectors. Furthermore, the transactions for the olive oil and must-wine are also covered -even though such transactions are included in manufacturing- when their production-manufacturing process takes place at the level of agricultural unit, thus considered as an activity of the agricultural sector.

3.4 Statistical concepts and definitions

The output price index is a monthly index and it consists of the crop output index and the animal output index. For the output price index, the prices collected are the market prices of the products, which are defined as the prices received by the producer without the deduction of taxes or levies (except deductible VAT) and without the inclusion of subsidies.

The input price index is a monthly index, which is compiled on the basis of the aggregation of the price indices of the groups of intermediate consumption goods and of the fixed capital formation goods. The collected prices refer to the prices paid by the producers to buy the products and services they need for their agricultural and livestock production, and they do not include VAT and transport expenses.

Seasonality influences agricultural and livestock production and as a result some products are not available in the market every month of a calendar year. Therefore, the annual weighting coefficients are distributed only over those months when the products are available in the market.
For the calculation of the weighting coefficients of the output price index, used the production value of the products in the base year 2015, while, for the weighting coefficients of the input price index, calculated of the expenditures of goods and services in the base year 2015, with data compiled from the Economic Accounts for Agriculture (EAA) for 2015.

3.5 Statistical unit

The sampling units for the survey on inputs are the enterprises providing the necessary means for the production process and for the survey on outputs, the sampling units are the producers who produce the surveyed products.

3.6 Statistical population

The statistical population is the agricultural cooperatives, which collect the agricultural products, as well as the commercial and industrial enterprises, which buy the products directly from the producers. Among the statistical population, prices are collected form selected samples of enterprises providing the necessary means for the production process (inputs) and selected samples of producers producing the surveyed products (outputs).

3.7 Reference area

The data refer to Greece as a total.

3.8 Time coverage

From June 2018 onwards, the time series for the agricultural price indices are available on a monthly basis, with base year 2015 (2015=100.0).

3.9 Base period

The base year is 2015 (2015=100.0)

4. Unit of measure

Indices, percentage changes (%).

5. Reference period

The reference period is the month.

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 Authority",* 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

Eurostat legislation:

The compilation of the Input and Output Price Indices in agriculture and livestock is governed by voluntary agreements among EU Member States and Eurostat. The foundations of these agreements were laid down in the beginning of the 70s.

6.2 Data sharing
None

7. Confidentiality Top

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

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 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

8.1 Release calendar

At the end of September of each year ELSTAT publishes a release calendar with the precise release dates of statistics for the following year.

8.2 Release calendar access

The press releases calendar is disseminated to the media and it is available to users for free. The release calendar is also posted on the web page of ELSTAT, "Press Releases" / *"Release Calendar"*:
http://www.statistics.gr/en/calendar

8.3 User access

In compliance with the Community legal framework and the European Statistics Code of Practice, ELSTAT disseminates national statistics on ELSTAT's website respecting professional independence and in an objective, professional and transparent manner in which all users are treated equitably.

In this content, data are released simultaneously to all interested parties and users through the press release on the Input and Output Price Indices in Agricultural and Livestock Production, which is released on the webpage of ELSTAT according to the release calendar. The press release can also be transmitted to users by fax or e-mail. In addition, data are transmitted to Eurostat on a predefined date, at the same time they are released at national level.

Neither users nor the government have access to the data prior to their publication.

9. Frequency of dissemination   Top

The Input and Output Price Indices in Agricultural and Livestock Production are disseminated on a monthly basis.

10. Accessibility and clarity   Top

10.1 News release

Every month, approximately 45 days after the end of the reference month, at 12:00, a press release is published presenting all recently compiled indices in Greek and English. This press release is disseminated to the media and to other users, free of charge, through e-mail. This press release is available on the website of ESLTAT (www.statistics.gr) and also available on the point at:

http://www.statistics.gr/en/statistics/-/publication/DKT30/-

10.2 Publications

Data on the input and output price indices in agricultural and livestock production (without subsidies) can be found in the following publications of ELSTAT:
-    "*Monthly Bulletin*":
    http://dlib.statistics.gr/portal/page/portal/ESYE/categoryyears?p_cat=10007366&p_topic=10007366

-    "*Statistical Yearbook of Greece":*
    http://dlib.statistics.gr/portal/page/portal/ESYE/categoryyears?p_cat=10007369&p_topic=10007369

-     "*Concise Statistical Yearbook of Greece*":
    http://dlib.statistics.gr/portal/page/portal/ESYE/categoryyears?p_cat=10007372&p_topic=10007372

 as well as in specialized publications of Eurostat on agricultural and livestock sector.

10.3 On-line database

There is no on-line database for the Input and Output Price Indices in Agricultural and Livestock Production.

10.3.1 Data tables - consultations

In 2018, total access to the website as regards the API amounted to 20,631 hits. There is no possibility to make the distinction between users' consultations on data tables and users' consultations on metadata.

10.4 Micro-data access

Microdata are made available to users after their submitting a request to the:
Division of Statistical Information and Publications

46, Peiraios and Eponiton Str.,

18510 Piraeus

Tel: +30 213 135 2022

Fax: +30 213 135 2312

http://www.statistics.gr/en/provision-of-statistical-data

For confidentiality reasons access to microdata is granted to users only under strict conditions and by always adhering to the relevant procedure.

10.5 Other

In addition to transmitting data to Eurostat, users can be given data or other statistical analysis, through fax or e-mail, upon request, after submitting an application to the Division of Economic and Short-term Indices Division / Wholesale Prices and Price Indices Section or to the Statistical Information Dissemination Section. Users can submit their requests to the following e-mail addresses: k.thomas@statistics.gr, n.panagiotakou@statistics.gr, data.supply@statistics.gr and data.source@statistics.gr

Users can also submit their requests electronically, through the portal at:
http://www.statistics.gr/statistical-data-request

More links for data dissemination:

http://dlib.statistics.gr/portal/page/portal/ESYE/
http://www.statistics.gr/en/statistics/-/publication/DKT30/-

http://ec.europa.eu/eurostat/data/database (till 2009 under the title: Agricultural prices and price indices)

10.5.1 Metadata – consultations

In 2018, total access to the website as regards the API amounted to 20,631 hits.

10.6 Documentation on methodology

The methodology on the compilation of the Index is set out by ELSTAT, by fully taking into consideration international practices and more specifically instructions, guidelines and standards of Eurostat, which are stipulated in the methodological manual : "Handbook for EU Agricultural Price Statistics" which is available at the following link:

http://ec.europa.eu/eurostat/ramon/statmanuals/files/Handbook for EU Agricultural Price Statistics 2008.pdf

In addition, users can find further details on sources and methodology used for the compilation of the index in the methodological publication of ELSTAT on the Input and Output Price Indices in Agricultural and Livestock Production, which is available on the webpage of ELSTAT at:

http://www.statistics.gr/en/statistics/-/publication/DKT30/-

10.6.1 Metadata completeness – rate

The metadata of the API are posted on the webpage of ELSTAT at the link:

www.statistics.gr, with metadata completeness amounting to 100%.

10.7 Quality documentation

A concise user-oriented quality report is available on the website of ELSTAT at :
http://www.statistics.gr/en/statistics/-/publication/DKT30/-

11. Quality management

11.1 Quality assurance

Quality controls and validation of data are carried out during the whole process of the compilation of the indices: from the data collection stage to the final compilation of the indices.

First of all, well-trained and experienced staff is utilized for all the stages of the compilation of the indices, that is for data collection (including communication with the producers and enterprises), initial checks, data entry and final checks, which are conducted after the calculation of the indices. This way, the personnel have a comprehensive and longitudinal image of the producers and enterprises under their responsibilities.

Data are validated either before or after data entry by means of logical checks. During data processing the data are checked in order to identify and correct any errors. When an error is identified, data are further investigated, in cooperation with producers and enterprises in order to confirm that it is an error or it is just an unusual price. At the same time, data are checked for completeness, accuracy and consistency of the correlating variables.

The indices are calculated by means of specialised software, through computation routines, thus eliminating any errors to the final results. Nevertheless, even during this stage, consistency checks are carried out to the final results, mainly by means of comparing the percentage changes of the sub-indices and their impact on the general input and output indices.

Moreover, in order to ensure the quality of data, all the procedures that are described in the circulars on the Quality Policy of ELSTAT are followed: http://www.statistics.gr/en/policies

11.2 Quality assessment

All the aforementioned quality checks ensure high reliability of the Input and Output Price Indices in Agricultural-Livestock Production. Furthermore, theses indices are being compiled in Greece since 1967, thus the competent staff has an accumulated experience in this area. In addition, concepts and definitions of variables, as well as relevant methodology follow European and international standards and guidelines.

12. Relevance

12.1 User needs

The Input and Output Price Indices in Agricultural-Livestock Production cover national needs, as well as the needs of European and other users. More generally, they provide statistical information, which is necessary for improving competitiveness and productivity of the agricultural-livestock sector.

Among the main national users are: the government, public services, Agricultural Bank of Greece, other banks, etc. At international level, theses indices are used by Eurostat, the UN, the Food and Agriculture Organisation (FAO), etc.

The compiled indices cover the wide range of users' needs: as concerns domestic market, the indices are used as a tool providing useful information on the activities, competitiveness and productivity of the agricultural-livestock sector, thus helping the government in drawing agricultural policy and agricultural-livestock producers or other agencies in decision making concerning their taking up several initiatives. At European level, there is the need for fully comparable statistics in order to draw the European agricultural policy.

12.2 User satisfaction

The Wholesale Prices and Price Indices Section monitors on a regular basis users' needs in order to satisfy them. More generally, there is a smooth cooperation resulting to the best possible response to user's requests, something that is acknowledged by users.

In addition, ELSTAT conducts:

a.   A users' satisfaction survey.

Every six month, ELSTAT conducts a user's satisfaction survey. The results of this survey are published in the "Library's Newsletter" (in Greek and English), a publication which is issued by the Library of ELSTAT and by the Section of Statistical Information Dissemination, on the basis of information deriving from the User Questionnaire. This publication present semi-annual data on the number of users in combination with other variables, such as the degree of satisfaction of users' requests, the kind of the requested data and the modes of statistical dissemination. These data are presented in the form of tables, absolutes values and percentage points.

b. A User Conference

In accordance with its Annual Statistical Work Programme, ELSTAT, from 2010 onwards, has been conducting a User Conference, on a yearly basis with the participation of representatives of the private and public sector, academics, researchers and research institutes. These conferences give ELSTAT the opportunity to gather comments and interventions made by the users of statistics on issues such as the dissemination of statistical information, access of users to statistics and any omissions in the statistical output. The User Conferences help ELSTAT to draw useful conclusions on how the statistical output and the services provided can be improved so as to meet user's growing needs.

These conclusions are incorporated in the annual statistical work programmes of ELSTAT. More information on the results of the user's satisfaction surveys and on the user conferences are available at: http://www.statistics.gr/en/user-satisfaction-survey

12.3 Data completeness

The compilation of the Input and Output Price Indices in agriculture-livestock and the data provided are fully inline with voluntary agreement between EU Member States and Eurostat.

13. Accuracy and reliability

13.1 Overall accuracy

The indices are characterised by high accuracy. Nevertheless, sampling errors are not taken into consideration because the sampling method used is not random sampling but directed sampling. As regards non-sampling errors, these are mostly due to erroneous counting and to the non-response of some producers or enterprises. The efforts are mostly focused in identifying and correcting as many errors as possible during the revision of data.

Furthermore, on the basis of the agreements between EU Member States and Eurostat and for comparability reasons, these indices are revised every five (5) years and more specifically in the years ending in 0 and 5. Accordingly, the Input-Output Price Indices in Agriculture-livestock are revised every five years with the change of the base years and the renewal of the surveyed products and the corresponding weights.

13.2 Sampling error

Sampling errors are not calculated because the sampling method used is not random sampling but directed sampling.

As sources of price collection (in input), the agricultural cooperatives in each Prefecture (Regional Sections) of the country and the commercial trade are used for the intermediate consumption goods; and for the fixed capital goods formation, the most representative enterprises which sell machinery and agricultural equipment. Price data for the input price index are collected from 665 sources.

For the price collection in output, the agricultural cooperatives in each Prefecture (Regional Sections) of the country, which collect the final products, are used, as well as the commercial and industrial enterprises, which buy the final products directly from the producers. Moreover, prices are collected from various organizations that collect products from the producers (e.g. Currant's Central Cooperative Union, etc), or from agencies that collect and register selling prices of products (Greek Payment Authority of Common Agricultural Policy-OPEKEPE, etc). Price data for the output price index are collected from 745 sources.

13.3 Non-sampling error

a. **Unit non – response**

In case of non-response, the surveyed enterprise is contacted by telephone, or is sent a reminder by fax or e-mail or even a statistical interviewer pays a visit to the enterprise in order to obtain the required information. Total non-response rate of producers and businesses of the index does not exceed 5% of the total sample. Missing values due to non-response are treated by estimation on the basis of current price collection from the neighboring enterprises in Prefectures (Regional units) of the country.

b. **Item non – response**

There are no errors, which have to do with inconsistent use of definitions or with data processing. If some products or varieties of products are not representative any more, or if there are changes in their determining characteristics, they are replaced by new products. In these cases, their calculation, for the base year, is based on the use of the indices of the group in which they belong.

13.3.1 Coverage error
No coverage errors are observed in the Agricultural Register of ELSTAT, on the basis of which the survey on the compilation of the index was designed.

13.3.1.1 Over-coverage – rate
No over-coverage errors (e.g., closed enterprises, enterprises out of the scope of the survey, etc.) are observed in the Agricultural Register of ELSTAT, on the basis of which the survey on the compilation of the index was designed.

13.3.1.2 Common units – proportion
The index is compiled on the basis of a common sample of enterprises for each month, which is renewed with the change of the base year. Therefore, the percentage of common enterprises of the sample among the months is 100%.

13.3.2 Measurement error
Measurements errors occur during data collection. They are identified by means of quality checks and are duly corrected.

13.3.3 Processing error
After data collection a series of processes takes place before the compilation of the index (e.g., weighting of enterprises, calculations by implementing mathematic formulae, tabulation of results, etc). There are some processing errors, such as errors on account of erroneous information provided by the surveyed enterprises. These errors are usually easy to be identified by means of checks and cross-checks of data with the corresponding data of the previous years after contacting by phone the enterprise. There are no processing errors as regards the use of the relevant software application.

13.3.4 Model assumption error
No model is used for the compilation of the index.

14. Timeliness and punctuality Top

14.1 Timeliness
The Input and Output Price Indices in Agriculture-livestock are published 45 days after the end of the reference month.

14.2 Punctuality
The Input and Output Price Indices in Agriculture-livestock are released as scheduled, in accordance with the Release Calendar of ELSTAT.

15. Coherence and comparability

15.1 Comparability - geographical

The definitions of variables for the Input and Output Price Indices in Agriculture-livestock are common throughout EU Member States, thus the survey produces fully comparable results, taking always into consideration specific conditions in each country, which may require minor deviations from methodology.

15.1.1 Assymetry for mirror flows statistics – coefficient

For the API there are no mirror-flows statistics among EU Member States.

15.2 Comparability over time

Firstly, for the period January 2000 - March 2018, the retrospective monthly and annually indices were calculated using the individual annual price index of every product in 2015 year, according to the following type:

$$R_{i\,(2015)}^{(t)} = R_{i\,(2010)}^{(t)} * \frac{100}{\bar{R}_{i(2010)}^{\,(2015)}}$$

Where:

$R_{i\,(2015)}^{(t)}$: is the individual index of product i in the current period (month, year) t with 2015 as base year,

$R_{i\,(2010)}^{(t)}$: is the individual index of product i in the current period (month, year) t with 2010 as base year and

$\bar{R}_{i(2010)}^{\,(2015)}$: is the individual mean annual index of product i in 2015, with 2010 as base year.

15.2.1 Retrospective calculations of price indices

The retrospective calculations of the time series of indicators before 2015 were calculated by dividing the products and groups price indices by the corresponding price index of 2015 (with 2010 = 100,0), so that the changes (monthly and annual) of the time series indicators remain the same.

The retrospective monthly and annual products indices for the years 2015 - 2017 were as follows: firstly monthly product indices were originally calculated with weights of 2015=100 and base values for 2010, and then, these indices were divided by the annual average annual indices in year 2015 (so that in the base year 2015 it is equal to 100.0). The annual aggregated input and output indices, were calculated on the basis of the individual product indices and the new weights of the 2015 revision.

As a consequence, a fully comparable time series for the Input and Output Price Indices in Agriculture-livestock with base year 2015 (2015=100.0) is available from January 2000 onwards.

15.3 Coherence cross-domain

Checks are carried out regularly on the basis of data from other surveys. In addition the data are compared with the results of the annual surveys on agricultural production when such data are available.

15.3.1 Coherence – sub annual and annual statistics

Any small discrepancies observed in the rates of change between the API and the structural statistics are on account of the fact that the index is compiled on a basis of a common sample of enterprises for each month that is renewed with the change of the base year, whereas the sample used for structural statistics changes every year. The common sample of enterprises used for the index ensures the accurate representation of the evolution of the index during several time periods.

15.3.2 Coherence – National Accounts

The API is made available to the National Accounts Division, for the calculation of the provisional estimates. The groups of products of API follow the same sorting with the groups of products of EAA.

15.4 Coherence - internal

The inputs and outputs are associated and therefore the compiled indices are consistent. The indices are characterised by internal coherency since a common data base is used and they are compiled using the same methodology.

16. Cost and burden

The survey on cost and burden conducted by ELSTAT for the year 2018 produced the following results: a) as regards the staff of ELSTAT that is involved in the compilation of the index, the annual cost concerning the hours worked is estimated at 13,164 hours, b) as regards the surveyed enterprises, the average annual burden, expressed in hours worked for filling in the questionnaire, amounts to 1.41 hours per enterprise or 2,180 hours for all the surveyed enterprises.

17. Data revision

17.1 Revision policy

The input and output price indices are published approximately 45 after the end of the reference month. During this first release the data are provisional and they become final after the release of the Press Release in December of every year. The data are revised, in accordance with the Revision Policy of ELSTAT, which is available at the following link:
http://www.statistics.gr/en/policies

17.2 Revision practice

The monthly data on input-output indices are provisional. The data are finalized after the publication of the indices referring to the last month of the reference year and after all the necessary corrections.

Furthermore, on the basis of the agreements between EU Member States and Eurostat and for comparability reasons, these indices are revised every five (5) years and more specifically in the years ending in 0 and 5. Accordingly, the Input-Output Price Indices in Agriculture-livestock are revised every five years with the change of the base years and the renewal of the surveyed products and the corresponding weights.

18. Statistical processing

18.1 Source data

In order to compile the Input and Output Price Indices in Agriculture-Livestock a survey is carried out.
For Outputs, the collected prices refer to the market prices of the products, that it the price received by the producer without the deduction of taxes or levies (except deductible VAT) and without the inclusion of subsidies. The collected prices refer to the prices that the producers receive from the sale of their products to commercial or manufacturing enterprises for delivery in the agricultural holding. If the products are delivered in the purchaser's place of business, then the transportation expenses are deducted from the selling price.

For Inputs, the collected prices refer to the prices paid by the producers to buy the products and services they need for their agricultural and livestock production, they do not include VAT and transport expenses and cover the following: (i) the transactions paid in cash by the producers in the shops where they buy the consumable means that they need for the production, (ii) the transactions paid in cash by the producers - without including VAT and transport expenses- in the shops where they purchase farm machinery necessary for agricultural investment.

As sources of price collection (in input), the agricultural cooperatives in each Prefecture (Regional Sections)

of the country and the commercial trade are used for the intermediate consumption goods; and for the fixed capital goods formation, the enterprises which sell machinery and agricultural equipment. The price data for the input price index are collected from 665 sources.

As sources of price collection (in output) are the agricultural cooperatives in each Prefecture (Regional Sections) of the country, which collect the final products, as well as the commercial and industrial enterprises, which buy the final products directly from the producers. Moreover, prices are collected from various organizations that collect products from the producers (e.g. Currant's Central Cooperative Union, etc), or from agencies that collect and register selling prices of products (Greek Payment Authority of Common Agricultural Policy-OPEKEPE, etc).The price data for the output price index are collected from 745 sources.

For the compilation of the Price Index for "Insurance Expenses" and "Farm Buildings" (non-residential), index changes of insurances, of the cost of the materials and of the labor remuneration is used. These data are drawn from the Consumer Price Index (CPI), "Material Costs Index in Construction of New Residential Buildings" and the "Labor Cost Index of New Residential Buildings index".

18.2 Frequency of data collection

Data are collected on a monthly basis.

18.3 Data collection

Data are collected through a specially designed questionnaire, which is appropriately adjusted for every Prefecture of Greece. The products produced in every Prefecture figure in the questionnaire, and prices are collected for these products, during the reference month. The questionnaires are transmitted in electronic format to all the Regional Statistical Offices of ELSTAT, which are responsible for collecting the data by means of:
- visits paid by ELSTAT's statistical interviewers who interview the surveyed units,
- telephone communication,
- sending the questionnaire by fax
- sending the questionnaire by e-mail

All the questionnaires are sent from the Regional Statistical Offices to ELSTAT by e-mail.

In case of non-response, the surveyed enterprise is contacted by telephone, or is sent a reminder by fax or e-mail, or even the competent staff may pay a visit to the enterprise.

18.4 Data validation

The data are validated by means of logical checks. During data processing any errors are identified and are dully corrected. Special emphasis is placed on the errors that may have major impact on the results. After identifying the errors, those are further checked and cross-checked in cooperation with the price collection sources in order to confirm that it is an error or it is just about an unusual price. At the same time, data are checked for completeness, accuracy and consistency of the correlating variables. Data processing and validation of data are carried out either during or after data entry.

The data are compared with the data of previous months and with corresponding data of previous years and if major inconsistencies are identified, further checks are carried out.

18.5 Data compilation

The monthly Input-Output Agricultural Price Indices are compiled on the basis of the individual price indices of the products and their corresponding monthly weighting coefficients.

The overall index of each price category (input and output) is calculated for every period t as the weighted average of the individual indices of the products i in the current period t according to the following Laspeyres type index:

$$I^t = \sum_{i=1}^{n} R_i^t \ * \ w_i,$$

where:

I^t is the total or overall input or output of the current period (month) t,

R_i^t is the individual index of the product i during the current period t (base 100.0 at base year 0)

w_i is the weighting coefficient of product i (which is the result of the value of production or expenditure of the product i during the base year 0), with:

$$w_i = \frac{p_i^0 q_i^0}{\sum\limits_{i=1}^{n} p_i^0 q_i^0}, \quad \sum\limits_{i=1}^{n} w_i = 1$$

where:

p_i^0 and q_i^0 are, respectively, the price and quantity of product i during the base period 0,

i = 1,2,...n different products

t = current monthly or annual period.

For the input price indices in agriculture-livestock (intermediate consumption, gross fixed capital formation), the individual index R_i^t for the product i in the current monthly period t for the whole country, is the arithmetic mean of the relevant prices of all former Prefectures (according to "Kapodistrias"), where prices collected in the current period t, is calculated according to the type:

$$R_i^{(t)} = \frac{1}{N_i} \sum_{j=1}^{N_i} \frac{P_{ij}^{(t)}}{P_{ij}^{(0)}}$$

where:

N_i: number of varieties of product i from all the sources,

$P_{ij}^{(t)}$: price of variety j of product i during the period t and

$P_{ij}^{(0)}$: mean annual price of variety j of product i at the base year 2015.

For the output price indices (crop output, animal output) the individual index R_i^t for the product i in the current monthly period t for the whole country, is the weighted mean of the relevant prices of all former Prefectures, where prices collected in the current period t, with weights e_{ij}, as the sharing of production in every Prefecture level of product i at the base year 2015. The relevant type is:

$$R_i^{(t)} = \frac{1}{N_i} \sum_{j=1}^{N_i} \frac{P_{ij}^{(t)}}{P_{ij}^{(0)}} * e_{ij}$$

where:

N_i: number of varieties of product i from all the sources,

e_{ij}: production in each Prefecture of variety j of product i at the base year 2015,

$P_{ij}^{(t)}$: price of variety j of product i during the period t and

$P_{ij}^{(0)}$: mean annual price of variety j of product i at the base year 2015.

The annual average individual input indices are calculated as arithmetic means of monthly indices, while, the annual average individual output indices are calculated as weighted averages of monthly indices with weights that derive from the variable basket of production (which includes products available in the market on a monthly basis depending on their production).

Further details on methodology and calculation of the Input and Output Price indices in Agriculture-Livestock, are available on the webpage of ELSTAT, and more specifically in Information Note (2015=100.0) - Agricultural Price Indices (API): http://www.statistics.gr/en/statistics/-/publication/DKT30/-

18.5.1 Imputation-rate
Usually, no imputed values are used to substitute the price collection by sample enterprises. However, in very few cases imputed values are used but not exceeding 0.01%. Missing data (missing values) are treated by estimation (imputed rates), on the basis of the trend of the current price collection from the neighboring enterprises in Regional Units of the country.

18.6 Adjustment

Seasonality influences agricultural and livestock production and as a result some products are not available in the market every month of a calendar year. Therefore, the annual weighting coefficients are distributed only over those months when the products are available in the market.

18.6.1 Seasonal adjustment
No seasonal adjustment.

19. Comment

None

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